

## CHAPTER 10

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**Study Documents Referred to in this Chapter:**

- Center-Based Physical Activity Log
- Home-Based Physical Activity Log
- Missed Physical Activity Session
- Successful Aging Session
- Suspended Status

## CHAPTER 10

### PHYSICAL ACTIVITY AND SUCCESSFUL AGING

#### 10.1. Introduction

LIFE is a multi-center randomized comparison trial involving two treatment groups: a “Successful Aging” health education intervention and a structured physical activity intervention. As a general rule, study interventionists should remain masked to the results from formal assessments. This is particularly critical for follow-up testing that will be conducted in each clinic to assess the effects of the treatments on a variety of health outcomes. At no time should interventionists discuss individual participants in LIFE with personnel who may be conducting formal follow-up assessments. Examples of outcome data that the interventionists will need access to are (1) information from the medical records to assist in preparing individual prescriptions for physical activity, and (2) prescription medications being taken by participants assigned to the physical activity Group. Because this is a multi-center trial, it is very important that interventionists follow the intervention protocol closely to reduce, as much as possible, treatment variability between centers. Quality control is critical to the success of the trial.

#### 10.2. General overview of the LIFE intervention:

Participants will be randomized to the **physical activity** intervention or to the **successful aging** health education comparison group. The physical activity intervention is of moderate intensity and will consist of aerobic, strength, flexibility, and balance training, with a target duration of 150 minutes per week. Based on our experience, these interventions can be successfully delivered to older individuals, including frail persons, and can result in sustained participation rates and improved physical function. **Spanish speaking** staff will be available when needed. The Successful Aging group will consist of a series of classes, lectures, and field trips/outings aimed at increasing awareness of important health issues relevant to older adults so as to control for social contact, attention, and perceived benefit of this arm of the intervention.

#### 10.3. Theoretical issues - behavioral strategies and principles

The intervention work of the collaborative group of scientists participating in the trial has been based upon a **social cognitive model of acquisition and maintenance of health behaviors**. The social cognitive approach views behavior (including health behavior) as being acquired and maintained through a complex set of behavioral, cognitive, and environmental conditions. Social cognitive intervention strategies have been found in a number of studies to be effective with older as well as younger adults, and with programs aimed at physical activity as well as with other forms of health behavior change. Social cognitive theory concepts are combined with strategies derived from recent applications of the Transtheoretical Model to the area of physical activity (e.g., consciousness raising and other cognitive approaches in the preparation and action phases early in the program; reinforcement management and related behavioral approaches in the later phase of the program). These are applied

systematically in administering the intervention in this study.

Specific behavioral strategies for each intervention arm are detailed in Section 10.10, section I for the physical activity intervention and Section 10.11.1 for the Successful Aging health education group.

### **Practical Issues**

Commensurate with current physical activity recommendations for health, subjects in BOTH study groups will initially receive the same American Heart Association pamphlet information, which reflects the current national guidelines concerning the general health benefits of physical activity. Presentation of this basic information across both intervention groups will standardize subjects' level of knowledge about general aspects of physical activity at the beginning of the study. In addition subjects randomized into the physical activity intervention will receive printed materials from the successful aging group sessions. The successful aging printed materials will be provided to the participants in the physical activity intervention during the last group behavioral counseling session in the adoption phase and at the end of the trial.

## **10.4. Physical Activity intervention**

### **Components of training**

The physical activity program will include aerobic, strength, flexibility, and balance training. We will focus on **walking** as the primary mode of physical activity for preventing/postponing the combined outcome of major mobility disability or death, given its widespread popularity and ease of administration across a broad segment of the older adult population. Other forms of endurance activity (e.g., stationary cycling) are utilized when regular walking is contraindicated medically or behaviorally. Each session is preceded by a brief warm-up and followed by a brief cool-down period. In light of current clinical guidelines, participants are instructed to complete **flexibility** exercises following each bout of walking. Moreover, following three bouts of walking each week, participants are instructed during the initial phase of the program to complete a 10-minute routine that focuses primarily on **strengthening physical activity**. Supplementary instructional materials (e.g., videotapes, printed materials) are supplied to participants in this group, to reinforce the strength training occurring during setting-based instruction, so that it can be generalized to the home environment. **Balance training** is performed by all participants. In addition, the intervention will involve encouraging participants to increase all forms of physical activity throughout the day. This may include activities such as leisure sports, gardening, use of stairs as opposed to escalators, and leisurely walks with friends.

**Intensity of training.** The participants will be introduced to the intervention exercises in a structured way such that they begin with **lighter intensity and gradually increase** over the first 2-3 weeks of the intervention. We will promote walking for physical activity at a **moderate intensity**. We will rely on **ratings of perceived exertion** and physical activity heart rate as a method to regulate

physical activity intensity.<sup>293;294</sup> Using Borg's scale,<sup>282</sup> that ranges from 6 to 20, participants are asked to walk at an intensity of 13 (activity perception SOMEWHAT HARD). They are discouraged from exercising at levels that approach or exceed 15 (HARD) or drop to a rating of 11 (FAIRLY LIGHT) or below. Heart rate will be monitored weekly during the walking phase of the program to confirm the target training intensity. A set of lower extremity strengthening exercises are performed (2 sets of 10 repetitions) at an intensity of 15 to 16 using Borg's scale for the strength training component of the program.

### Frequency and duration of training

The intervention will consist of a general weekly walking goal of 150 minutes. This is consistent with the public health message from the Surgeon General's report that moderate physical activity should be performed for 30 minutes on most if not all days of the week (150-210 total minutes). This goal is **approached in a progressive manner** across the first 3 months of the trial. There are multiple ways that the goal can be achieved, based on the physical abilities and constraints of each participant. In light of the **heterogeneity** of the target population (with respect to physical capabilities and health status), the pilot study allows us to more specifically define the variability in participants' ability to reach this weekly target, to estimate the dose-response relationship between incremental increases in weekly physical activity and changes in the primary and secondary outcomes, and to better specify the level of ongoing behavioral instruction needed to achieve such changes.

Intervention staff contacts for physical activity group			
Week	Center-Based Physical activity	Additional Behavioral Group Counseling Session	Telephone Counseling Contact
Adoption: 1-8	3 times each week	10 scheduled visits, immediately following a scheduled center-based physical activity session	1 time each month
Transition: 9-24	2 times each week		1 time each month
Maintenance: 25 – end of the trial	Offered Once per week		1 time per month

### Intervention phases

The physical activity intervention will comprise the following three phases:

#### Pre-adoption phase (up to 6 weeks)

In order to allow individual participant's schedules to match up with the behavioral session schedule and the formation of an adequate number of group members (minimum 8 participants), each participant will initially participate in the **Pre-adoption** phase of the intervention. They attend center-based exercise sessions 1 to 3 times per week at their discretion. This period will allow participants to become familiar with the exercise procedures, facility, and staff.

The time for participation in the **Pre-adoption** phase may vary but will not exceed 6 weeks.

### **Adoption phase (weeks 1-8)**

Each participant randomized to the physical activity group will receive a 45-minute individualized, face-to-face **introductory session**, during which time the program is described, questions are answered, and results from each individual's baseline assessment are utilized to tailor the program with respect to physical activity progression, so as to optimize safety and participation levels.

- For the first eight weeks, three **center-based** physical activity instruction sessions per week are conducted in a supervised setting. These sessions are used to initiate the walking program and to introduce participants to the strength, stretching, and balance portions of the program in a safe and effective manner. The supervised setting will allow instructors to better tailor the program to individual needs and abilities early on, so as to prevent early dropout and to facilitate the building of self-efficacy and support, which have been found to be key to long-term physical activity maintenance. These physical activity sessions will involve 40-60 minutes of physical activity instruction. Throughout the adoption phase of the intervention (10 scheduled sessions total), physical activity instruction is followed by 30 minutes of group-based behavioral skills training. The group structure is used for motivational purposes, to promote the concept of independence, and to use social problem solving to overcome barriers and relapses related to physical activity.
- In addition to these group sessions, individuals are contacted briefly via **telephone** once per month to discuss their physical activity participation both within and outside of the supervised setting, to assess understanding of and tolerance to program goals, to review progress and concerns, and to problem-solve around barriers related to participation.

### **Transition phase (weeks 9-24)**

- During weeks 9-24 of the program, the number of **center-based** sessions is reduced to two times each week. These are supplemented by **home-based** endurance/strengthening/flexibility exercises as a means of promoting physical activity in multiple settings. This has been found to be a key feature of sustained physical activity participation among older as well as younger adults. Appropriate community based physical activity facilities (e.g., YMCAs; senior centers) are identified for those persons preferring to undertake center-based activities on a more frequent basis throughout the week.
- Monthly **telephone contact** will continue.

### **Maintenance phase (week 25 through the end of trial)**

The Maintenance phase will consist of:

- Once-per-week **center-based** group physical activity sessions offered to each participant.
- Monthly brief **telephone contact** with each participant, to evaluate progress

and provide continuing problem-solving and support around barriers to adherence.

- Monthly to quarterly project **newsletters**, used to promote ongoing support and participation, and to provide ongoing information related to physical activity participation and adherence.

#### **10.4.1 Stepped-care approach to physical activity promotion**

Initial physical activity prescriptions are individualized, based on participants' baseline levels of endurance capacity, strength, balance, and behavioral readiness for the regimen. Once participants are randomized, the stepped-care model is implemented with the assistance of a computerized tracking system.

#### **10.4.2. Monitoring of participant information and scheduled intervention sessions**

When participants first enter the physical activity intervention, their **demographic and contact information** are entered into a structured data window that is part of the computerized tracking system. In addition, the computer will prompt interventionists to complete **session cards** for participants at each scheduled visit. These session cards include information on attendance and the amount of physical activity completed during the visit. In addition, on a weekly basis, interventionists will enter the number of steps taken each week during the previous week (self-monitoring using a step counter) and the total number of minutes of physical activity performed each week of the previous week (recorded in logs). In this manner, we can track and promote physical activity that is occurring both at the center and off site.

#### **10.4.3 Behavioral strategies for the physical activity group**

During the **adoption and transition phase** (first 6 months) the primary behavioral techniques will include:

- 1) **Personalized feedback and setting of individualized goals**, based on functional testing that occurs during the initial center-based physical activity session, and based on determination of an individualized physical activity program that is tailored to physical performance test results. Additional regular feedback on level of activity is obtained via use of a Yamax digi-walker/pedometer.
- 2) **Specific structuring of expectations** concerning the effects of physical activity, to ensure that subjects' expectations are reasonable and realistic.
- 3) **Consciousness raising** and similar experiential processes related to the problems of under-activity, and the benefits of adopting a more active, heart-healthy lifestyle (e.g., self-reevaluation processes)
- 4) The use of a staff-participant **contract** to clarify goals and increase initial participant commitment to the goals. This contract, read and signed by the participant and staff member following random assignment to the physical activity group, restates the responsibilities of both the participant and project staff with respect to the study, and is used to note the specifics of the first several weeks of the intervention (e.g., days, location).

- 5) Frequent **individual instruction** (via telephone and through the scheduled center-based sessions), support, goal-setting, and feedback with a trained staff person throughout the intervention period, tailored to facilitate each individual's ongoing behavioral participation as well as performance level.
- 6) Provision of all center-based **physical activity equipment** (e.g., exercycles), as deemed appropriate.
- 7) Distribution of easy-to-read **written materials** to prompt regular and appropriate participation in the physical activity programs.
- 8) Instructions to maintain a simple daily **activity log or calendar**, which details duration, frequency of activities being undertaken, strength training performed, and the number of steps recorded on the digi-walker. Such logs have been used extensively in previous studies of older adults and have been found to be brief and easy to complete by older men and women across periods spanning 12 to 24 months. Participants will review these logs weekly with the field center staff during the adoption and transition phases of the study (months 1-6) and mail in the logs to the field centers monthly during the maintenance phase of the study (month 7-12). This approach has proven to be successful in other physical activity studies that we have undertaken.
- 9) Instruction in the use of **visual prompts** to encourage and reinforce successful change.
- 10) Monitoring of **immediate disincentives** to adherence (e.g., discomfort, perceived inconvenience) on the activity logs/calendar, and active brainstorming with staff members via telephone to minimize them.
- 11) Introduction to **relapse prevention** strategies via telephone, mail, and setting-based contacts by identifying and planning for high-risk situations such as illness, in which early relapse from physical activity programs is likely. This also includes instruction in problem-solving methods and skills to help individuals develop and apply strategies, so that they may overcome barriers to attaining their physical activity goals.

During the **maintenance phase**, which runs from the 6-month visit until the end of the trial, the primary behavioral techniques will include:

- 1) **Regular updating of behavioral and performance-based goals**, to ensure that goals remain realistic yet challenging.
- 2) Continued **logging** of target behaviors.
- 3) Receipt of relevant individualized **feedback** from the physical activity classes through use of summary information on training goals provided by the computerized tracking system.
- 4) Further development of plans to keep the regimen **flexible**, with respect to location, scheduling, and other issues, to accommodate preferences as well as periodic fluctuations in motivation and schedules.
- 5) Increased instruction in and use of **self-rewards** and other self-comparison, reinforcement management strategies for behavioral maintenance.<sup>287</sup>
- 6) Increased practice in the application of subject-initiated **relapse prevention and problem-solving strategies**, with relevant feedback and support provided by the intervention staff through telephone and center-based contacts.
- 7) Continued use of **stimulus comparison** strategies (e.g., visual prompts) to



- promote maintenance.
- 8) Continued receipt of **social support** via regular staff telephone, mail, and setting-based contacts.

#### 10.4.4 Physical Activity Intervention Randomization Protocol

- **Congratulations!** You have just been assigned to the physical activity intervention group.
- **Provide brief overview of the program**
  1. **Purpose:** Intervention is designed to help older adults improve their physical function and to prevent disability
  2. **Center-based physical activity:** explain that participants are expected to attend supervised physical activity sessions
    - 3 X's each week for the first 2-months;
    - 2 X's each week for months 3-6;
    - 1 X each week for months 7-18.In addition, they should be told that they will be asked to complete home-based physical activity on days that they do not exercise at the center. The amount of exercise will gradually increase over time to the point that they will eventually be active on most days of the week.
  3. **Group Sessions:** explain to participants that after they are familiar with the physical activity program, they will be placed in a group with 10-15 other older adults. This group will then meet once a week after one of the exercise sessions for 10 weeks to talk about skills that they need to have to in order to make their physical activity program a success.
- **Provide and review information packet:**
  1. Interventionists contact information
  2. Maps/location of facility
  3. other
  4. Encourage the participant to call if he/she has any problems or questions.
- **Inform participant** that the physical activity program coordinator will contact her/him to schedule their initial face-to-face contact.
- **Answer any questions** that the participant may have at this point in time. Tell the participant that you look forward to working with him/her and that you know they are going to be very pleased with the changes that they experience over the next several months.
- **Complete Physical Activity Participant-Staff Contract**
- **Discuss participant's transportation options** (i.e., to the intervention)
- Follow all clinic **Check out Procedures; Validate parking (if necessary)**

- **Thank** the participant and **say good-bye**.
- **Print randomization assignment page; send email notification; file hardcopy.**
- **Remember to instruct the participant to not discuss their group assignment (physical activity or successful aging) with any LIFE assessment staff.**
- **Intervention referral form:** Complete randomization referral form and email it to physical activity interventionists.
- **Update** contact database.

## Physical Activity Intervention Description and Expectations Contract

Congratulations! You are now part of the LIFE Physical Activity Program. You will participate in a structured, supervised physical activity program that is designed to enhance your health and prevent disability. A trained, certified exercise specialist will teach you how to do the exercises and ensure your safety. The program consists of walking and strength, flexibility, and balance training.

### Expectations for Participation:

- ♦ For the **first 2 months** of the study, you will come to the center **3 times** each week to participate in the physical activity program.
- ♦ For **months 3-6**, you will complete your physical activity at the center **2 times** each week and will be physically active **on your own** on the other days of the week.
- ♦ For **months 7-18**, you will complete your physical activity at the center **1 time** each week and will be physically active on your own on the other days of the week.
- ♦ You will also participate in group sessions with 10-15 other study participants. This group will meet 1 time per week, after the physical activity session, to talk about skills that you need to make the program successful.
- ♦ Attend your scheduled health evaluations. These will occur 6, 12, and 18 months from now.
- ♦ Keep in contact with the staff so that we know how you are doing.

Your signature below indicates that you understand your LIFE study condition and what we have asked you to do.

Signed (participant): \_\_\_\_\_ Date: \_\_\_\_\_

Witness: \_\_\_\_\_ Date: \_\_\_\_\_

#### 10.4.5 Draft Letter to PCP about LIFE Study

An informational letter to each participant's primary care physician will be sent at the time of randomization to all LIFE study participants (see draft).

<Physician's name>

<Address>

<Date>

Dear Dr. <Name>:

Your patient, \_\_\_\_\_, has been enrolled in the Lifestyle Interventions and Independence for Elders (LIFE) study. This clinical research study is sponsored by the National Institute on Aging. A total of 400 sedentary persons aged 70-85 years who are at risk of disability will be followed for >1 year at 4 sites: the University of Pittsburgh Department of Epidemiology, Wake Forest University School of Medicine in Winston Salem, NC, the Cooper Institute in Dallas, TX, and Stanford University in Palo Alto, CA.

This research study will assess 2 different programs designed to enhance independence and to improve your patient's health. The 2 programs being evaluated are a Successful aging workshop program and a physical activity program. **Your patient has been randomized to the Physical Activity program.** The program, supervised by trained exercise physiologists, includes:

- Moderate intensity walking
- Strength training with ankle weights
- Balance and flexibility training

Your patient is expected to attend supervised sessions 3 times/week for 8 weeks at our exercise facility at (\_\_\_\_\_) and then transition to a home-based physical activity program over the subsequent months. The study will last up to 2 years.

The Principal Investigator of the (field center) is (field center PI). **The Coordinator of the Physical Activity Program is (interventionist).** He/she can be reached at (phone number) if you have any questions or concerns.

Sincerely,

Field Center Principal Investigator/Project Director

## 10.5. Aerobic component of the physical activity intervention

### 1 Selecting type of physical activity and intensities

The primary physical activity is walking, preferably not on a treadmill. Participants are taught to assess Rate of Perceived Exertion Borg scale (RPE) during the initial supervised physical activity sessions and periodically checked through out the study to assure continued understanding. We will promote a walking pace at a moderate intensity as defined as an RPE of 11 to 13. If the RPE drops to a rating below 11 or exceeds a rating of 15 the participant's walking pace is adjusted. To ensure the goal of "moderate" physical activity intensity, physical activity heart rate will be monitored at weekly intervals during the adoption phase of the study. Exercise training sessions will be terminated if the exercising heart rate is observed to be greater than 90% of age-predicted maximal heart rate. The participant will subsequently be reevaluated for medical contraindications to exercise and re-assessment of their exercise intensity goals. In addition, blood pressure and heart rate are monitored before and after physical activity during all clinic-based training sessions and exercising blood pressure will also be monitored on a weekly basis in the adoption phase of the trial to ensure participant safety. Currently blood pressure and heart rate are monitored **before and after** the walking activity at each center-based intervention session, and **during** the walking at **weekly** intervals. To enhance safety, blood pressure and heart rate should be monitored **during** the walking at **each** center based session in participants who had experienced any of the following during a previous physical activity session:

- Resting blood pressure systolic  $\geq 200$  mm Hg or diastolic  $\geq 100$  mm Hg
- Decrease in diastolic blood pressure  $\geq 20$  mm Hg during the activity
- Increase in systolic blood pressure to  $\geq 250$  mm Hg or in diastolic blood pressure  $\geq 115$  mm Hg during the activity
- Resting heart rate  $\geq 120$  bts./min or  $\leq 45$  bts./min
- Increase in heart rate  $\geq 90\%$  of age predicted maximum
- Unusual or severe shortness of breath
- Chest pain or including chest discomfort or pressure, left arm pain, report of indigestion or stomach discomfort
- Palpitations
- Light headedness, dizziness or feeling about to faint
- A physical activity session had to be discontinued because of other symptoms excluding musculoskeletal symptoms (eg., knees, ankles, hips) reported by the participant.

\*If participants exhibit hypertensive responses, exaggerated heart rate responses, or symptoms with exercise (See BP guidelines Ch. 10, p. 198), they will be referred to their PCP for follow up and blood pressure and heart rate will be subsequently monitored during exercise at all onsite physical activity sessions.

The walking portion of the intervention should be performed in an area where the participant can be observed by the interventionist at all times, and there is access to a telephone and other emergency equipment.

## 2 Training Program

- A. There are three phases to the aerobic intervention program: Adoption phase (weeks 1-8), Transition phase (weeks 9-24), and the Maintenance phase (weeks 25 to trial completion). For ten weeks of the adoption and transition phase, one physical activity session per week is followed by a 30-minute behavioral session and once per month each participant receive a counseling phone call.
- B. This design for the first 8 weeks after randomization, as stated above, is defined as the **Adoption phase**. The phase is started of with a 45-minute face-to-face introductory session during which time the program is described, questions are answered and the results from each individual's baseline assessment are used to tailor the program with respect to physical activity progression. Although we want each participant to achieve the total number of minutes per week required by the physical activity intervention, we realize that it may not be possible for all participants to immediately be capable of exercising at longer durations. For this reason, the goal is 60 minutes of walking per week during the first three weeks. Further, during the first three weeks it is acceptable for individuals who are very de-conditioned to work at an RPE < 11. Physical activity will increase to 90 minutes per week and increasing intensity approaching an RPE of 13 for weeks 4-6 and finally 120 minutes per week starting at week 7. This gradual increase in total energy expenditure should make it easier for participants to reach their goal and may minimize fatigue, soreness, injuries, and dropouts. During the adoption phase, all walking session will take place under supervised conditions and we anticipate the participants coming to the center 3 days per week. Thus the initial physical activity sessions will start as approximately 20 minutes each of walking and over the subsequent weeks gradually increase to 40 minutes. While these guidelines serve only as goals, the physical activity sessions will be tailored to each participant's own ability. For example, participants who are very de-conditioned at baseline may have to perform the walking program in a more "intermittent" fashion. **In addition, if the target RPE intensity of 11 to 13 cannot be achieved then the interventionists will place more emphasis on the time spent walking to maximize the achievement of the walking duration goals proposed. It is acceptable and expected that some participants will need to perform their walking at varying timed intervals interspersed with rest periods (approximately 5 min.). These intervals should be tailored to the individual participant and continuous walking should be encouraged as the person becomes more comfortable with the exercise protocol.**

- C. The second phase or **Transition phase** will cover weeks 9-24, and during this period participants begin to perform part of their physical activity prescription outside of the research center physical activity lab. Participants will report to the intervention site 2 times a week for supervised physical activity sessions lasting 40-60 minutes. Participants are responsible for completing and documenting the remainder of their weekly-prescribed physical activity under unsupervised conditions (i.e. free living). Appropriate community based physical activity facilities are identified to help the participants make the transition from the research center based physical activity to community-based exercise.
- D. The final phase is the **Maintenance phase**. This segment extends from week 25 to the end of the trial. Participants will report to the intervention site for once a week optional supervised physical activity session lasting 40-60 minutes. Participants are responsible for meeting and documenting the remainder of their required physical activity dose on their own. It is hoped that participants will use the skills learned and physical activity locations identified during the transition phase to maintain their walking program. As in the Adoption and Transition phases, a monthly counseling phone call will occur.
- E. During each visit to the study center participants are assessed briefly assessed for cognitive function by a staff. This assessment will determine if a participant is capable of safely participating in physical activity that day. If a participant is not cleared for participation, formal documentation is completed stating the relevant reasons, the appointment is rescheduled, and the appropriate referrals made.
- F. A typical physical activity session will consist of a 5-min warm-up consisting of low intensity walking (RPE < 9) or, when walking cannot be performed at an RPE <9, stationary cycling. Participants then train at the RPE for the amount of time prescribed. As stated above the duration and intensity of each session generally will depend on the individual's capabilities and the phase of the study they are in. In general each session is that time required to obtain one-quarter or one-third of the total weekly prescribed. But the duration can be modified as needed based on participant scheduling issues or problems that require adjustment. At intervals throughout the training session participants are asked to assess their RPE. At the end of each physical activity session there will then be 3 minutes of warm down which will consist of gradually reducing the walking speed.
- G. Unforeseen circumstances may prevent an individual from coming to the center, but still allow for them to continue exercising, e.g., a trip planned out of town for a few weeks. In these situations, participants are sent with a physical activity prescription. We will have the precise data from the participant's physical activity sessions in the laboratory,

and can use this information to develop a specific and accurate physical activity prescription. They will also be asked to keep a diary of the frequency and duration of their physical activity sessions.

## **1 Recording of Training Data**

A. At the end of each daily session, the average training RPE, session duration, and distance covered is calculated and recorded. Thus a consistency of training can be created and data can be observed for daily training sessions to adjust for weekly physical activity duration compliance.

B. These data are plotted for each subject and compared to previous data. When a discrepancy appears, the data are reviewed; subjects are questioned, etc. in an attempt to find the reason(s). Comments are to be made in each subject's file.

## **2 Recording Home Based Training sessions**

A. Participants are instructed from the very first physical activity session on how to plan, implement, and document their intervention program. A training log is given to participants for documenting their physical activity while they are at home. Intervention staff will review the training logs weekly during the adoption and transition phase and discuss any discrepancies identified with the participant. During the maintenance phase the activity logs are mailed into the field centers monthly by the participants.

B. The training logs will show data participants must document to receive credit for completing. Specifically, date, duration of physical activity, the number of steps, strength training weight (completed sets/ reps.).

## **10.6 Strength training component of the physical activity intervention**

### **1 Overview**

The strength training protocol is performed by all subjects randomized into the physical activity intervention. Strength training will focus primarily on four lower extremity exercises and is followed by a brief program of lower extremity stretching. Variable weight ankle weights (10 and 20 lb) are provided to all subjects. The goal is that the strength training component is performed three times per week during all phases of the intervention.

**Physical environment:** The physical space to accommodate the strength training component of the intervention should be a small room or classroom (approximately 400 sq. ft.). The room will need to accommodate chairs, participants and equipment. There should be enough space between chairs so that participants can hold their arms out to the sides without touching one another. In addition to the room space, a sturdy chair and a medium bath towel are need for each participant.



The ideal chair should have a firm seat with no arms and the chair should be high enough so that when participants sit all the way back, their feet barely touch the floor. The back of the chair should be high enough so that participants can hold onto it while standing behind it. The towel can be placed under the knees during the seated knee extension exercises to raise the participant's feet off the floor.

## 2 Training Program

As with aerobic training program there are three phases to the aerobic intervention program: Adoption phase (weeks 1-8), Transition phase (weeks 9-24), and the Maintenance phase (weeks 25 to trial completion). The components of all three phases of strength training are similar with the primary distinction being the location of performance. As each subject progresses through the phases of the study, they are responsible for logging their own training data and reporting the logs to the study interventionists.

- A. The primary focus for the strength training intervention during the **Adoption phase** is: to orient the subjects to the concept of strength training, train the participants to perform and complete the exercises, and to instruct the subjects on training progression, and record keeping.
- B. The second phase or **Transition phase** will cover weeks 9-24, and during this period participants begin to perform part of their physical activity prescription outside of the research center physical activity lab. Participants will report to the intervention site 2 times a week for supervised physical activity sessions lasting 40-60 minutes (including the walking and strength training). Participants are instructed on keeping their own training records and for completing and documenting the additional strength training session at home or other "off-site location".
- C. During the **Maintenance phase**, participants will report to the intervention site once a week as needed for a supervised physical activity session lasting 40-60 minutes. During this visit the study interventionists will review the training logs. For those participants who do not elect to participate in the intervention site training, monthly behavioral contacts will continue and activity logs are mailed to the field center monthly.

### D. Specific strength training and flexibility exercises

The strength training intervention will consist of the following exercises:

Physical activity1: Wide Leg Squat

Physical activity2: Standing Leg Curl (with ankle weights)

Physical activity3: Knee Extension (with ankle weights)

Physical activity4: Side Hip Raise (with ankle weights)

Physical activity5: Toe Stand

Cool-down (stretching)

### **Intensity and progression:**

For each physical activity the subjects are instructed to perform 10 repetitions (1 set), rest for 1 minute and then perform a second set. For the leg curl, knee extension, and side hip raise exercise, the participants are instructed to perform each set of ten and then alternate legs. This will minimize the total time to perform the strength training exercises without compromising the quality of the program. The intensity and progression of the strength training program are monitored using the modified perceived exertion scale (RPE). Subjects are educated in the use of the RPE scale and record their individual RPE at the end of each exercise. For the strength training exercises, the participants should be instructed to report a “localized” RPE for the muscle groups involved in the particular exercise.

Selection of appropriate weight and progression: For each individual physical activity that uses the ankle weights (leg curl, knee extension, side hip raises), the appropriate starting weight is determined by the study interventionist. At the start of a participant’s physical activity program they will be given a pair of ankle weights to use for training. Initially the ankle weights will contain a small amount of weight (**3 lbs for men and 2 lbs for women**). During the initial instruction to the strength training portion of the physical activity intervention, the interventionist will orient the subject to strength training and begin with weight settings that are “very easy” (RPE 10 to 12) for the subject to accomplish. In addition, participants are to be instructed to not use their ankle weights during walking or in the performance of regular household activities. They should only be worn for the strength training exercises. Participants should also be advised to wear comfortable clothing when performing their strength training exercises and that a comfortable pair of socks is advisable to prevent the development of skin irritation around the lower leg where the legs weights are to be attached.

It is imperative for participants to physical activity at the proper intensity during strength training to maximize the training benefits. Intensity can be gauged using the RPE Scale (See forms). This scale ranges from 6 to 20 and is used to rate the difficulty of lifting a given weight. The participants should report a local RPE for the active muscle groups performing the exercise. The rating is determined for each physical activity after completion of the second set of 10 repetitions. After the initial 2 weeks, participants will physical activity at an intensity of 15 to 16 on the RPE scale.

After the first week, subjects should be encouraged to complete each physical activity with weights that they can lift at least ten times with only moderate difficulty (RPE rating of 15 to 16). If on or more of the exercises seems too difficult (e.g. if 10 repetitions cannot be completed), then the weight is too heavy and should be reduced.

After completion of week 2, subject will have the difficulty of each physical activity reassessed using the current training weights. The RPE reported from the training sessions are evaluated by the intervention staff together with the subject.

For exercises in which the RPE has dropped below 14, a small increment in weight is added (usually 1 to 2 lead “pellets”).

Proper breathing techniques are essential for the safe and appropriate performance of the strength training exercises. Subjects should be instructed to avoid holding their breath and/or performing the “Valsalva maneuver” during training. Subjects are instructed to breathe through their mouths continuously and regularly throughout the exercises. This can be done in one of two ways. First, participants may count out loud to keep the pace of the exercises. Talking (counting) ensures that participants are not holding their breath. The second method entails inhaling before the lift, exhaling through the mouth while lifting, often referred to as “exhale during the exertion,” and inhaling through the nose during the lowering phase.

It is important for participants to start out at an easy or moderate level for all of these exercises. When the weight is light, the participant can safely learn the unique moves of each physical activity and learn how to breathe properly. After mastering proper physical activity technique, then the participants can start to progress and meet the appropriate intensity for an effective workout.

### **3 The physical activity protocol**

#### **PHYSICAL ACTIVITY1: Wide Leg Squat**

*Starting position:*

The subject stands with their feet slightly greater than shoulder-width apart about 6-8 inches in front of a chair with their arms crossed in front of their chest with shoulders relaxed.

*The move:*

1. Leaning slightly forward at the hip, the subject aims their buttocks into the chair and slowly lowers themselves back to a seated position. During this exercise, keep their chest up (lifted) and their back, neck, and head in a straight line.
2. Pause for a breath in the seated position.
3. Leaning slightly forward, they should stand up slowly, making sure to keep their knees directly above your ankles. As they do this, they should push up from their heels through their lower legs, thighs, hips, and buttocks, which will help keep their knees from moving in front of their feet.

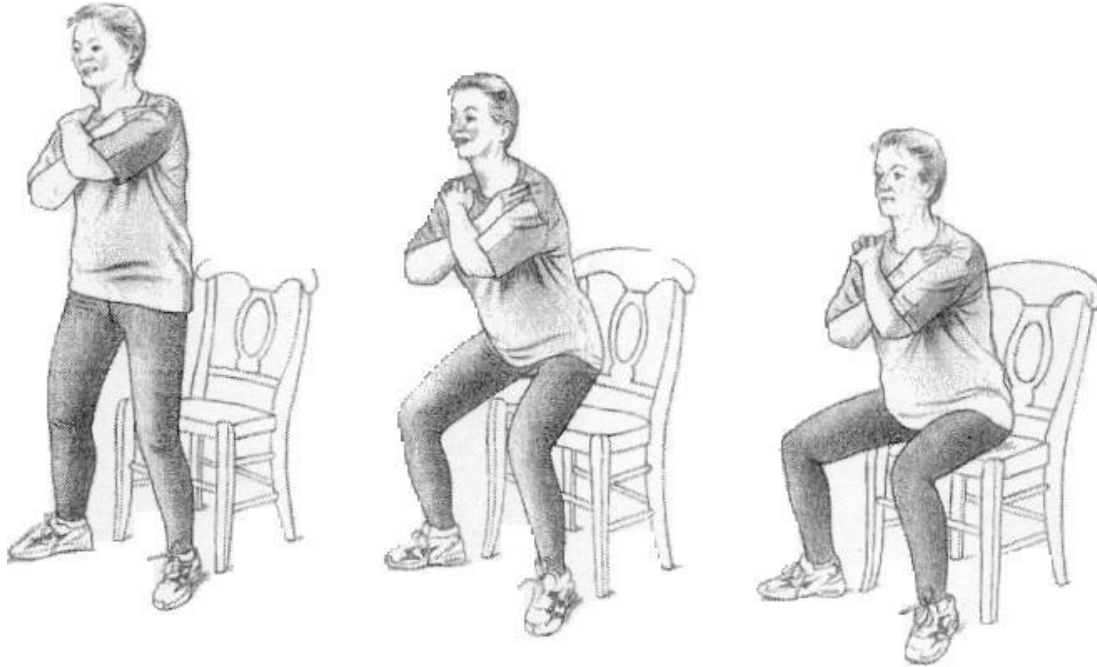
#### **PHYSICAL ACTIVITY 1: Wide Leg Squat**

*Notes for the study interventionist:*

Subjects should be sure to keep their chests lifted throughout the move, so that the body doesn't curl forward. Eyes should be looking straight ahead rather than down at the floor. If participants are experiencing any pain in their knees, interventionists should guide their technique to make sure they are not letting their knees move forward past their toes during the move and that the lower leg stays perpendicular to the floor.

Make sure subjects:

- ❖ Lean just slightly forward when beginning the move
- ❖ Don't allow their knees to come in front of their toes
- ❖ Tighten their abdominal muscles
- ❖ Don't hold their breath



## **PHYSICAL ACTIVITY 2: Standing Leg Curl (with ankle weights)**

### *Starting position:*

Subject stands with their feet slightly apart behind a chair with their hands gently resting along the top of the chair back for balance. They are then instructed to shift their body weight to their left leg.

### *The move:*

1. Keeping their thighs side-by-side, slowly lift their right foot up towards their buttocks until their upper and lower leg form a ninety-degree angle.
2. Pause for a breath.
3. Slowly lower their right foot back to the ground, shift their weight to the right leg, and repeat the move with the left leg.

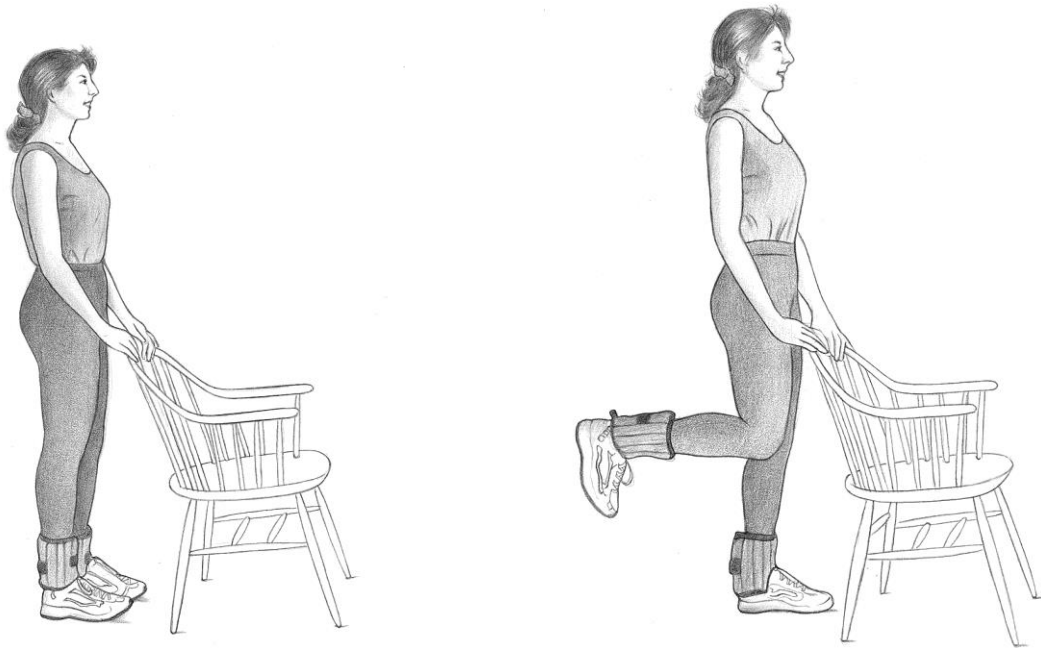
## **PHYSICAL ACTIVITY 2: Standing Leg Curl (with ankle weights)**

### *Notes for the study interventionist:*

Make sure the subjects:

- ❖ Keep thighs and hips even and knees touching

- ❖ Don't arch their backs as they do the exercise
- ❖ Don't let the knee or thigh move forward as the lower leg curls up
- ❖ Don't hold their breath



### **PHYSICAL ACTIVITY 3: Knee Extension (with ankle weights)**

#### *Starting position:*

Subject is to sit back in a chair with their feet shoulder-width apart and knees slightly separated and directly above their feet. A rolled towel can be placed beneath the knees for comfort and to allow full range of motion during the exercise, as the toes should just brush against the floor when extending the leg.

#### *The move:*

1. Keeping their foot flexed, slowly raise their left leg until it is fully extended, with the knee as straight as possible.
2. Pause for a breath.
3. They are then instructed to slowly lower their left leg back to the ground.

### **PHYSICAL ACTIVITY 3: Knee Extension (with ankle weights)**

*Notes for the study interventionist:*

Make sure participants:

- ❖ Don't arch their backs
- ❖ Straighten their legs as far as possible at the end of the lift – the last part of the muscle contraction is the most important
- ❖ Don't hold their breath



#### **PHYSICAL ACTIVITY 4: Side Hip Raise (with ankle weights)**

##### *Starting position:*

Stand straight with feet together and hands gently resting on the back of a chair for balance.

##### *The move:*

1. Keeping their toes pointed straight ahead; slowly lift their right leg out to the side until their foot is 5-8 inches off the ground. Do not lock the knee on the supporting leg.
2. Pause for a breath.
3. In a comparison led motion, lower the right leg back to the ground.

##### *Reps and sets:*

Complete 10 repetitions on both the right and left legs for the set, rest for about a minute, and then repeat for a second set of 10.

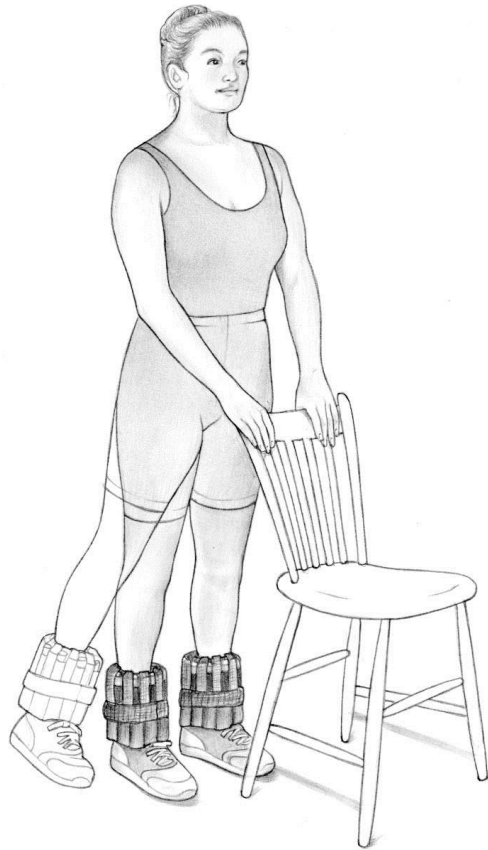
#### **PHYSICAL ACTIVITY 4: Side Hip Raise (with ankle weights)**

##### *Notes for the program leader:*

Make sure participants:

- ❖ Keep their torsos upright during this exercise, not leaning to one side
- ❖ Raise their legs no more than 12 inches off the ground
- ❖ Keep their fingertips on top of the chair for balance
- ❖ Don't hold their breath





### **PHYSICAL ACTIVITY 5: Toe Stand**

The toe stand is an excellent physical activity that improves balance and ankle flexibility while also strengthening the gastrocnemius and soleus muscles in the back of the lower legs. As participants get stronger, they can progress from Level 1 to Level 2 of the move.

**Level 1:** Toe stand on both feet with hand support

**Level 2:** Same as Level 1 but without hand support

*Start with Level 1.*

If their calf muscles are weak or inflexible, you may not be able to raise their heels. They can improve the strength of these muscles until they can lift their heels fully. Then proceed to Level 2 – the same physical activity but without help from your hands.

*Starting position:*

Stand 12 inches away from a wall (or back of a chair), with feet about 12 inches apart.

**Level 1:** Rest fingertips lightly on a wall (or back of a chair) to help maintain their balance.

**Level 2:** Same as Level 1 but without their fingertips actually touching the wall (or chair). For safety's sake, always perform this physical activity with a wall (or chair) in front of you.

*The move:*

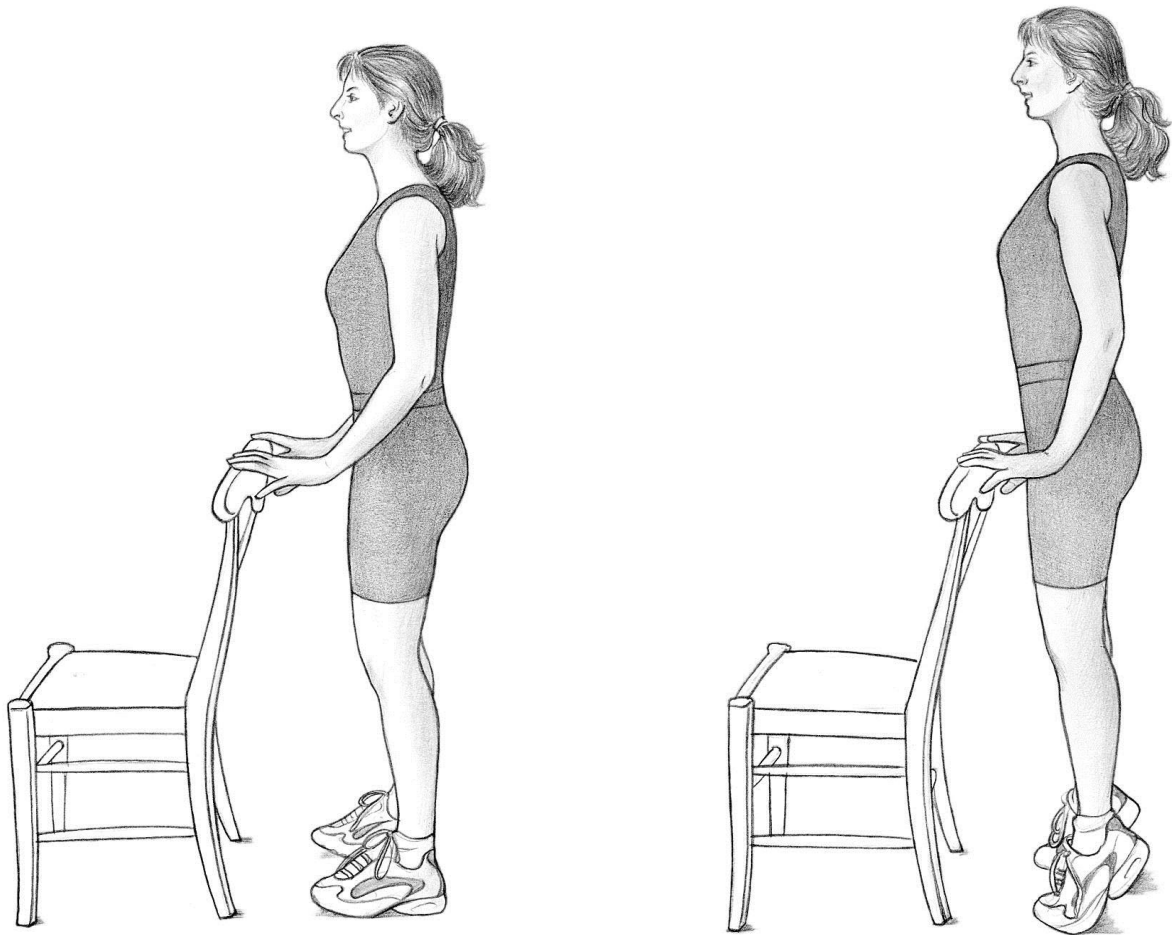
1. Slowly raise them self as high as possible on the balls of their feet.
2. Hold the position for a slow count of three.
3. Slowly lower their heels back to the ground.

*Notes for the study interventionist:*

Make sure participants:

- ❖ Maintain good upright posture
- ❖ Do the toe stands slowly—many people have a tendency to raise and lower themselves too quickly
- ❖ Don't hold their breath

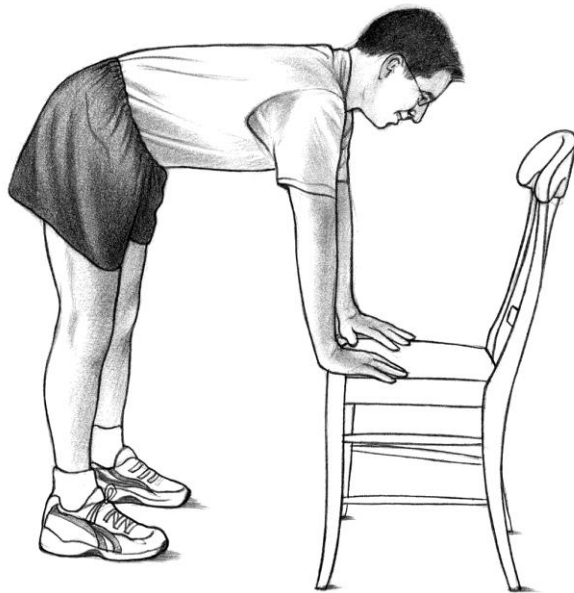
## PHYSICAL ACTIVITY 5: Toe Stand



## **Cool-down**

### **Hamstring & Calf Stretch**

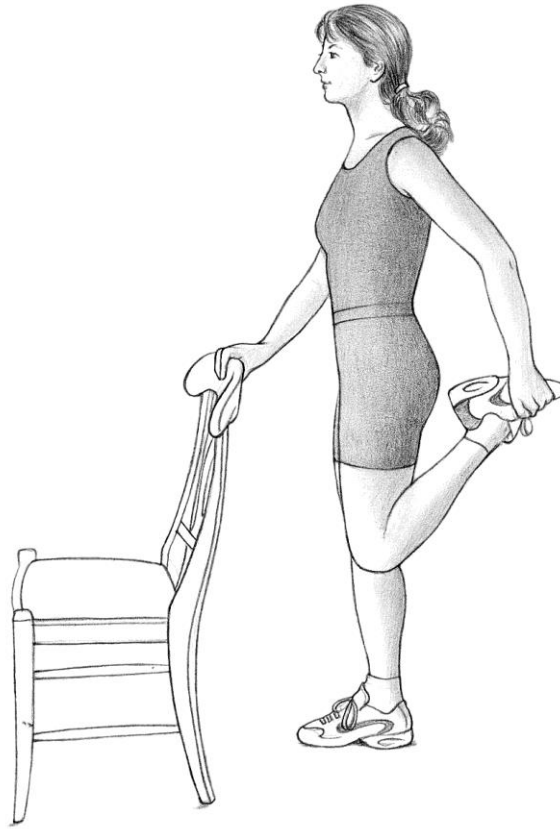
1. Stand facing a sturdy chair.
2. Slowly bend forward at the hip, keeping their legs straight without locking their knees. Rest your hands on the seat of the chair with their elbows slightly bent, feeling a stretch in the back of their upper and lower leg. Keep you back flat.
3. Hold the stretch for a count of 20-30 seconds.



### **Quadriceps Stretch**

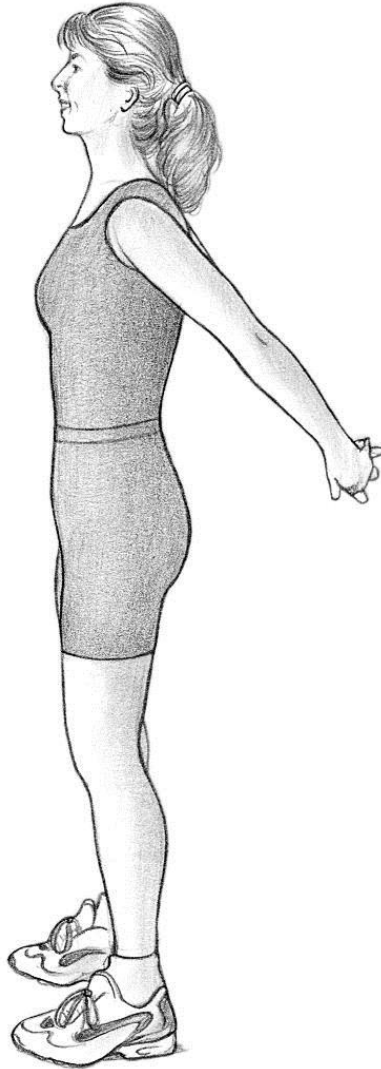
1. Stand next to a sturdy chair with their feet about shoulder-width apart and their knees straight – but not locked.
2. Hold onto the chair for balance with their left hand. Bend their right leg back and grab their right foot or ankle in their right hand until their thigh is perpendicular to the ground. Make sure they stand up straight – don't lean forward. (If they can't grab their ankle in their hand, keep their leg as close to perpendicular as possible and hold the bend.) They should feel a stretch in the front of their thigh.

3. Hold the stretch for a count of 20-30 seconds, and then repeat the stretch with the other leg.



### **Chest & Arm Stretch**

1. Stand with their arms down by your side.
2. Extend both arms behind you and clasp your hands together. Make sure their arms are straight before lifting them up behind you as high as possible. Keep their chest forward and shoulders back during the stretch.
3. Hold the stretch for a count of 20-30 seconds.



## Upper Back Stretch

1. Stand (or sit) with their feet shoulder-width apart, their knees straight but not locked, and their hands clasped in front of themselves. Rotate their hands so that their palms face the ground. Then raise their arms to about chest height.
2. Press their palms away from their body and feel a stretch in your neck, upper back, and along their shoulders.
3. Hold the stretch for a count of 20-30 seconds.



## 10.7 Balance training module

### Overview:

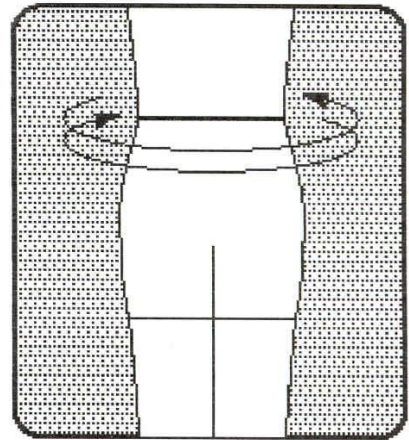
All participants will receive the balance training begin at Level I. Participants will perform all exercises their current level. Each participant will progress to the next level of balance exercises when all exercises at that level can be performed correctly and without significant effort by the participant. Correctness of performance indicates that the exercises demonstrated to the physical activity instructor by the participant are performed as written in the physical activity program, eight out of ten times or 3 out of five times. Significant effort means the exercises are performed with a strained facial grimace, holding one's breath, or performance of exercises in a jerky, hesitating manner. The balance exercises are performed once a day every day.

## LEVEL I BALANCE EXERCISES

Once a day do the exercises marked by your therapist.

### The Sink Hip Circle I

1. Stand facing kitchen sink
2. Hold on with both hands
3. Do not move shoulders or feet
4. Make a big circle to left with hips
5. Repeat 5 times
6. Make a big circle to right with hips
7. Repeat 5 times

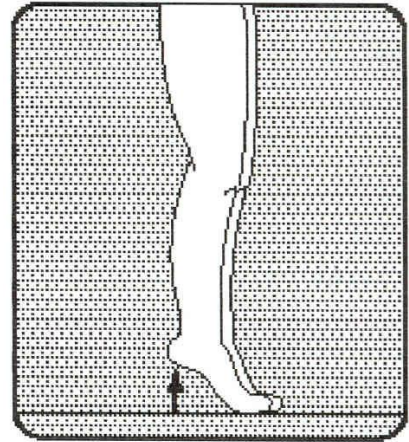


(A)



## The Sink Toe Stand I

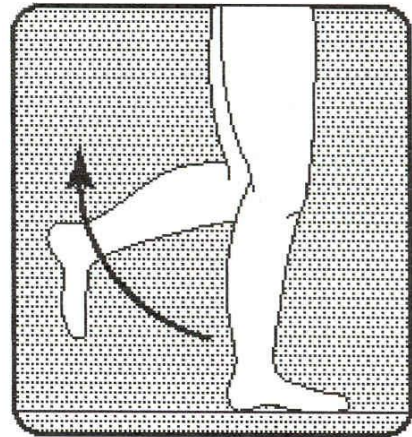
1. Stand facing kitchen sink
2. Hold on with both hands
3. Go up on your toes
4. Hold for count of 5
5. Then come down
6. Repeat 10 times



(B)

## One Leg Sink Stand I

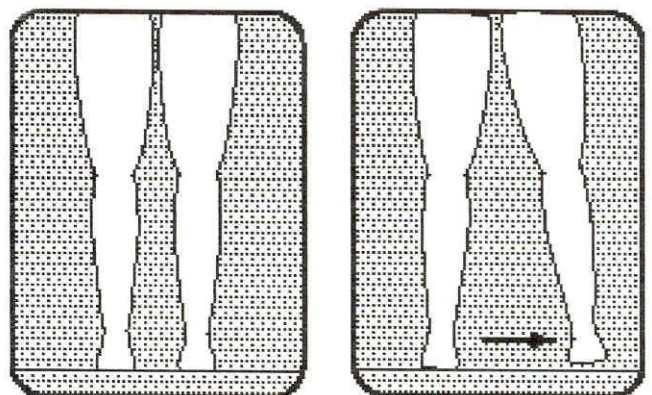
1. Stand facing kitchen sink
2. Hold on with both hands
3. Stand on your left leg for count of 5
4. Stand on your right leg for count of 5
5. Repeat 10 times



(C)

## Sink Side Step I

1. Stand facing kitchen sink
2. Hold on with both hands
3. Move hands along kitchen sink as you step to left 5 steps
4. Step with both feet to right 5 steps
5. Repeat 5 times



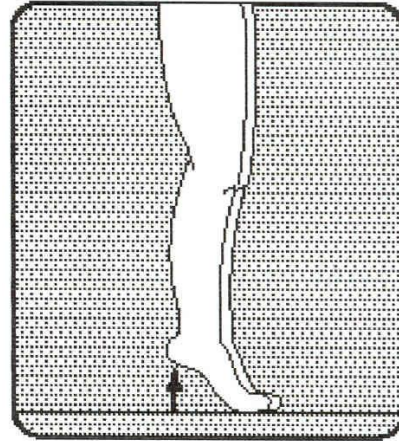
(D)

## LEVEL II BALANCE EXERCISES

Once a day do the exercises marked by your therapist.

### The Sink Toe Stand II

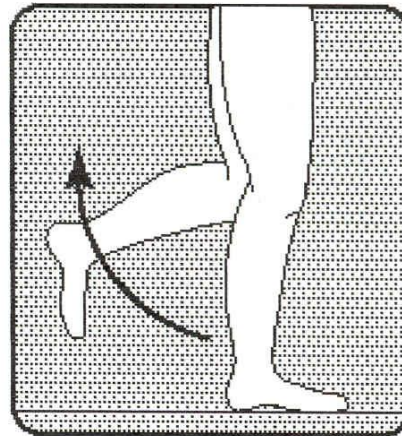
1. Stand facing kitchen sink
2. Hold on with one hand
3. Go up on your toes
4. Hold for count of 5
5. Then come down
6. Repeat 10 times



(A)

### One Leg Sink Stand II

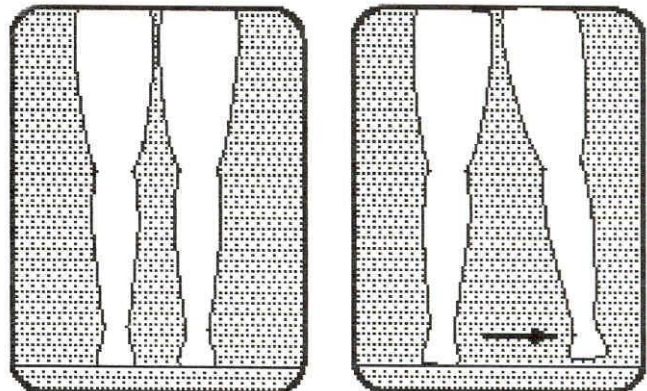
1. Stand facing kitchen sink
2. Hold on with both hands
3. Stand on your left leg for count of 5
4. Stand on your right leg for count of 5
5. Repeat 10 times



(B)

### Sink Side Step II

1. Stand facing kitchen sink
2. Hold on with one hand
3. Move hand along kitchen sink as you step to left 5 steps
4. Step to right 5 steps
5. Repeat 5 times



(C)

## **Step forward II**

1. Stand with right side toward kitchen sink.
2. Hold onto the sink with your right hand.
3. Step forward with your left leg; shift your weight forward over the left leg.
4. Do not step forward with the right leg.
5. Return the left leg to the starting position.
6. Repeat on opposite side.
7. Continue to alternate each leg.
8. Repeat 10 times.

## ***Step backward II***

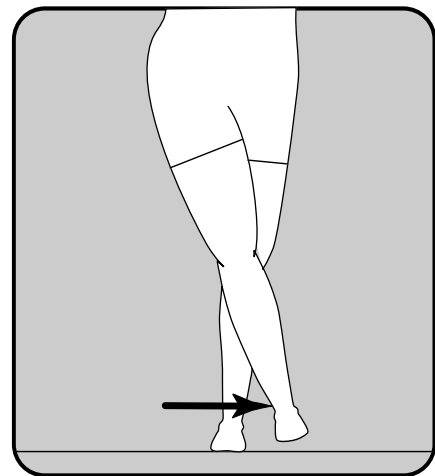
1. Stand with right side toward kitchen sink.
2. Hold onto the sink with your right hand.
3. Step backward with your left leg; shift your weight backward over the left leg.
4. Do not step backward with the right leg.
5. Return the left leg to the starting position.
6. Repeat on opposite leg.
7. Continue to alternate each leg.
8. Repeat 10 times.

## LEVEL III BALANCE EXERCISES

Once a day do the exercises marked by your therapist.

### Sink Leg Cross III

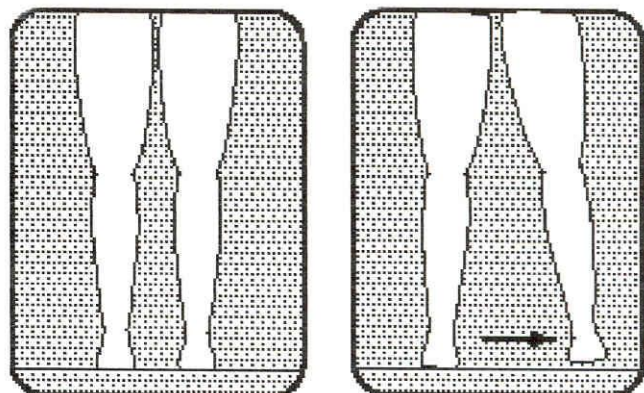
1. Stand facing kitchen sink
2. Hold on with both hands
3. Move hands along kitchen sink as you step
4. Cross foot in front of right foot
5. Take a side step with your right foot passing it out from behind your left foot
6. Repeat steps 4 & 5 three times
7. Now, cross right foot in front of left foot (reverse directions)
8. Take a side step with your left foot passing it out from behind your right foot
9. Repeat steps 7 & 8 three times



(A)

### Sink Side Step III

1. Stand facing kitchen sink
2. Do not hold onto sink
3. Step to left 5 steps
4. Step to right 5 steps
5. Repeat 5 times

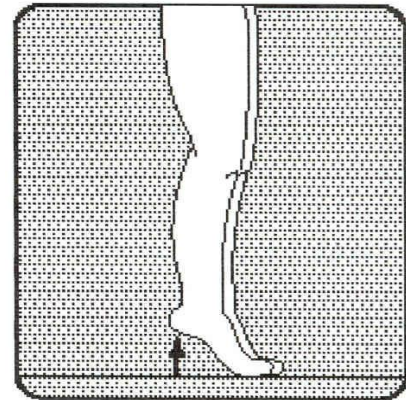


(B)



### **The Sink Toe Stand III**

1. Stand facing kitchen sink
2. Do not hold onto the sink
3. Go up on your toes
4. Hold for count of 5
5. Then come down
6. Repeat 10 times



(E)

### **Step forward III**

9. Stand with right side toward kitchen sink.
10. Balance with fingertips of the right hand.
11. Step forward with your left leg; shift your weight forward over the left leg.
12. Do not step forward with the right leg.
13. Return the left leg to the starting position.
14. Repeat on opposite side.
15. Continue to alternate each leg.
16. Repeat 10 times.

### ***Step backward III***

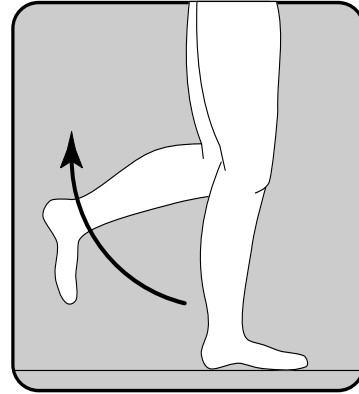
1. Stand with right side toward kitchen sink.
2. Balance with fingertips of the right hand.
3. Step backward with your left leg; shift your weight backward over the left leg.
4. Do not step backward with the right leg.
5. Return the left leg to the starting position.
6. Repeat on opposite leg.
7. Continue to alternate each leg.
8. Repeat 10 times.

## LEVEL IV BALANCE EXERCISES

Once a day do the exercises marked by your therapist.

### One Leg Sink Stand IV

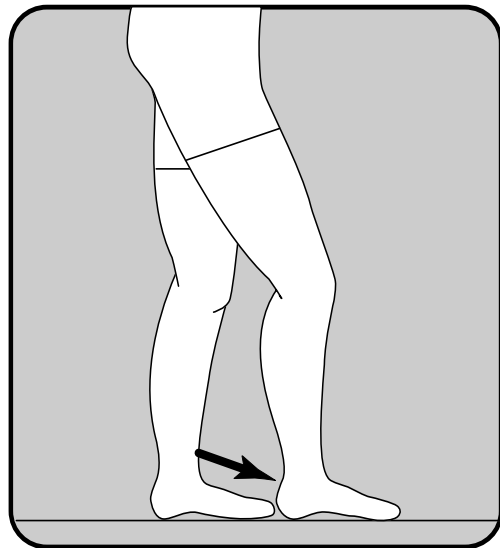
1. Stand facing kitchen sink
2. Do not hold onto the kitchen sink
3. Stand on your left leg for count of 5
4. Stand on your right leg for count of 5
5. Do each leg 10 times



(A)

### Tandem Walking IV

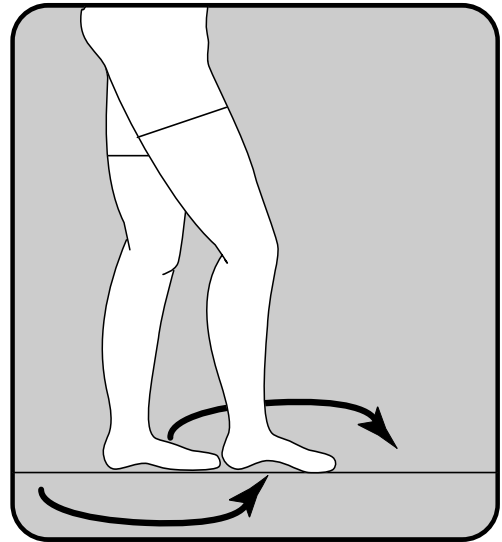
1. Stand with left side toward kitchen sink
2. Hold on with left hand
3. Move hand along kitchen sink as you step
4. Place right heel directly in front of toes of right foot
5. Now place left heel directly in front of toes of right foot
6. Repeat steps 4 and 5 three times
7. Turn around
8. Hold with right hand
9. Repeat steps 4 and 5 three times



(B)

## Cross-over Walk IV

1. Stand with left side toward kitchen sink
2. Hold on with left hand
3. Move hand along kitchen sink as you step forward
4. Cross left foot over right foot
5. Cross right foot left foot
6. Repeat steps 4 and 5 three times
7. Turn around
8. Hold with right hand
9. Repeat steps 4 and 5 three times



(C)

## Step Backward and Forward IV

1. Stand with right side toward kitchen sink.
2. Hold onto the sink with your right hand.
3. Step backward with your left leg, shift your weight backward over the left leg, pause.
4. Step forward with the left leg, past the right leg.
5. Shift your weight forward over the left leg.
6. Return the left leg to the starting position.
7. Repeat on opposite leg.
8. Continue to alternate each leg.
9. Repeat 10 times.

## **Modified Step-up IV**

1. Stand with your right side toward the sink.
2. Hold on to the sink with your right hand.
3. Have a step stool or large book (phone book) on the floor in front of you.
4. Lift the right foot up and tap it on the stool/book.
5. Lower the right foot back to the floor.
6. Repeat with the left foot.
7. Alternate right and left steps.
8. Repeat 10 times.



## LEVEL V BALANCE EXERCISES

Once a day do the exercises marked by your therapist.

### Walk with Head Turns V

1. Stand with right side toward sink.
2. Hold on with the right hand.
3. Move hand along sink as you step.
4. Take 5 steps forward.
5. While stepping forward turn your head to the right and then to the left one time.
6. Turn around.
7. Hold with the left hand.
8. Repeat steps 4 and 5.
9. Repeat entire sequence 5 times.

### Forward Lunge V

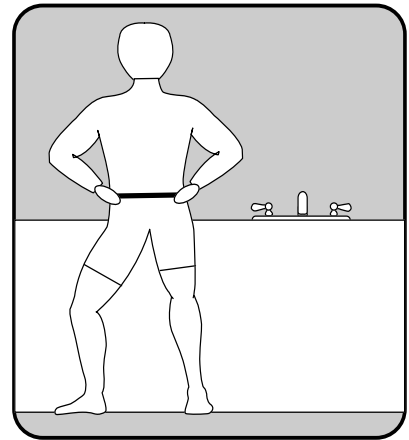
1. Stand with side to kitchen sink
2. Hands on hip
3. Lunge forward with right foot
4. Return to start position
5. Lunge forward with left foot
6. Return to start position
7. Repeat 10 times



(B)

## Side Lunge, Hands on Hips V

1. Stand near kitchen sink
2. Hands on hip
3. Lunge to side on left foot
4. Return to upright position
5. Lunge to side on right
6. Return to upright position
7. Repeat 10 times
8. Repeat 10 times



(F)

## Step Backward and Forward V

1. Stand with right side toward kitchen sink.
2. Balance with fingertips of your right hand.
3. Step backward with your left leg, shift your weight backward over the left leg, pause.
4. Step forward with the left leg, past the right leg.
5. Shift your weight forward over the left leg.
6. Return the left leg to the starting position.
7. Repeat on opposite leg.
8. Continue to alternate each leg.
9. Repeat 10 times.

### ***Modified Step-up V***

1. Stand with your right side toward the sink.
2. Balance with fingertips of your right hand.
3. Have a step stool or large book (phone book) on the floor in front of you.
4. Lift the right foot up and tap it on the stool/book.
5. Lower the right foot back to the floor.
6. Repeat with the left foot.
7. Alternate right and left steps.
8. Repeat 10 times.

## 10.9 Protocol for handling illnesses/injury and other health problems

**Health event and symptom assessment by the intervention staff.** In addition to participant feedback to the intervention team, quarterly assessments are made by the evaluation staff (masked to intervention group) in both the intervention and comparison groups to assess hospitalization, injury, new cardiopulmonary symptoms, pain, and other adverse events. If serious events are reported in the context of these telephone assessments (particularly that are absolute contraindications to physical activity participation), this information is communicated to the field center study interventionists. Health problems reported to *intervention staff* should be reported as described in Chapter 22. At no time should such events be discussed with the assessment staff. A phone call is made by the interventionist to the participant to determine whether physical activity was suspended, should be suspended, or may be resolved. **If physical activity's reported to have been suspended due to a hospitalization, injury or other health reason, the participant is asked to come to the center for re-evaluation to determine the level of physical activity for restarting, once it is determined that the health event has resolved. If the health event remains unresolved, monthly calls are made to reassess whether criteria for restarting are met, as described below.** The interventionist should not discuss health events with the assessment staff.

### Suspended Status

A participant is classified as “suspended” during the adoption or transition phase if any one of the following criteria are indicated:

1. Participant misses  $\geq 3$  consecutive missed visits due to self-reported hospitalization, injury or other health reason (vacations excluded) or reports to study staff that he/she voluntarily and temporarily ( $\geq 3$  consecutive missed visits) withdraws from the physical activity treatment due to self-reported hospitalization, injury or other health reason.
2. Withdrawal from physical activity as per primary care physician orders.

If participant is classified as suspended, the interventionist must indicate participant status on the “Missed Physical Activity Session” form and complete the Suspended Status form. Regaining “active” status and restarting the physical activity program requires physician approval and is described below. It is important for the interventionists to not refer to participants as “suspended” as this may have negative connotations to the participant. Rather the participant should be told that their physical activity program has been put “**on hold**” until their medical condition has resolved and it is again safer for them to participate. Remind the participants that while they are “**on hold**”, they still should attend the scheduled clinic assessment visits and that they should **not disclose** to the assessors that they are “on hold” from physical activity.

**\*\*Remember to tell the participant that: 1) being "on hold" is not permanent and that they will get back to being active which will involve communication between yourself, your doctor, and the study staff; 2) it is being done to ensure their safety; 3) they can and should attend their clinic-based assessment visits (remind about maintaining the study blind)**

A participant is classified as “suspended” during the **maintenance phase** if any one of the following criteria are indicated:

1. Participant misses  $\geq 2$  wks. of home-based physical activity due to self-reported hospitalization, injury or other health reason (vacations excluded) or reports to study staff that he/she voluntarily and temporarily ( $\geq 2$  wks.) withdraws from the physical activity treatment due to self-reported hospitalization, injury or other health reason.
2. Withdrawal from physical activity as per primary care physician orders.

Generally suspended status for participants in maintenance will be determined during the monthly intervention contacts but also may be reported by direct contact with a study participant by the interventionist. If participant is classified as suspended, the interventionist must complete the Suspended Status form. Regaining “active” status and restarting the physical activity program requires physician approval and is described below.

**Restarting a suspended physical activity program.** Evaluation for restarting physical activity depend on the functional impact of the illness and any activity limitation prescriptions that may have been provided by the participant’s health care team, including the primary care physician, surgeon, consultants, or therapists (See table X for minimum criteria)\*. The restart of physical activity will be a collaborative process with the participant.

- a. If, after the illness episode, the participant is able to leave the home and walk independently a minimum of 4 meters outside the home with no more assistance than a straight cane, and if there is no prescribed activity or weight bearing-limitation or therapy, reevaluation is done at the Field Center, and a new physical activity prescription begins. The same protocol as was used for the baseline program prescription and progression are used.
- b. Regardless of ability to leave the home, if after an acute illness and suspension of exercise, the participant is under prescribed activity or weight bearing limitation or rehabilitative treatment, re-evaluation is made at the end of the activity limitation prescription or treatment course.
- c. If the physical activity’s specifically limited, due to chest pain or dyspnea, physical activity’s suspended and will not be restarted without definitive treatment by the participant’s health care provider. In some of these cases, the primary care physician may refer the participant to a medically supervised rehabilitation program. When this occurs, the intervention staff will attempt to obtain information on what the participant is doing in the rehabilitation program so that this information can be added to study records.

- d. If the participant remains unable to leave the home under the conditions prescribed above, and is nearing the end of a six-month assessment window, a home examination is done at the required interval to assess for study endpoints. A similar protocol is used for the comparison group.
- e. If upon reassessment for the restart of the physical activity program, the participant appears unable to follow the brief commands necessary for participation in the reassessment of physical activity program, the study medical monitor should be contacted for possible evaluation of cognitive status.

**Table X.**

<b><i>Criteria for restart of Physical activity:</i></b>
<b>Participant is able to leave home and walk independently a minimum of 4 meters (no more than straight cane).</b>
<b>Participant is not under prescribed activity, weight bearing limitations or physical rehabilitation.</b>
<b>If physical activity is limited due to chest pain or dyspnea, restart will not occur without definitive treatment from the participant's primary care provider*.</b>

\*In cases where the primary care physician cannot be contacted or is not responsive to requests for further information, the interventionist can confer with the site medical safety officer to discuss the participant's status. If, in the view of the medical safety officer, the participant can safely re-enter the physical activity intervention, the participant can be re-entered into the physical activity intervention.

**Individualizing restart of physical activity after illness or injury episode.** An individualized approach to the restart of physical activity following suspended status will be conducted at all sites. Suggested guidelines for the restart of physical activity during different phases of the study are provided in the sections below. However, there may be appropriate individual variations in the resumption of physical activity during this period due to the length of the suspension and the severity of the participant's illness or injury. For this reason all individual plans for the resumption of physical activity for a participant who has been placed on "suspended" status will be reviewed and approved by the **Lifestyle Resources Core**. The plan for the restart of exercise will follow the general guidelines listed below depending on what phase of the physical activity intervention the participant has completed.

**Suspension during the adoption phase:** Because successful completion of the adoption phase is necessary for both the conduct of the trial (maximize participation) and participant safety, participants who are placed on suspended status during the adoption phase will generally participate in the same number of contact visits (3 times per week; i.e. for a total of 24 sessions) as originally

planned before moving into the transition phase. If a participant misses more than half of the group-based behavioral sessions, they would be assigned to the next new group. If all of the behavioral groups have been closed, individual behavioral counseling will be considered for some participants.

### **Examples of suspension during the adoption phase:**

**Example 1:** Participant X is randomized and scheduled for first face to face contact with the intervention staff. In the intervening week between randomization and face to face meeting, the participant is hospitalized and undergoes an angioplasty procedure for cardiac ischemia. As per the protocol, he is placed on suspended status. He is finally cleared to exercise by his cardiologist three months later. The restart plan that would be reviewed and approved by the LRC would include his enrollment in a new adoption phase group (probably the next one that starts) and some specific details about monitoring the status of his ischemia during exercise. This participant would complete the adoption phase and transition phase, and likely due to the three month delay complete an “abbreviated” maintenance phase of the trial. This participant’s schedule of assessment visits should **not** be altered by this change in intervention delivery.

**Example 2:** Participant Y is diagnosed with pneumonia following completion of the first 4 weeks of the adoption phase. She is placed on suspended status, recovers, and is cleared to exercise after 4 weeks. The restart plan approved by the LRC would be to continue the Adoption phase for an additional 4 weeks. Participation in an ongoing behavioral group or individualized behavioral counseling would be considered on a case by case basis. This participant would complete the adoption phase and transition phase, and likely due to the three month delay complete an “abbreviated” maintenance phase of the trial. This participant’s schedule of assessment visits should **not** be altered by this change in intervention delivery.

**Suspension during the transition phase:** Restart of participants placed on suspended status during the transition phase should be guided by the same principles applied during the adoption phase (goal of completing 32 supervised physical activity sessions) with the goal being that participants are able to successfully proceed to the maintenance phase of the trial. Plans for the resumption of physical activity will be developed on a case by case basis and be reviewed and approved by the **LRC**. Changes in the intervention delivery or timing of the intervention phases will **not** alter the assessment schedule.

**Suspension during the maintenance phase:** If a participant is placed on suspended status during the maintenance phase (month 6 to the end of the study) of the physical activity intervention, restart of the intervention will take

place during a minimum of three supervised “clinic-based” physical activity sessions. This will occur after medical clearance for restart has been obtained and the plan is reviewed and approved by the **LRC**. If a participant is identified during a telephone contact as being “suspended”, a suspended status form will be completed. This will activate the LRC for a review of the proposed restart plan.

**Individualizing goals when physical activity’s reduced because of illness or injury.** If there is an illness episode that does not meet the above criteria for suspension of the physical activity program, reduction in physical activity may still occur, and is detected by either the tracking system, observation by staff, or self-report at a center visit. Physical activity goals are re-adjusted on an individual basis. Re-assessment or need for special attention and individualization are performed at the field center. All injuries are reported to the Medical Safety Committee. Rehabilitation staff and primary care physicians may also be consulted as needed.

**Individualizing goals when physical activity’s reduced because of poor compliance during the maintenance phase.** If upon the judgment of the intervention staff, a participants appears to be having difficulty performing their home-based physical activity program, they will be given the option of returning to the center-based physical activity program 2 days per week. This will assist the intervention staff and participants in maintaining compliance to the intervention.

## **10.10 The behavioral component of the intervention**

### **I. Overview**

The document that follows provides critical skills and content that forms the core of the LIFE physical activity intervention. Before participants begin the intervention, they will have an individual contact with an interventionist. The goal of this session is to inform each participant about “what he/she can expect over the next year”, to gather information on individual needs, and to reassure each participant that the program is progressive and flexible (see section III of this document for details of this session).

Participants are in physical activity within a week after this initial individual contact. During the first 3 weeks of exercise, participants are exposed to 3 informational lectures/contacts. Although the first session must occur prior to activity on the first day of exercise, the other two are independent of one another (i.e., they do not have to be delivered in any order). The content of these informational lectures/contacts is as follows:

- \* Getting started (occurs before prior to physical activity and can be delivered to 1 or more individuals)



- \* The Frequency, Intensity, Time and Type Principle (FITT)
- \* Planning physical activity at home

Once a site accumulates 12-15 participants, they are assigned to a closed group that will meet for 10 consecutive weeks after structured physical activity sessions. Note that some participants may not have completed the 3 informational lectures/contacts prior to beginning closed group sessions. In the sections that follow, we describe the following components of the LIFE physical activity intervention:

- \* Nature and Schedule of Contacts
- \* Basic Counseling Skills
- \* The First Individual Face-to-Face Contact
- \* Protocol for Phone Counseling (SCT)
- \* Outline and Content of Group Sessions
- \* Outline for Physical activity Lectures

## **II. Nature and Schedule of Contacts**

As described previously, each participant will have an individual meeting with an interventionist prior to beginning formal physical activity therapy. Following this session, participants are required to attend center-based physical activity 3 times/week for the first two months, 2 times/week during months 3 thru 6, and 1 time/week thereafter. Additional supervised physical activity sessions can be offered to participants on an “as needed basis” provided that space is available. Once participants are placed into a closed group, these groups will meet for 10 consecutive weeks following supervised physical activity sessions. In addition, all participants will receive monthly phone contacts during the entire duration of the intervention. The protocol for these phone contacts can be found in section V. Additionally, after the 10 group sessions have been completed, it is possible to schedule additional group and/or individual contacts on an “as needed basis” to address special needs (e.g., poor compliance, personal setbacks).

## **III. Basic Counseling Skills**

In this section, we describe some basic counseling competencies. These have been divided into 9 discrete skills:

- |         |   |
|---------|---|
| SKILL 1 | Active Listening (“Attending”) and Empathic Communication |
| SKILL 2 | Asking Open-Ended Questions                               |
| SKILL 3 | Paraphrasing  |
| SKILL 4 | Giving and Receiving Feedback                             |
| SKILL 5 | Handling Emotions   |
| SKILL 6 | Summarizing   |
| SKILL 7 | Problem-Solving   |
| SKILL 8 | Group Leadership Skills                                   |
| SKILL 9 | Dealing with the Difficult/Challenging Participant        |

## ➤ Skill 1: Active Listening – “Attending” and Empathic Communication

Active listening (also called attending) is listening in such a way that lets a person know they have your full attention. Nonverbal attending skills include good eye contact, relaxed, non-defensive body posture, and an open, appropriate facial expression. Verbal attending skills include vocalizations or brief statements such as, “Mm hmm,” “yes,” or “I see” that let your participant know you are actively listening to him/her. When you use the telephone to deliver counseling, your participant can’t see your warm expression and encouraging body language, but there are still things you can do to convey active listening.

1. Set aside a time to talk when you are least likely to be interrupted.
2. Turn away from the computer and turn down the radio so there are no competing noises. You don’t want your participant to think you are doing other things while he/she’s talking to you!
3. Listen more than you talk in every conversation.
4. Make encouraging sounds (“Mm hmm”) so your participant knows you are paying attention.
5. Don’t interrupt or change the subject (unless your participant has wandered and the conversation needs to be turned back to exercise).
6. Don’t spend too much time talking about your experiences. Your job is to listen fully to your participant’s experiences and to give personal advice sparingly. Your experiences are important and may be invaluable to your participant... just be sure your sharing doesn’t take up too much time. A good general rule: the participant should talk for about 3/4 of the call.

### **ADVICE for Attending:**

- Keep good boundaries. If you only have 15 minutes to talk, stick to your time frame. You are not being rude by interrupting your participant if he or she is off track or too chatty. You can say something like, “I’m going to stop you there. I know your time is precious and I want to be sure we get a chance to discuss your physical activity goals for the next month.”
- Think of the people to whom you most enjoy talking. Chances are they’re pretty good at listening. Free advice is cheap, but careful listening is precious.

### **More on Empathic Communication**

Empathic communication is one of the primary vehicles for establishing a relationship with the participant. An individual’s perception of genuine effort and commitment to understanding and experience of being “empathically received” creates a low-threat environment that relaxes self-defenses and resistance and facilitates self-exploration, a pre-requisite for self-understanding and subsequent behavior change.

Empathic communication is the most fundamental and vital counseling skill. It is the ability to convey accurate empathy to the client and involves 2 parts: understanding and reflection. Empathic understanding, or recognition, involves accurately perceiving the private, inner feelings and experiences of the participant as the participant experiences them. It involves a willingness to “walk in another person’s shoes” and seeking to grasp the meaning of his/her experience. It requires the ability to go beyond factual knowledge and to achieve a moment-to-moment awareness of the affective, perceptual, and cognitive worlds of the participant. Understanding alone is not enough; the counselor must also be able to convey that understanding back to the participant.

### **Guidelines for empathic communication**

1. Receptively attend to the participant by maintaining eye contact and a responsive posture, by remaining fully present and in contact psychologically, and by making furthering responses.
2. Make your baseline counseling intervention the reciprocal empathic reflection, acknowledging the explicitly expressed feelings of the participant and the reasons or experiences behind them.
3. Avoid professional jargon and stereotyped introductory phrases, and respond in language attuned to the participant.
4. Respond frequently and do not be afraid to interrupt if necessary to check out the accuracy of your understanding.
5. Respond to the impact of events on the participant (internal frame of reference) rather than to external facts only.
6. Be specific and concrete in formulating your responses, encourage the participant to be specific, and ask questions as required to elicit feelings or information needed for understanding.
7. Respond in a voice, tone, and intensity commensurate with the affect expressed by the participant.

From: Hammond, D.C., Hepworth, D.H., & Smith, V.G. (1977). Improving therapeutic communication. San Francisco, CA: Jossey-Bass, Inc.

### **➤ Skill 2: Asking Open Questions**

Open questions encourage a person to talk without feeling defensive. Closed questions are the kind used by doctors (“Does this hurt?”), lawyers (“Can you identify the defendant?”), and parents (“Did you eat your vegetables?”) to get specific information. While closed questions are necessary at times, they don’t allow a person to explore their thoughts.

- A CLOSED question can be answered by “yes,” “no,” or by one word.  
Example: “Did you physical activity Monday?” “Did you walk or bike?”
- A CLOSED question starts with “is,” “do,” “have,” etc.  
Example: “Do you want to physical activity this week?”
- A CLOSED question discourages talking and shuts down conversation.
- An OPEN question can’t be answered by one or two words.  
Example: “What is your biggest challenge around exercise?”
- An OPEN question usually starts with “how” or “what.”  
Example: “What do you do to motivate yourself to exercise?”
- An OPEN question encourages the person to talk.

Open questions are phrased to help people explore and discuss in-depth information. When you allow the participants to speak freely and personally, they are more likely to find their own solutions.

#### USES OF OPEN QUESTIONS:

1. **Beginning a conversation** :“What has your week been like?”
2. **Clarifying and elaborating**: “What do you mean when you say you feel ‘stuck’?” “What’s been going on?”
3. **Working with feelings**. “How did you feel after you exercised?”
4. **Problem solving**. “How can you fit in a little physical activity into the week?”

#### ADVICE on Asking Open-Ended Questions:

- Avoid “why” questions. They make people feel defensive.
- Keep open questions simple and clear.
- Open-ended questions help participants to be real partners in the conversation.

### 1. Skill 3: Paraphrasing

If you have ever seen a political post-debate analysis, you have observed the use of paraphrasing: The newscaster repeats in his or her own words what was said by the main players in the debate. A paraphrase reflects the factual essence of what was said without extraneous details.

#### A GOOD PARAPHRASE:

- conveys the same meaning, but usually uses different words.
- is brief. A paraphrase is shorter than what was originally said.
- is clear and concise. A paraphrase clarifies things, not confuses them.
- is tentative. You want the participant to feel comfortable about disagreeing or correcting your paraphrase if it is inaccurate.

## REASONS FOR USING PARAPHRASE:

1. To check perceptions. A paraphrase verifies that you have accurately heard your participant. When you paraphrase what a participant has said, she can tell you whether you are accurate or inaccurate.  
YOU: "It sounds like you had trouble finding time to exercise."  
PARTICIPANT: "Yes, that's right. I just can't fit it in." <OR> "Well, not really. Time is a factor, but I don't really like it that much."
2. To encourage more in-depth discussion. Often a paraphrase brings up new thoughts and feelings.  
YOU: "So you feel happy after you exercise."  
PARTICIPANT: "Yes, and you know, I feel really proud of myself, too. I never thought I could do this, but now I feel great about myself."
3. To give empathy. An accurate paraphrase let's your participant know you really are listening to her, and that you understand. Empathy is central to counseling. When a person feels understood, they are more likely to open up.

### ADVICE on Paraphrasing:

- Use paraphrase instead of restatement (i.e., repeating word-for-word what was said) to make a person feel heard and understood.
- Use standard opening lines such as, "Let me see if I got that right.." "Sounds like..." "So, in other words..." End by saying, "Is that right?"

## 2. Skill 4: Giving and Receiving Feedback

Giving and receiving feedback require courage, skill, understanding, and respect for yourself and others. Here is a framework for delivering feedback in a positive, productive fashion.

1. **Focus your feedback on the person's behavior, not on the person's personality.** Refer to what the person does, not to what you imagine his or her traits to be.
2. **Be descriptive, not judgmental.** Refer to what occurred, not to your judgments of right or wrong, good or bad. Judgments arise out of a value system. Descriptions represent neutral reporting.
3. **Focus your feedback on a specific situation rather than on abstract behavior.** What a person does is always related to a specific time and place. Feedback that ties behavior to a specific situation increases self-awareness.

4. **Share your perceptions and feelings, not advice.** By sharing perceptions and feelings, you leave other people free to decide how to use the feedback in the light of their own goals in a particular situation at a particular time. When you give advice, you tell other people what to do with the information and thereby take away their freedom to determine for themselves what is for them the most appropriate course of action.
5. **Do not force feedback on people.** Feedback is given to help people become more self-aware. Feedback should serve the needs of the receiver, not the giver. If the person is too upset, defensive, or uninterested to understand it, do not force feedback upon them.
6. **Do not give people more feedback than they can understand at the time.** If you overload people with feedback, it reduces the chances that they will use it.
7. **Focus your feedback on actions that the person can change.**

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*Adapted from Reaching Out—Interpersonal Effectiveness and Self-Actualization, David Johnson, Allyn and Bacon Publishing, 2003*

### **How to Receive Feedback about your Counseling**

As a counselor, not only do you provide feedback, but you will also receive feedback about your performance. It's helpful to think about how you might receive feedback and how you can use it in a constructive discussion.

If your participant says: "I don't think you understand what I'm going through."

- *What would you think? How would you feel? How would you respond?*
- You could get offended, or you could turn these comments into a constructive discussion. "I'm glad you told me. Maybe I can understand this better if we explore this a little longer."

If your supervisor told you: "It might help to give your participants some more time to think before making your next comment."

- *What would you think? How would you feel? How would you respond?*
- You might think, "She thinks I talk too much. She doesn't think I'm a good mentor. Who made her the expert?" Or, you could turn it into a constructive discussion. "Really? I haven't noticed myself doing that. Can you give me some examples so I can understand better?"

Receiving feedback and turning it into a constructive conversation isn't that much different from utilizing the communication and listening skills that we've already covered. For example...

- Try paraphrasing what your participant said without judging the sender's thoughts, reactions, perceptions, needs, and feelings.\*
- Ask questions to make sure you grasp the meaning of the message.\*
- Try to understand the participant's or supervisor's perspective.\*
- Remember that you and your supervisor have the same goals in mind — to improve communication between you and your participant, and to help you feel fulfilled as a physical activity interventionist. Your supervisor is not trying to hurt your feelings. (If you do feel hurt, let your supervisor know!) Fortunately, constructive feedback from supervisors can improve your skills, which in turn helps improve communication between you and your participant, which in turn helps you feel more successful and fulfilled.
- If you feel that your supervisor's feedback is incorrect — by all means, let her know! You certainly don't have to agree with your supervisor, and should feel comfortable correcting misperceptions.

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*\*Adapted from Reaching Out—Interpersonal Effectiveness and Self-Actualization, David Johnson, Allyn and Bacon Publishing, 2003*

### ➤ **Skill 5: Handling Emotions**

You are counseling about **physical activity** and won't have a lot of time to explore deep feelings like you might in other counseling situations. Still, people have feelings about exercise, and helping them explore those feelings can help them work through barriers to behavior change.

1. Identify the feelings.  
⇒ Ask "feeling questions".  
    "How do you feel when you complete a physical activity session?"  
    "How do you feel when you miss a session?"
2. Paraphrase spoken feelings.  
    "So you feel exhilarated when you engage in physical activity, is that right?"  
    "Sounds like you are disappointed when you don't exercise."
3. Acknowledge the feelings.  
    "I can understand that you feel disappointed when you don't engage in physical activity."  
    "It feels so good to be energized!"
4. Relate thoughts to feelings.  
    "I can understand that you feel guilty when you don't exercise. Can you tell me what you feel guilty about?"  
    (Often, participants feel guilty about not exercising because they think they are disappointing you. Let them know physical activity's for their own benefit, not to please anyone else.)

5. When working with negative feelings, provide positive feedback.  
“I know you feel disappointed, but give yourself credit for what you did do. You have a lot on your hands right now. It’s great that you exercised twice this week. Perhaps things are better next week and you can try to fit in one more session then.”

**ADVICE on Emotions:**

- Some participants want to talk about personal problems and feelings beyond the scope of physical activity counseling. Don’t feel bad about steering the conversation back to exercise.



## ➤ **Skill 6: Summarization**

A summary is several paraphrases combined, and often includes a reflection of feeling. A good summary helps a person see what they've done and what they plan to do in the future.

### **A SUMMARY:**

- serves as a perception check (Do I really understand what we said?)
- demonstrates accurate empathy
- clarifies information for you and your participant

A summary is not just a sequential recounting of what has been said. A good summary takes what was said and puts it into a logical form. It mentions thoughts and feelings and ties them together.

### **WHEN SHOULD YOU USE A SUMMARY?**

- A summary is useful after the main questions on the telephone contact, before you go into problem solving.

Example: "It sounds like you've been able to physical activity twice a week for about a half hour. You seem to get a lot of satisfaction from your exercise, but it's not always easy to get out. It sounds like you'd like to try to find ways to get out one or two more times a week. Is that right?"

- A summary is good at the end of the session to help tie things together and to give a clear picture of the session and of progress.

Example: "Well, Sharon, you did a great job this past week. You've added another session to your routine and you're really been enjoying the good weather. Physical activity seems to give you a real boost. In fact, you currently rate your enjoyment level at a 10, and when you started, it was only a 5. Now you plan to work on a new goal to make your sessions a little longer. You're doing great! Keep up the good work!"

### **ADVICE on Summarizing:**

- It really makes a person feel heard when a counselor can accurately reflect back what was said during a conversation. Wouldn't it be nice if our friends and family listened so attentively?!

## ➤ Skill 7: Problem Solving

Inevitably, you will come across situations where your participant is stuck or is having trouble exercising. Your goal is to help the participant find solutions to barriers, hopefully ones that have worked well in the past. Now is the time to brainstorm problem-solving strategies.

### STEPS TO PROBLEM SOLVING:

1. Make sure you have correctly identified the problem. Use paraphrasing.  
“So you’ve had trouble exercising because the weather is bad?”
2. Ask the participant what she has done before to cope with this barrier.  
“What has worked for you in the past when it has been raining?”
3. If the participant does not have a solution that has worked in the past, see if she can come up with one now.  
“What are other activities that you could do when it is raining?”
4. If the participant has trouble generating ideas, offer some to fuel the conversation.  
“When it rains, sometimes people go to the mall to walk.”  
“Some people use stationary machines on rainy days.”  
“I found a great physical activity video that I use on rainy days. It’s easy and it’s fun to do.”

### ADVICE on Problem Solving:

- No doubt, everyone has times when it is difficult to come up with solutions to problems. Give the participant time to grapple with this challenge. Try to not rush to come up with solutions for the participant.
- Silence on the part of the participant doesn’t necessarily mean he/she doesn’t have an answer. Try to be comfortable with the silence; it could mean the participant is thinking hard about their problem-solving dilemma.
- Try to think of similar, parallel situations that might help with problem-solving. Did the participant ever stop smoking, lose weight, cut the fat out of their diet? What strategies worked for them in those situations?
- Do not be overly reliant on personal experience. Facilitating the participant to find a solution is preferred over your providing a solution from your own past experience.

➤ **Skill 8 Group Leadership Skills**

In the table below, we have identified a number of important skills that are part of running effective groups. In addition, during the initiation of any group it is important to be explicit about the adoption of “rules for the group.” This topic is covered as part of the first group session that is covered in section V.

<b>Skills</b>	<b>Description</b>	<b>Aims and Desired Outcomes</b>
<b>Active listening</b>	Attending to verbal and non-verbal communication without judgment.	To encourage trust and client self-disclosure and exploration.
<b>Restating</b>	Saying in slightly different words to clarify meaning	To determine if the leader has understood correctly the client's statement.
<b>Clarifying</b>	Grasping the essence of a message at both the feeling and the thinking levels	To arrive at a meaningful understanding of communication
<b>Summarizing</b>	Pulling together important elements	To avoid fragmentation and give direction to a session; to provide for continuity and meaning.
<b>Questioning</b>	Asking open-ended questions that lead to self-exploration of the “what” and “how” of behavior	To elicit further discussion; to get information; to stimulate thinking; to increase clarity and focus.
<b>Interpreting</b>	Offering possible explanations for certain behavior, feelings, and thoughts.	To encourage deeper self-exploration; to provide a new perspective.
<b>Confronting</b>	Challenging members to look at discrepancies between their words and actions or body and verbal messages; pointing to conflicting information or messages.	To encourage honest self-investigation; to promote full use of potentials; to bring about self-awareness of contradictions.
<b>Reflecting feelings</b>	Communicating understanding of the content of feelings.	To let members know that they are heard and understood beyond the level of words.
<b>Supporting</b>	Providing encouragement and reinforcement.	To create an atmosphere that encourages members to continue desired behaviors; to provide help when clients are facing difficult struggles; to create trust.
<b>Empathizing</b>	Identifying with clients by assuming their frames of mind	To foster trust in the therapeutic relationship; to communicate understanding; to encourage deeper levels of self-exploration.
<b>Facilitating</b>	Opening up clear and direct communication within the group, helping members assume increasing reasonability for the	To promote effective communication among members; to help members reach their own goals in the group.

	group's direction.	
<b>Initiating</b>	Promoting group participation and introducing new directions in the group.	To prevent needless group floundering; to increase the pace of group process.
<b>Goal setting</b>	Planning specific goals for the group process and helping participants define concrete and meaningful goals.	To give direction to the group's activities; to help members select and clarify their goals.
<b>Evaluating</b>	Appraising the ongoing group process and the individual and group dynamics.	To promote better self-awareness and understanding of group movement and direction.
<b>Giving feedback</b>	Expressing concrete and honest reactions based on observation of members' behaviors.	To offer an external view of how the person appears to others; to increase the client's self-awareness.
<b>Suggesting</b>	Offering advice and information, direction, and ideas for new behavior.	To help members develop alternative courses of thinking and action.
<b>Protecting</b>	Safeguarding members from unnecessary psychological risks in the group.	To warn members of possible risks in group participation; to reduce these risks.
<b>Disclosing oneself</b>	Revealing one's reactions to here-and-now events in the group.	To facilitate deeper levels of group interaction; to create trust; to model ways of revealing oneself to others.
<b>Modeling</b>	Demonstrating desired behavior through actions.	To provide examples of desirable behavior; to inspire members to fully develop their potential.
<b>Linking</b>	Connecting the work that members do to common themes in the group.	To promote member-to member interaction; to encourage the development of cohesion.
<b>Blocking</b>	Intervening to stop counterproductive group behavior.	To protect members; to enhance the flow of group process.
<b>Terminating</b>	Preparing the group to close a session or end its existence.	To help members assimilate, integrate, and apply in-group learning to everyday life.

From: Corey, G. (1990). Theory and practice of group counseling. (3<sup>rd</sup> ed.). P

## ➤ **Skill 9: Dealing with the Difficult/Challenging Participant**

Here are some examples of the most common, challenging counseling interactions and some suggestions on how to handle them.

### **\* The Participant Who Won't Return Calls**

You can't force someone to return your calls. What you should do is call several times and leave a message from time to time. You can say something like, "Hi, this is Andrea calling from TEAM. I just wanted to chat with you for 5 or 10 minutes. Please give me a call at XXX-XXXX when you have a moment. If I don't hear from you in the next couple of days, I'll call again." This lets your participant know that you don't want to take up much of her time and that you are persistent and call her again if she doesn't follow up. Document each time you call and/or leave a message.

Sometimes, a person doesn't call back because they have not exercised. If you suspect this to be true, try something like: "Hi, this is Andrea calling. I haven't been able to get a hold of you lately. I just want to check in and make sure you're OK." Hopefully, this will let your participant "off the hook." Then, when you reach her, you can discuss what her barriers to physical activity are and help her problem solve, and ease the participant's mind that he/she hasn't let you down by not exercising. If everyone exercised successfully between calls, they wouldn't need a counselor!

### **\* The Chatty Participant**

Some participants can be isolated or lonely, and many times a participant is just excited or relieved to talk to a caring, concerned person. Usually, a couple of moments of "checking in" help. Something like, "How was your week?" can give your participant a moment to connect with you. Sometimes, though, you will find that it is very hard to keep the focus on exercise. Participants may want to discuss spouses, jobs, health problems...ANYTHING but exercise! Your role is to keep the participant focused on the objective of the call, and not let the conversation "run away" from either of you.

The best way to handle a chatty person is to keep tight-but-polite boundaries, specifically:

1. Explain your expectations at the very beginning of the call.

Example:

"Hi this is Andrea. I'm calling to check in about your exercise. I only want to take about ten minutes of your time. I have some specific questions to ask you, and then I'll give you some time to ask me any questions you might have. OK?"

2. Keep focused on the issues that need to be discussed and avoid the issues that don't need to be discussed.

Example:

"It sounds like you had a crazy week. In terms of exercise, what do you think you can do to fit in three sessions this week?"

3. An open-ended question may not give enough structure for the real chatterbox. Someone may answer the above question with, "Well I just don't know. The electrician is coming Tuesday. Did I tell you the microwave went out last week? It blew a fuse and now none of the appliances work..." Therefore, you might have to provide more structure.

Example:

"It sounds like you're having a lot of trouble around the house this week. Are you willing to try to walk one time for 30 minutes?"

4. With a talkative participant, you may have to interrupt at times to get the conversation back on track. That's OK! You're not being rude. Don't hesitate to interrupt, or you will find yourself on the telephone for much longer than you wanted, and are left with unanswered questions and a lot of frustration. It gets easier to interrupt once you've done it a few times and successfully re-focused the discussion.

Example:

"I'm going to interrupt for a second. I know your time is limited and I want to be sure we answer all of the questions I need to ask. You were telling me about walking. Exactly how many times did you walk?"

5. Since you've established boundaries at the start, stick to them. Letting the conversation stray or go over the stated length of time sends a message that you've got all the time in the world for your chatty participant!

#### \* **The Busy Participant**

Some participants don't want to spend much time on the telephone. It is important to acknowledge that you understand how busy your participant is, and tailor the phone call to the time they have available for you.

Let her know that you will only take up ten minutes of her time...THEN STICK TO IT! You may have to shorten your calls by just asking essential questions such as frequency, duration, type of exercise, and enjoyment ratings.

Consider examining or evaluating your previous contacts with the busy or avoidant participant: Have the phone calls moved too slowly or been awkward in the past? Did the participant seem distracted, uninterested, or bored? Are there

ways that you as the Interventionist could have made the phone calls more effective or lively? You may have to test out different approaches or techniques in your counseling skills that may work better with each participant's telephone "personality".

Sometimes, the constantly busy participant just doesn't want to talk to you. Try to get a feel for whether she really is too busy to talk, or whether she's avoiding you because she hasn't been exercising. Let her off the hook if you think she's being avoidant.

- \* Our purpose is NOT to make people feel guilty if they don't exercise. Remind participants that physical activity's something they do for themselves, not for you. They don't disappoint or hurt you if they don't exercise! What kind of job would it be if none of your participants needed your help? Your goal is to help participants incorporate more activity into their lives, and it's okay to acknowledge that sometimes this is difficult. When you communicate your understanding in this way, the participant is more likely to open up and "confess" that they can't physical activity or they don't like to exercise. This opens the door for you to help them problem solve in new and effective ways.

#### \* **The Emotional Participant**

People get emotional— it's natural. Sometimes people are disappointed in their physical activity and they turn that upset toward you. Sometimes, people have experienced a job loss, a family illness, or a stressor. Your job is to discuss exercise, not to be a counselor; however, you do need to discuss physical activity in a way that still acknowledges and respects the person's emotions. Here are some helpful steps for dealing with an emotional person:

1. **Do not get angry, hurt, or emotional back.** The first step is for you to control your own feelings and stay calm. If you cannot, as politely as possible, try to reschedule the contact.
2. **Give the other person the right to feel sad, disappointed, angry, or whatever the feeling is.** The other person has a right to feel and express anger as well as happiness, joy, and sadness.
3. **Recognize the emotions as feelings that may signal frustration, not feeling listened to, etc...** Try to identify the source of the upset.
4. **Keep focusing your own and the other person's attention on the task - exercise.** Don't get completely sidetracked by the emotions.

5. **Use other emotions such as respect or affection to help the emotional person regain composure.** Sometimes a sudden show of respect or affection will change the other person's mood. "It sounds like you're going through a hard time."
6. **Present a rational explanation of the situation.** Understanding the situation can help the other person understand the cause of his or her emotion and begin to calm down. "It sounds like caring for your mother is a big responsibility and you're disappointed that it's difficult to exercise."
7. **Model expressing emotions constructively.** Be a calm role model.
8. **Talk to yourself.** Remind yourself, "I'm good at managing other's emotions." "His anger is a minor annoyance, not a major catastrophe."
9. **When you cannot handle a situation seek help.** Call your supervisor without hesitation. Before telephoning an emotional person, talk through the situation with your supervisor.

**Note:** Occasionally, a person is just too emotional to discuss physical activity and it's best to say, "It sounds like you're going through a lot right now. Why don't I give you a call in a couple weeks and we can talk about physical activity then."

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Adapted from Reaching Out—Interpersonal Effectiveness and Self-Actualization, David Johnson, Allyn and Bacon Publishing, 2003

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\* The Ill or Injured Participant

Over the course of a year-long program, participants may become ill or experience an injury beyond the occasional or expected soreness and fatigue that come with starting a new physical activity plan. *Never give a participant medical advice or opinions about treatment.* Do, however, refer the participant to his or her physician and our staff clinic coordinator. Use the following questions and guidelines to help you assess and handle the illness/injury appropriately.

1. "What are your symptoms?"
2. "Have you seen your physician?"

**IF THE PARTICIPANT HAS SOUGHT MEDICAL ATTENTION...**

1. "What is the diagnosis?"
2. "Is your injury/illness exercise-related?"
  - If yes... "When and how did the injury/illness occur?"



1. *“Did your doctor recommend that you continue, modify or stop exercising?”*
2. Recommend that the participant follow his/her physician’s advice.
3. Set a physical activity goal in accordance with the physician’s recommendation.
  - a. If the physician recommended modified exercise, set a modified goal (i.e. reduced frequency, intensity, duration, or a different activity).
  - b. If the physician recommended against exercise, do not set a goal.
4. Tell the participant that when he/she is better and the physician recommends resuming exercise, he/she should resume at a lighter level.
5. If the participant is interested in discussing exercise, talk about physical activity prior to the illness/injury and the physical activity he/she looks forward to upon recovering.
6. Tell the participant that you will talk about this again during your next call.
7. Record the participant’s responses to these questions in your progress notes.
8. Notify your project manager about the illness/injury.
9. Complete an Adverse Event form.

#### **IF THE PARTICIPANT HAS NOT SOUGHT MEDICAL ATTENTION...**

- *“Is your injury/illness exercise-related?”*
- If yes... *“When and how did the injury/illness occur?”*
- Recommend that the participant contact his/her physician or advice nurse for medical and physical activity advice.
- Recommend that the participant stop exercising until the participant receives approval for physical activity from his/her physician.
- Do not set a physical activity goal with the participant.
- If the participant is interested in discussing exercise, talk about physical activity prior to the illness/injury and the physical activity he/she looks forward to upon recovering.
- Tell the participant that you can call them in 2 weeks after they’ve spoken with their doctor, or you can talk to them at their next scheduled contact.
- Record the participant’s responses to these questions in your progress notes.
- Notify your project manager about the injury/illness.
- Complete an Adverse Event form.

**\*\*\*Note: In any circumstance, if a participant reports any of the following symptoms (dizziness, nausea, shortness of breath, chest pain (including chest discomfort or pressure, left arm pain, or report indigestion or stomach discomfort), tingling in the hands or feet, or left arm pain)**

during or after exercise, recommend that the participant stop exercising and call his/her physician immediately.

### **Potential Illnesses and Injuries: Sorting out the Expected from the Unexpected**

The following table lists the types of health complaints that participants tend to mention over the telephone. The health issues in the left-hand column are ordinary/common and generally are not cause for great concern. The issues in the right-hand column are atypical and warrant more attention. If you hear a participant mention issues in the right-hand column, please contact project manager so that you and the intervention team can develop an appropriate and safe action plan for the participant.

<b>Common:</b>	<b>Uncommon:</b>
<ul style="list-style-type: none"><li>• Muscle soreness</li><li>• Stiffness</li><li>• Runny nose</li><li>• Allergies (without chest congestion or asthma)</li><li>• Stress</li><li>• Fatigue</li></ul>	<ul style="list-style-type: none"><li>• Pulled or strained muscles, tendons, or ligaments.</li><li>• Joint pain</li><li>• Joint swelling</li><li>• Ankle or knee injury</li><li>• Chronic foot pain</li><li>• Back pain</li><li>• Neck pain</li><li>• Decreased range of motion in joint</li><li>• Broken bones</li><li>• Recurring blisters</li><li>• Fever</li><li>• Chest congestion or chest cough</li><li>• Asthma</li><li>• Flu</li><li>• Bronchitis</li><li>• Pneumonia</li><li>• Surgery</li><li>• Other illness</li></ul>

\* **Keys to Counseling during Difficult Situations:**

1. Be nonjudgmental
2. Be empathic
3. Give individualized advice to help problem solve
4. Don't ask "why" or close-ended questions
5. Don't take ownership of the participant's behavior
6. Don't interpret (when a paraphrase will do)
7. Stick to the "Here and Now"
8. Stick with the topic of exercise
9. Ask for help when you need it
10. Give encouragement and praise for the small things

\* **When to Seek Help:**

You are encouraged to seek support from your supervisory staff at any time.  
Seek consultation when:

1. You have a question about exercise, or when you can't answer a question posed by your participant.
2. You want to validate or verify something you told your participant.
3. You have a particular difficulty with your participant. For example, if he or she talks too much, or is resistant to your suggestions, and you have difficulty finding a solution, seek consultation from an objective third person.

Seek consultation ***immediately*** if a participant talks about depression, alcohol, drugs, abuse of self or another, or suicide.

#### **IV. First Individual Face-to-Face Contact**

*Initial Counseling Session:*

*Welcome to the LIFE Physical Activity Program*

##### **Objectives**

In this session the participant will:

- Meet the individual counselor
- Receive an overview of the physical activity program
- Review the goals of the program and why they are important
- Discuss personal outcome expectancies and concerns
- Discuss key aspects of the individual counselor–participant relationship

#### **WELCOME AND INTRODUCTION**

Greet the participant in an enthusiastic and friendly manner.

*Hello. It is good to see you. How are you?*

#### **INTRODUCTION TO THE LIFE STUDY**

The most important part of this session is to establish rapport with the participant. Encourage the participant to ask questions and express concerns. This session should be conversational rather than didactic. Use open-ended questions to facilitate the participant's speaking freely. Begin by covering the following:

- Greeting and your background/role in the LIFE STUDY
- Participant's background
- Program overview
- Personal goals and concerns

##### **A. Greeting/Background & Role in LIFE/Other Staff**

*Hello \_\_\_\_\_. My name is \_\_\_\_\_. It is great to meet you and to have this opportunity to introduce you to the LIFE Physical Activity Program. We will talk today about what it means to be in this Program, but let me first tell you a little about myself. My role in the LIFE STUDY is \_\_\_\_\_. Other staff you may have met or will meet include \_\_\_\_\_. [Use staff photo here - optional.]*

## **B. Participant's Background**

Open-ended questions should be used to elicit information about participants and allow them to talk about the issues that are most important to them. Encourage participants to share information about their family, occupation, interests, and hobbies. In addition, determine what lead them to join the LIFE STUDY. What benefits do they hope to achieve? Try to use information you already know about the participant to begin the conversation. For example, where he/she lives or works:

*I would like to know more about you. Tell me about yourself.*

*Additional probes: Tell me about your work.  
Tell me a little about your family.*

## **C. Program Overview**

Provide a brief overview of the program. Indicate that it is designed to help older adults improve their physical function and to prevent physical disability. We hope this will improve your physical function and overall health. Indicate that the participant is one of 200 people from four sites nationwide who is receiving the program (provide map). The program is sponsored by the National Institutes of Aging.

Briefly review the structure of treatment:

**Center-based physical activity:** They are involved in physical activity 3X each week under close supervision at the physical activity facility for the first 2-months with information provided on the “nuts and bolts” of physical activity and exercise. From months 3-6, they will come to the center 2X each week and be physically active at home on most days of the week. For the remainder of their time in the study they will come 1X each week to the center and be physically active at home on most days of the week.

**Group Sessions:** Once they are familiar with the physical activity program, they are placed in a group with 10-15 other older adults in LIFE. This group will then meet for 10 consecutive sessions after one of physical activity sessions each week to talk about skills that they need to have to make their physical activity program a success.

**Phone Calls:** They will receive monthly phone calls throughout the study from their counselor to review progress, discuss concerns, and solve problems that arise.

## **D. Personal Goals and Concerns**

It is very important to discuss personal goals and concerns. What do you to achieve from being involved in this study? Have you ever tried this type of program before? Did you do it on your own? What happened? Do you have any concerns or questions before you begin the LIFE physical activity program?

### **INDIVIDUAL COUNSELOR-PARTICIPANT RELATIONSHIP**

Introduce the guidelines for establishing a “winning team” with the participant. Let the participant know they can count on you to help them reach goals, answer questions, be honest, and provide support.

***I want to make sure that you achieve your best possible results in our program. I have found, in helping other people, that you will probably be most successful if you:***

- **Come to all the sessions**
- **Do your best to reach your activity goals**
- **Let someone know if you have any problems.** *Ask questions when you don't understand something. I am here to help and I need to know when you are having any difficulties. There is no such thing as a “stupid” question. It's smart to speak up when you have a question.*
- **Stay willing and open to change**
- **If possible, please call 24 hours ahead if you must miss a meeting.** *For example, call before Monday afternoon if you must miss a Tuesday afternoon meeting.*

*Some participants, because of their cultural heritage or personal history, may consider it rude to ask questions or to bring up difficulties. This is true, for example, of many Hispanics. With these participants in particular, be sure to express your acceptance and appreciation when they voice their questions and concerns.*

*I will help you in any way that I can including:*

- **Reviewing your progress**
- **Answering your questions.** *It is important that you feel free to ask me any questions you have, and I will get the answers for you. Please remember that the LIFE staff are experts and our job is to teach skills and make our expertise available to you in any way we can.*
- **Standing by you when you need me to support your changes**
- **Believing you can reach your physical activity goals.** *We all need someone to believe in us when we are making changes for the better. I know you can do it, and when you get discouraged, I am here to provide feedback.*

*Is there anything else you would like me to do to help you?*

### **CLOSE**

Address participant questions  
Provide a next session reminder  
Thank the participant

*Do you have any questions I can answer for you?*

*Our next session is \_\_\_\_\_*

*It was a pleasure to meet you and I look forward to seeing you next time.*

*Thank you for coming in today.*

## **V. Protocol for Phone Counseling (SCT)**

The following section will describe the structure of the telephone contacts in general and provide scripts and various example scenarios. Consistent with the behavioral intervention to be used in the LIFE study, telephone contacts are conducted based on social cognitive principles with the purpose of enhancing and/or maintaining motivation, retention/adherence to study protocols, and problem solving. Telephone contacts will consist of the following elements: preparation, initial greeting, feedback (including examples of potential participant response scenarios), discussion targeted at social cognitive principles, social-environmental factors, behavioral contract, and salutation. Each of these elements is described below.

### **I. Preparation**

- A. Consult clinical notes.
- B. Inspect attendance logs.
- C. Note any changes in physical activity behavior, performance.
- D. Inspect home physical activity logs (e.g., FITT; if not available, request this information from the participant).

### **II. Initial Greeting**

- A. "Hello \_\_\_\_\_, this is \_\_\_\_\_ from the LIFE Study. How are you today? I was wondering whether we could talk about your physical activity program for a few minutes. Do you have about 15 minutes to talk right now?"
- B. If NO, arrange a specific time for telephone contact.
- C. YES, "Great! I would like to talk to you about to about your physical activity program, provide you with some feedback regarding your

- progress, discuss any problems you may have encountered, and develop some goals for the upcoming month. Does that sound OK?
- D. If NO, inquire why.

III. Feedback (sections III & IV can be merged into one discussion)

- A. Provide feedback regarding the participant's progress in the physical activity program.
- B. Discuss overall progress as well as progress over the past month.
- C. Example scenarios
  - (1) Much progress: "I see here you have attended all your physical activity sessions with the group as well as your home exercises. That is fantastic! You should be very proud of your accomplishment. Sticking with a physical activity program is very difficult, and you have done very well. I can also see from your activity log that you have improved in every strength training physical activity and you are walking for a longer period of time. Well done! How do you feel about your progress?"
  - (2) Mediocre progress: "I see you have attended some of your physical activity sessions with the group, and some at home, on your own. That is a great improvement! You moved from 'not doing anything (sedentary),' to being physically active. It seems that you have missed a few sessions over the past month, but overall you seem to be getting the hang of it. How do you feel about your progress?"
  - (3) Very little progress: "It seems that you have not attended your physical activity session regularly. Is this accurate (I want to make sure my records are accurate)? Would you say that being physically active is not a priority for you? [at this point, you may proceed to 'problem solving.']
  - (4) For telephone contacts after 6 months, ask specifically if they are continuing their walking program, strength training, and balance. If they have stopped exercising completing invite them back to the once per week exercise sessions that are offered.

IV. Discuss motivational concepts (self-efficacy);

- A. Objective: to enhance the participant's confidence in her ability to maintain her physical activity program. This can be done by using the below structure as a guide for discussion topics.
- B. Performance accomplishments (this is the most powerful source of perceptions of capabilities and, thus, should be emphasized.
  - a. Objective: discuss mastery experiences and improvement with the participant.
  - b. Examples:
    - i. Attendance; center-based physical activity and home-based exercise.



- ii. Improvements in strength, endurance (i.e., walking distance)
  - c. Changes in physical functioning
    - i. Everyday tasks
    - ii. IADL, BADL
- C. Social modeling
  - a. Objective: to get participants to think about or observe similar others successfully maintain their physical activity program and, perhaps, their physical functioning.
  - b. Examples
    - i. Does the participant know anyone else that exercises regularly?
    - ii. Has the participant observed other members of the group exercising?
  - c. Please Note: when evaluating one's progress, it is common for participants to may make references to "social comparison." In other words, the participant may respond with, "Why can't I lift as much as Betty? She is older than I am!" This type of social comparison should be discouraged because it can be demotivational. In such cases discuss with the participant why "Betty" can lift more (e.g., Betty attends more physical activity sessions; she does not have osteoarthritis in her shoulders, etc.)
- D. Verbal persuasion
  - a. objective: provide ample verbal encouragement to enhance the participant's confidence in her ability to maintain her physical activity program.
- E. Interpretations of physiological events/changes
  - a. Objective: discuss actual physiological changes experienced by the participant and how those changes are interpreted.
  - b. Examples
    - i. Feeling states:
      - 1. How does the participant feel while exercising? How does the participant feel now as compared to the beginning of the program?
      - 2. Is she as fatigued now as she was at the beginning of the program?
    - ii. Heart rate:
      - 1. Demonstrate for the participant that her resting heart rate is lower than it was at the beginning of the program, which is an indication that she has increased her fitness level.
      - 2. Demonstrate that her physical activity heart rate is lower that it was prior to the program;
      - 3. heart rate recovery is faster.
    - iii. Comfort level:

1. Inquire as to the participant's comfort level with performing the exercises. Is she more comfortable with these skills now as compared with the beginning of the program?
  2. Is she more comfortable exercising in front of her peers?
- F. Explore social-environmental factors
- a. Social support: are the participant's significant others supportive of her participation in the study? Do they encourage her to physical activity at home? If not, can that be changed?
  - b. Social aspects of group: does the participant enjoy the group? Does the participant feel included in the group? Does the group offer any sort of motivation to physical activity for the participant?
  - c. Environment
    - i. Physical/built environment (e.g., access to facilities)
    - ii. Weather
- G. Barriers
- V. Behavioral Contract
- A. Tailor a new behavioral contract for the participant that is specific to the issues discussed thus far.
  - B. Should be designed for goals/expectations for the next month.
- VI. Salutation
- A. "Thank you very much for your time. It has been a pleasure speaking with you and discussing your physical activity program. I hope I was helpful in developing means to overcome barriers and resolving the issues we discussed. Please feel free to contact me if you have any questions."

## **VI. Outline and Content of Group Sessions**

In this section of the document, we have outlined the group sessions as they are delivered to participants. The content of these sessions is as follows:

1. On Being an Effective Group Member and the Motive for Behavior Change
2. Review of Outcomes & The Face of Physical Disability
3. Self-Awareness & Self-Monitoring
4. Review of Self-Monitoring and Setting Goals for Home-Base Physical Activity
5. Evaluating Your First Goal Setting Experience & Building Confidence in Setting Weekly Goals
6. Barriers to Physical activity and the Art of Problem Solving
7. How what we think influences how we act
8. Physical activity Related Thoughts and Feelings
9. The Value of Social Support and How to Create It
10. The Transition to Maintenance

*We are what we repeatedly do.  
Excellence, then, is not an act, but a habit.*

-ARISTOTLE

## **WELCOME TO THE LIFE PHYSICAL ACTIVITY PROGRAM!**

I want to officially welcome you to our group, which is designed to help each group member become a healthier and independently active person. Our program is state of the art, designed based on the latest research in physical activity and behavior change, giving **you** the tools that you need in order to learn new, positive behaviors and how to identify and change negative behaviors. By the end of our time together, you will possess all of the skills that are needed to transition to and maintain an active lifestyle on your own. You can already take pride in just being here ready to start this exciting new program! You have taken the first, very important step in this process.

Over the next 10 weeks, we will cover several topics that strongly influence how and to what extent you modify your activity level. Overall, here is our purpose for the Life Activity Program (LAP):

**To equip you with the tools, practice, reinforcement, and information that you need in order to increase your confidence about being more independently active for the rest of your life.**

Lastly, we would like to touch on the importance of the dynamics of this group and group participation. We all come from unique backgrounds and have many different experiences to share. This fact will allow us to each bring something special to the group, maximizing our ability to increase physical activity in our daily lives. How our group interacts will influence the success of this program. Positive group participation is a key component, as we help each other become and stay active.

*Together, we will share our successes and our challenges; but, using problem-solving skills, we will solve our concerns and meet our goals. Please, as we move towards a new active, healthy lifestyle, respect the group and the atmosphere; this will make this fun and successful for everyone! Are you as ready and excited as we are? Yes? So, let the process of becoming more active begin!*

## **Session 1: On Being an Effective Group Member and the Motive for Behavior Change**

### **\* Review:**

- We will briefly discuss the LIFE study and review the purpose.
- We will also discuss the handout on rules for making groups work that you read before this session. (see appendix A).

### **\* Session Objectives:**

- Decide on group rules / group name.
- Introduce the importance of motivation in behavior change.
- Assign/discuss homework assignment to be reviewed at Session 2: The face of physical disability.

### **Being an Effective Group Member**

Participating in a behavior modification group can be a very rewarding and positive experience. Our goal is to create an environment that you feel comfortable in. You should feel comfortable to discuss your goals, barriers, and accomplishments in becoming more physically active. Let's discuss briefly how we can all contribute in a healthy and helpful manner. (Review handout)

Group Name: \_\_\_\_\_

Group Rules / Guidelines:

- 1.
- 2.
- 3.
- 4.
- 5.

## Motivation: An Important Component of Behavior Change

One of the most important **motivational factors** in becoming a more physically active person is to better understand WHY you want to make positive, healthy changes in your life. Remember, there are many reasons why people decide to become and stay active. What's important is that you know and believe in your own motivations for making these changes. In our first assignment for the group, we are going to ask you to examine why you want to make activity a regular part of your life. Let's take a few minutes to look over the assignment.

### Assignment #1, Beginning with the End in Mind: Why do you want to change your lifestyle?

Below are questions that are related to why you want to become a more physically active person. Please take a few minutes to think about each question as it relates to you and then write down your thoughts. The next time we meet, we will discuss your answers and how we, as a group, can help each other with our motivations for activity.

1. What are the benefits that you believe that you can get from becoming more physically active?

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2. What are **YOUR MAIN MOTIVATIONS** for wanting to become more active? Why do **YOU** personally want to change?

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3. Over the next few months, we will teach you the skills you need to become more active. Initially, how can we help you in making these changes?

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## *Lesson Plan for Behavioral Session # 1*

### **Title: Being an Effective Group Member and the Motive for Behavior Change**

#### **Session Objectives: The participants will be able to:**

1. Introduce themselves to the other group members by answering three questions.
2. Understand and verbalize the purpose of the LIFE study and the behavioral group sessions.
3. Discuss and decide on group guidelines / rules.
4. Complete homework assignment to be reviewed at the beginning of the next session and brainstorm for examples regarding a group name.
5. Verbalize questions and concerns.

#### **Session Procedures:**

- I. Introduction (10-12 minutes)
  - a. Greeting
    - i. Behavioral Interventionist (BI) introduces him/herself
    - ii. The BI facilitates participant introductions
      1. Where are you from?
      2. Why did you join LIFE?
- II. Purpose of the LIFE Study (3 minutes)
  - i. The purpose of the LIFE study is to foster excitement about Physical Activity and to progressively increase your confidence in your ability to resume or begin a physically active lifestyle with an ultimate goal of reducing your risk for disability.
  - ii. As you progress through LIFE, you will identify what is important to you / what you value and use this to set goals. Staying aware of these values will help to motivate you as you work to maintain your behavior changes.
- III. Group Guidelines / Creating a positive environment (10 minutes)
  - a. Review concepts in "How to be a good group member" handout
  - b. Set group guidelines (write on board and in participant notebook)
  - c. Brief overview of the organization of a typical group session
    - i. Intro / review assignment / objectives for session
    - ii. Interactively cover material
    - iii. Review of progress / how are you doing?
    - iv. Questions / Problem Solving
    - v. Summarize and end session
- IV. Review Homework Assignment (3 minutes)

- a. Group name
  - i. Discuss the importance of a group name and pair up participants.
  - ii. Assignment: participants in each pair are to brainstorm over the next week and come up with examples for a group name. The BI can propose that the participants in each pair exchange phone numbers and contact each other to discuss ideas prior to the next session.
- b. Three questions
  - i. The BI should read the three questions and ask participants to write their thoughts prior to the next group session.

V. Answer Questions / Wrap Up (2 minutes)

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 1 will be performed at the beginning of Session #2  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader and a group name will be voted on.

## **Session 2: Review of Outcomes & The Face of Disability**

### **\* Review:**

- Vote on our group name
- Discuss the three homework questions from Session 1

### **\* Session Objectives:**

- To become aware of the benefits of physical activity and further express why you joined the LIFE study
- To increase our knowledge regarding disability, our own level of physical function, and the risk of disablement
- To discuss the role that physical activity plays in preventing further loss in function and reducing our risk of disability

## **Reviewing Outcomes (Let's discuss your past assignment)**

- What are the benefits of regular physical activity?
- What are your main motivations for joining the LIFE Study?
- What can the LIFE staff do to help you achieve your outcomes?

One of the reasons that people change their behavior is that they want to alter the past or achieve a new goal. No doubt, each one of you has identified some important reasons for being a part of the LIFE study. Hopefully, as we work together, you will achieve some of these outcomes and identify many others that “increase” your desire or motivation to be physically active!

In fact, during the next few weeks, we will be talking about ways to track your accomplishments in LIFE and some important features about the outcomes, or goals, for this study. For the remainder of today's lesson, however, our objective is to better understand a concept called disability. Let's begin by defining disability.

## **The Face of Disability**

**Disability** means having a limitation in performing usual activities. These limitations oftentimes interrupt our daily lives and may have detrimental effects on multiple aspects of our physical as well as our



mental well-being. In other words, disability refers to the gap between a person's abilities and the demands of his/her environment. Let's discuss your perceptions of disability.

Here's a simple question – how many of you would say that you experience disability? When you think about this question, we want you to think about things that you have had trouble with or given up on lately due to your physical or mental function and how these defeats have impacted your daily life. These are tough questions to answer, and, oftentimes, you and your peers in this group will have varying answers or thoughts regarding your limitations and risk for disability.

Think about a disability scale of 0-10, with 0 being no disability and 10 being significant disability, where do you rate? It is important to note that no matter where you are on this scale, disability is a continuous process of losing function in daily life. Oftentimes, as age increases, people start giving up on certain activities without even realizing that they are experiencing disability.

## **THE GOOD NEWS...**

Yes, all of you have had a decrease in your function, putting you at risk for possible disability, but you have a chance to decrease that risk, you have a chance to change! Physical activity is one avenue that can be used to improve physical and mental function and, thus, reduce your risk for further disablement. Therefore, since you have already joined the LIFE study, you have taken a very important step towards a more active and higher functioning self.

One can ultimately think about the concept of disability and the purpose of the LIFE physical activity intervention as a waterfall and the river / creek beds above that waterfall. If you are far away from the edge of the waterfall, then oftentimes you feel secure and have confidence that you will not fall over the edge. The closer you get to the edge of that waterfall, the more fearful you become of something happening. What we often forget when viewing waterfalls is that one small slip, one small loss of balance, or one misplaced foot could change things for the worse, and we could fall over the waterfall. In the LIFE study, we want to use physical activity participation and behavioral strategies to push you as far away from the edge of the waterfall or “disability” as possible. Sure, while exercising, we focus on aspects like stamina, strength,

balance, etc., but all these components ultimately aim at increasing your level of physical functioning and improving your ability to perform daily activities.

So, can we all agree that physical disability is an important area of concern as we age?

Now, let's brainstorm on how we can reduce our risk of disablement.

**Group Activity:** Developing a strategy for reducing our risk for disability.

**Our strategies reducing our risk for further disablement:**

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.



**Don't fall down the slippery slope of disablement!  
Now is the time to act!**

## Assignment # 2, Brainstorming about Disability

Please take some time to reflect and write down any thoughts regarding these statements. We will discuss your thoughts during the next group session.

## Brainstorming about Disability...

- 1. Regarding my physical function, I have noticed that...**
- 2. These changes make me feel...**
- 3. I have learned in LIFE that physical activity can...**
- 4. I have decided to do the following things to reduce my risk of disablement and further loss of function...**

## *Lesson Plan for Session # 2*

### **Title: Review of Outcomes & The Face of Disability**

#### **Session Objectives: The participants will be able to:**

1. Discuss and vote on examples of a group name.
2. Obtain and share a better understanding of the benefits of physical activity and their motivations for wanting to become more active by answering the 3 questions and allow participants to voice their needs directly to the group leader regarding how he/she can help make this a successful intervention for them.
3. Understand and verbalize the meaning of physical disability, their current level of function and risk for disability, and why it is important to be aware of our physical and psychosocial function as we age.
4. Discuss the effect regular physical activity participation has on disability.
5. Develop a general strategy in order to modify the disablement process and reduce their risks. The group will focus in on this throughout the study.

#### **Session Procedures:**

- VI. Greeting / Review of Outcomes (10 minutes)
  - a. Behavioral Interventionist (BI) greets participants as they arrive and hands out any materials.
  - b. The BI facilitates a brief review of Session 1 key points and the homework assignment (the three questions). BI asks participants to share their answers with the group as the leader writes common answers to each question on the board.
  - c. The BI will end by underscoring the importance of the life study, though summarizing the benefits of PA participation and the overall participant expectations.
- VII. The Face of Disability (10 minutes)
  - a. Define disability (see session # 2 handout)
  - b. Discuss the participants' perceptions of disability and their current level of function / risk for disability.
  - c. Discuss among the group any experiences that that the participants have had in the past regarding losing some of their function and not being able to do their daily activities / interests. How did this make them feel?
  - d. Discuss the importance of regular physical activity participation in improving physical function and reducing one's risk for further disability. Review the "waterfall" analogy.

- VIII. Group Activity: Developing a strategy to increase our function and reduce the risk of disablement (8 minutes)
- a. Discuss strategies among the group by asking questions such as: What have you done in the past to help you gain back your function? What helps motivate you to do physical activity at home or in the community? What are some things that you have been trying regarding being more active?
  - b. The group leader will write key strategies on the board and direct the participants to copy this down on their session 2 worksheets.
- IX. Review Homework Assignment (2 minutes)
- a. Read the assignment and ask the participants to complete it by the next group session.
  - b. Answer any questions that the participants may have regarding the assignment and wrap up the session.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 2 will be performed at the beginning of Session #3  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the BI.

## Session 3: Self-Awareness and Self-Monitoring

### \* **Review:**

- Discuss the homework from Session 2: Reflecting on Disability.

### \* **Session Objectives:**

- Learn about two key skills, self-awareness and self-monitoring, that will help you to increase your motivation.
- Review progress in the physical activity program (steps, total minutes walking).
- Reflect on feelings regarding exercise and accomplishments.
- Review the physical activity log and discuss how to use it in order to successfully integrate PA into your daily life.

During the past two weeks, we have discussed the primary reasons for why you want to be more physically active, the benefits of being active and the concept of physical disability. Now, you will begin to learn how to make changes in your behavior in order to start the process of integrating physical activity (PA) into your daily life.

One of the first steps in making this important lifestyle change is to know how active you are currently or, in other words, to become **MORE SELF-AWARE** of the amount of activity you are doing.

The best way to become more self-aware is to start **SELF-MONITORING** your activities. And, the best way to self-monitor is to **WRITE DOWN** (or **RECORD**) your activities every day. This gives you the advantage of being able to evaluate your activity over long periods of time without relying on memory. Self-monitoring will also allow you to identify patterns of behavior so that you can notice your strengths and weaknesses and modify your behaviors accordingly.

Now, let's discuss two self-monitoring tools that will help you to continue to become more aware of your current physical activity. They include:

- **Your PHYSICAL ACTIVITY LOG**
- **Your PEDOMETER**

Together, these tools will help you to better understand your PA and give you a starting point from which to begin your independent PA program.

In fact, you have already been recording your steps and daily PA since you started the LIFE study. Today, we have given you a brief progress sheet based on what you have been recording. Let's take a few minutes to review your progress.

### **Examining Our Progress in the LIFE Study**

- Steps
- Minutes of physical activity

### **Building on the Idea of Self-Monitoring with Relaxing Reflection:**

It is also important to increase our awareness not only of how much activity we are doing but also of the physical and mental changes that we experience as a result of being active. Think about the changes related to physical disability that you mentioned at the beginning of the session. Also think about how physical activity has become an important means to help you accomplish your goals.

Would you all agree that being aware of these changes is the essence of self-monitoring?

One way to bolster our awareness is to practice relaxation techniques like meditation. With regards to physical activity, you can focus on realizing the positive changes that you experience by being active on active on a regular basis.

To do this, sit in a relaxing room, turn on some soft music, and just start to focus on how you have felt since you have joined the LIFE study. Let your mind wander as you think about all the positive changes. Continue to explore your thoughts about your accomplishments for about five minutes. After you are finished, you may want to write down your feelings to refer to later.

This strategy will help you to increase and maintain your motivation and confidence for becoming more physically active.

### **Assignment #3: Using self-monitoring to become more aware of your present activity level and habits**

1. You will now continue to increase your awareness by writing down any physical activity that you do each day in addition to recording your daily pedometer steps.
2. If you do physical activity at the LIFE program, you will simply write “C” in the “NOTES” section of the Physical Activity Log.
3. If you do physical activity outside of the LIFE study (at home or in the community) you will record the total number of minutes (in the “Minutes of Physical Activity” section) that you were active and the type of physical activity that you did (in the “NOTES” section).
4. Later, when you prepare to transition to home based activity, you will record your strength and balance training information in addition to your steps and physical activity.
5. If you are absent from the LIFE study just leave the parameters blank. In other words, do not write a “C” in the “NOTES” section.
6. If you exercise at the LIFE study and do exercise at home on the same day, just write “C” for the center based exercise and write your total minutes for home based exercise in the “Minutes of Physical Activity” section. Write the type of home based activity in the “NOTES” section.
7. Please always feel to call us if you have any questions regarding the completion of your physical activity logs.

**Let’s now look at an example of what a typical week may look like on your physical activity log. Do you have any questions?**

**For the next group session, we will review your physical activity log and discuss how much more self-aware you have become and how you are doing with self-monitoring!**



## *Lesson Plan for Session # 3*

### **Title: Self-Awareness and Self-Monitoring**

#### **Session Objectives: The participants will be able to:**

1. Discuss and share their responses to the homework assignment.
2. Learn about two key skills, self-awareness and self-monitoring, that will help them to increase their confidence and motivation.
3. Review and become aware of their progress in the physical activity program (steps, total minutes walking, etc.).
4. Increase their awareness of the physical and mental changes that we experience as a result of being active through positive reflection.
5. Review the physical activity log and discuss how to use it in order to successfully integrate PA into their daily lives.
6. Complete homework: practice self-monitoring and self-awareness skills by continuing to write down physical activity in addition to their daily steps. Begin to identify patterns of behavior. Discuss findings at next group.

#### **Session Procedures:**

- X. Greeting / Review of Outcomes (8 minutes)
  - a. Behavioral Interventionist (BI) greets participants as they arrive and hands out any materials.
  - b. The BI facilitates a brief review of Session 2 key points and the homework assignment (Reflecting on Disability). Participants are asked to share their answers among the group as the leader writes their responses to each statement on the board. The BI will refer to the participants' answers later when discussing self-awareness.
- XI. Self-Awareness and Self-Monitoring (12 minutes)
  - a. Discuss the importance / benefits of self-awareness and self-monitoring in making behavior modifications.
  - b. Discuss some key strategies for learning how to self-monitor (i.e. recording information on exercise logs, looking at pedometer on a regular basis throughout the day, making sure that behavior matches up with goals).
  - c. Discuss the concept of positive rewards and how self-monitoring can help us know when to reward ourselves.
  - d. Review the two tools that the participants are currently using to record their activity (Pedometer and Monthly Physical Activity Log).
- XII. Group Activity: Examining our Progress in the LIFE study
  - a. Provide the participants with progress sheets.
  - b. Discuss the participants' progress with them:
    - i. What do you notice about your steps?

- ii. What do you notice about your physical activity minutes?

XIII. Building on the Idea of Self-Monitoring with Relaxing Reflection (10 minutes)

- a. Discuss with the participants the importance of taking the time to be aware of our accomplishments - not only the accomplishments in our steps and activity minutes but in our daily physical and mental function.
- b. Refer back to the disability assignment and what their responses were.
  - i. Example
    - 1. "Some of you mentioned that you noticed an increase in your ability to get out of your car more easily."
    - 2. "Others mentioned that they noticed that they were feeling more happy and full of spunk."
- c. Then pose the question of "Would you all agree that being aware of these changes is the essence of self-monitoring?"
- d. Let the participants know that you are trying to point out that, in order to continue to stay motivated to increase their activity, they must take the time to reflect on these types of changes as well.
- e. Relaxation / meditation: "One way to bolster our awareness is to practice relaxation techniques like meditation."
- f. Discuss how to perform a meditation session and practice one for approximately five minutes in class. Assist the participants during the meditation sessions in thinking about their changes by posing questions or examples of positive changes.
  - i. i.e. "Have you noticed that it is easier to climb the stairs?"
  - ii. i.e. "Have you been able to resume a certain hobby / interest that you had to quit due to your loss in function?"

XIV. Review Homework Assignment (2 minutes)

- a. Read the assignment and ask the participants to complete it by the next group session.
- b. Answer any questions that the participants may have regarding the assignment and wrap up the session.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets, and progress reports

**Assessment:**

A review of Session # 3 will be performed at the beginning of Session #4.

A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the BI.

## Session 4: Examining Our Feelings: How We Think Can Affect How We Act

### \* Review:

- Discuss how you are doing with your exercise program and with becoming more self-aware of your physical activity.
- Review self-monitoring and discuss any questions / concerns.

### \* Session Objectives:

- Learn about feelings / thoughts and how they influence our behavior, specifically physical activity.
- Assign/discuss homework assignment designed to help you build on the skill of self-monitoring and promote home- / community-based physical activity.

For the past few weeks, you have been recording any physical activity that you performed and how many steps you walked on your **MONTHLY PHYSICAL ACTIVITY LOGS**. This past week, you increased your focus and began to look closely at your activity logs and step counts.

### What was the main purpose of this assignment?

You are correct! The main purpose was to help you all become more aware of what you do or don't do on a regular basis. Let's take some time to reflect on what we found out. Take a look at the numbers from last week on your physical activity log and think about a few things:

- Were you physically active on any of those days?
- How many days were you physically active?
- Did you notice a difference in your # of steps on the days that you were more active versus the days that you were not as active?

As you continue to increase the number of days (frequency) or the number of minutes (duration) that you are physically active, you will see a progressive increase in your pedometer steps. Once you are meeting the study goal of 150 minutes / week of activity you will see your steps level off to a certain number. This will be a number that

Thoughts - the final frontier...

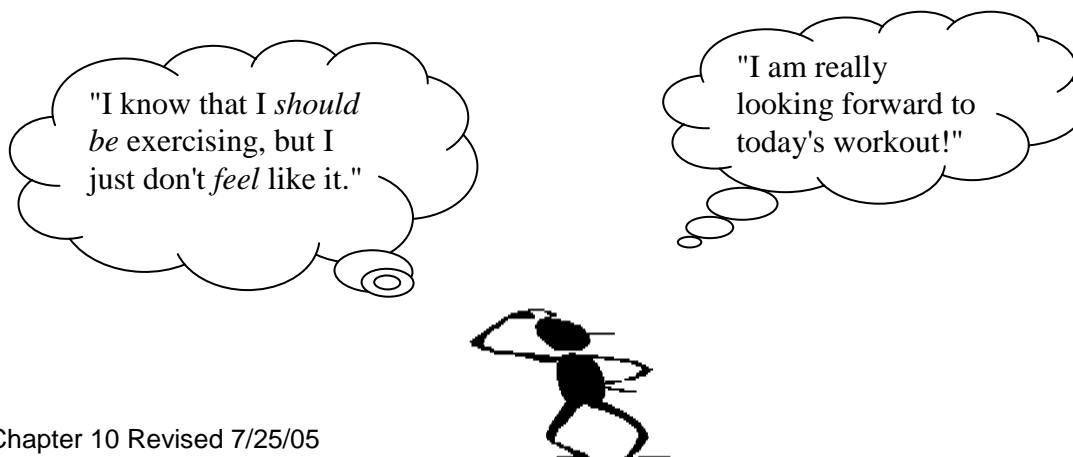


you can then work to maintain over time in order to live a healthy active life with a higher level of physical and psychological function. There is another dimension / skill that we will discuss today, one that will boldly take us where no one has gone before! Today, we are going to start talking about your **thoughts**, and how they relate to exercise.

You may ask “**My thoughts**? What do they have to do with exercise?” In actuality, **thoughts** (or **cognitions** in scholarly parlance) are extremely important to behavior, in part, because we do not realize that we keep a running dialogue with ourselves all day. **In other words, you talk to yourself!** For instance, have you ever said things like this to yourself?



**The mental dialogue that you have with yourself is constant. You also have constant cognitions regarding your physical activity and activity programs. In fact, you may have noticed certain feeling thoughts regarding exercise before, during and after you participate. For example, have you ever said the following things to yourself about physical activity before a session?**



If you have had these thoughts (like we ALL have), you aren't lazy or undisciplined or unable to be active. In fact, you were probably trying to motivate yourself in some way! **So, how you talk to yourself can be a powerful tool or a huge barrier, depending on how you use it!**

We must try to understand how we think to ourselves and how we feel about physical activity in order to increase our motivation for modifying both our thoughts and behaviors.

Therefore, you are now going to start examining how you feel! It may sound "warm and fuzzy," but there is hard evidence that shows that how we think and feel does affect how we act.

**So, let's look to the assignment below for some direction on how to become more aware of our thoughts / feelings regarding exercise.**

**Assignment # 4: Thinking about how we feel about exercise.**

There should be no doubt in your mind now - you know that you have become much more active over the past weeks. You have been progressively increasing the number of minutes that you are physically active and the number of steps that you take by attending the center based exercise sessions three times a week. **CONGRATULATIONS** on making and keeping such a great commitment to your health and well-being!

During our group sessions over the past few weeks, we have discussed several important topics and have begun to learn strategies to use when trying to be more physically active. **Now, we would like you to consider another strategy: focusing in on how you feel about physical activity and exercise as well as on how exercise makes you feel.**

One of the most common thoughts that people have before physical activity is: "I know that I need to exercise, but I just don't FEEL like it today". But then, after they start their physical activity session, they start to think, "Boy, I do feel better now that I have started!" It is precisely these kinds of feelings that can have profound effects on how you act.

**So, being true to the process of self-monitoring, we want you to notice and record how you feel before, during and after physical activity for the next week.**

On the next page, please record your thoughts right before your physical activity, during physical activity and after physical activity. Write down the thoughts you have on the lines provided. It only takes a minute, but it is very important to seeing how our feelings influence our actions.

Next week, we will take this information and build on it when we discuss the link between thoughts, feelings and actions and how we can break the chain of negative thoughts. Good luck -- we hope that you **FEEL** up to the challenge!

**Please continue to monitor your physical activity as well by recording you pedometers steps and any physical activity that you may do on your monthly physical activity log.**

**We will continue to review these logs each week in order to progressively prepare for the transition and maintenance phases.**

### Exercise Feeling Scale

<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>	<b>+5</b>
<b>Very</b>					<b>Neutral</b>					<b>Very</b>
<i>Bad</i>										<i>Good</i>

✚ Each time you exercise, please write down the number that best describes how you feel.

✚ Use this scale to rate your feelings immediately before, during, and immediately after exercise.

✚ Please note your exercise feelings on the next page.

### My Exercise Related Thoughts and Feelings this Week:

Date: \_\_\_\_\_

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Very Bad					Neutral					Very Good

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Very Bad					Neutral					Very Good

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Very Bad					Neutral					Very Good

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

-5	-4	-3	-2	-1	0	+1	+2	+3	+4	+5
Very Bad					Neutral					Very Good

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_



Date: \_\_\_\_\_

<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>	<b>+5</b>
<b>Very</b>					<b>Neutral</b>					<b>Very</b>
<b>Bad</b>										<b>Good</b>

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>	<b>+5</b>
<b>Very</b>					<b>Neutral</b>					<b>Very</b>
<b>Bad</b>										<b>Good</b>

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>	<b>+5</b>
<b>Very</b>					<b>Neutral</b>					<b>Very</b>
<b>Bad</b>										<b>Good</b>

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

Date: \_\_\_\_\_

<b>-5</b>	<b>-4</b>	<b>-3</b>	<b>-2</b>	<b>-1</b>	<b>0</b>	<b>+1</b>	<b>+2</b>	<b>+3</b>	<b>+4</b>	<b>+5</b>
<b>Very</b>					<b>Neutral</b>					<b>Very</b>
<b>Bad</b>										<b>Good</b>

**Before:** \_\_\_\_\_ **During:** \_\_\_\_\_ **After:** \_\_\_\_\_

**Physical Activity Assignment** - In addition to monitoring your thoughts and feelings, we challenge you to try to do some form of structured physical activity at home one time between now and the next group session.

So, in addition to the exercise that you do at the center, you will try one exercise session at home, which will give you four days of exercise!

In doing this you will be one step closer to meeting the **Surgeon General's Recommendation of participating in moderate physical activity on most if not every day of the week (5-7 days) for a total of 30 minutes per day.**

**Please write this extra day of physical activity that you perform in your Monthly Physical Activity Log. Remember to write your exercise feelings for that session as well! We will discuss how you did at the next group session. Good Luck!**

## *Lesson Plan for Session # 4*

### **Title: Examining Our Feelings: How We Think Can Affect How We Act**

#### **Session Objectives: The participants will be able to:**

6. Discuss how they are doing with their exercise program and with becoming more self-aware of their physical activity.
7. Review self-monitoring and discuss any questions / concerns.
8. Learn about feelings / thoughts and how they influence their behavior, specifically physical activity.
9. Complete a homework assignment designed to help them build on the skill of self-monitoring while learning more about their exercise related thoughts / feelings.

#### **Session Procedures:**

- XV. Greeting / Review of Homework (10 minutes)
  - a. Behavioral Interventionist (BI) greets participants as they arrive and hands out any materials.
  - b. The BI facilitates a brief review of Session 3 key points and the homework assignment (Continued Self-Monitoring). Participants are asked to share their observations regarding their physical activity for the past week and how writing their activity down and looking at their pedometers helped them.
- XVI. Thoughts and Feelings (15)
  - a. Introduce the topic of Thoughts and Feelings: “Now, today we are going to discuss another dimension that will assist us in modifying our behavior. You have all recently started to become more aware of your physical activity patterns and how your body responds to exercise. Another important component to be aware of is how you think and feel about exercise and physical activity.
  - b. Discuss thoughts and exercise -- what do my thoughts have to do with exercise?
    - i. “We keep a running dialogue with ourselves all day (give example).”
    - ii. “This constant dialogue can influence our behavior in a positive or negative way.”
    - iii. “You also have constant cognitions regarding your physical activity and activity programs. In fact, you may have noticed certain feeling thoughts regarding exercise before, during and after you participate (give or ask for examples).”

- iv. “So, how you talk to yourself can be a powerful tool or a huge barrier to your exercise program, depending on how you use it!”
- c. Summarize: “We must try to understand how we think to ourselves and how we feel about physical activity in order to increase our motivation for modifying both our thoughts and behaviors.”

XVII. Review Homework Assignment (5 minutes)

- a. Read the assignment and ask the participants to complete it by the next group session.
- b. Answer any questions that the participants may have regarding the assignment and wrap up the session.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 4 will be performed at the beginning of Session #5  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the BI.

## Session 5: Physical activity Related Thoughts and Feelings

### \* **Review:**

- Briefly discuss the session 4 assignment

### \* **Session Objectives:**

- To learn about and discuss self-talk (positive and negative) and exercise / activity
- Discuss as a group how positive self-talk will help to motivate you to participate in regular physical activity



Last week you learned about your thoughts and feelings, two very important components that may influence how successful you are at becoming a healthy, independent, active person. You were given an assignment to monitor your feelings before, during, and after each physical activity session. **What was the main purpose of this assignment?**



**Take a few minutes to ask your self these three questions:**

1. What did you realize about your feelings?
2. Did you see an association between your feelings and your behavior?
3. How do you think that you can learn from this assignment?

**Although it is important to recognize and counteract negative thoughts, it is also important to focus on the positive thoughts that we have throughout the day. Increasing the frequency and the magnitude of those positive thoughts will help you to feel better about yourself, making physical activity more enjoyable for you.**

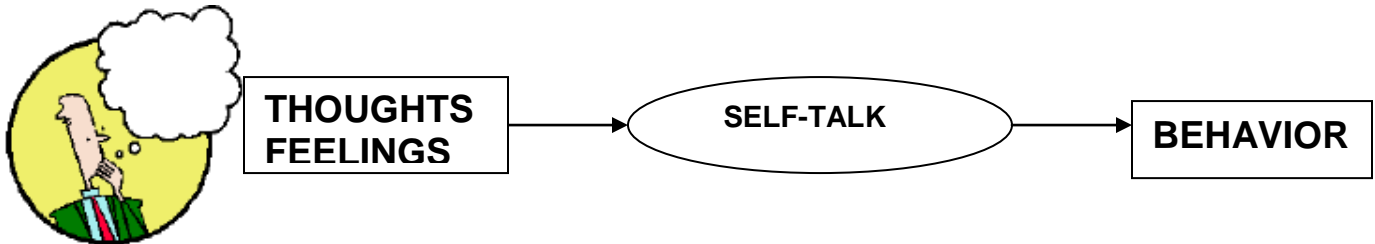
### [The Missing Link: Self-Talk](#)

Knowing that how we feel does indeed affect how we act, or don't act in some cases, what can we do in order to counteract our negative thoughts and increase the frequency and magnitude of our positive thoughts? The answer is: **SELF-TALK!** Self-Talk is the verbal, non-verbal, or under our breath way that we talk to ourselves throughout a normal day.

### Talking Back to Negative Thoughts:

**We have all had negative thoughts at some point in time. Negative thoughts often lead to unhealthy behaviors, which may inhibit you from living a healthy, active lifestyle.**

**Joe**



Let's take a look at Joe's experience with negative thoughts:

**Joe is 74 and, up until recently, was coming to the exercise/group sessions on a regular basis. Last week, he missed consecutive sessions and stopped completing his exercise/activity logs.**

**Thought:** Sunday: "I'm tired of working so hard. This LIFE study is more than I bargained for."

**Result:** On Monday, Joe slept in and did not go to physical activity/group. Joe watched television all day and felt lethargic and tired.

**Thought:** Tuesday: "I really should go to the store and wash my car today, but I am tired and hopefully it will rain in a few days."

**Result:** Joe slept all day and when he woke up it was getting too dark to wash the car. He ran out quickly to grab a hamburger and came back to watch the game. He was up until 12:30 AM.

**Thought:** Wednesday: "I have physical activity class today, but I have not done any of my work, and I have not been active since Sunday. I can't go now; everyone will know that I have failed. I'll go next week when I have had a chance to get back on track."

**Result:** Joe did not return the next week and dropped out of the study. He is now inactive, experiencing various physical symptoms, and has a lower quality of life.

**Let's take a minute to think about where Joe went wrong. What could he have done differently in order to maintain his physical activity / activity program and happiness?**

**Where did Joe go wrong?**

**What are some things that Joe could have done differently?**

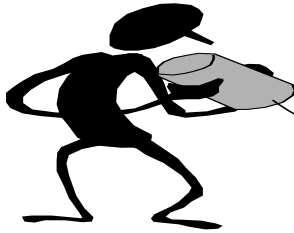
**Summary:**

**Negative thoughts regarding exercise may result from setting goals that are not realistic. If you continue to feel like you are not meeting your physical activity goals, you may need to disengage from those goals and come up with new, more realistic goals.**

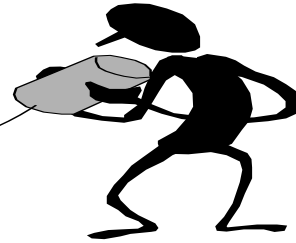
**This is why each time you set a goal, you should take a step back and make sure that the goal is realistic and fits well with your overall abilities. If you ever have a question regarding goal setting, please feel free to ask it during the physical activity session, during group or give your group leader a call.**

**\*Remember, goals can be constantly reassessed and changed based on your needs, etc.**

**Now, let's learn strategies that will help us to talk back to negative thoughts...**



Negative



Positive

### *Strategies to Use When Talking Back to Negative Thoughts*

1. Intercept the negative thought and check to see if it coincides with a goal that may be out of reach. Catch yourself in the process and think, "I am doing it to myself."
2. Shout to yourself internally "STOP!" Try to picture a huge red stop sign in your mind. This is a signal to take a step back and challenge yourself. Only you can change.
3. Now, talk back to that negative thought with a positive thought that relates to an attainable, realistic goal. Let yourself know that it is ok if you wavered from the path to good health. Learn from it and move on with positive thoughts. Reassess the goal to make sure that it is realistic.

Now, let's practice changing our negative thoughts into positive ones...



Here are some examples of different types of negative thoughts and how they can be modified to be positive thoughts related to realistic goals. Are any of these though familiar?

Negative Thought Types	Some positive ways of thinking related to realistic goals.
Good or Bad- “Look at what I did. I didn’t even walk today. I’ll never get in shape.”	Create a Balance in Your Day. “I slipped up one day, tomorrow I will put my shoes by the front door to remind myself to walk”
Excuses- “Its too cold to take a walk today.” “I don’t have the will power or the energy to do this.”	Be Creative-It’s Worth a Try. “I will go walk at the mall today.” “The sooner I go for a walk the more energy I will have. It takes effort to change!”
Should- “I am sick of writing & completing my Physical activity logs. Why do we do this anyway?”	Take Charge-It’s Your Health! “Completing my physical activity/ activity log will me to self-monitor my physical activity behaviors
Not As Good As- “Barry walked five times this week and I only walked three times.”	I Am Not Barry! “This is not a competition. I will progress at a rate that is safe for me and in line with my goals.”
Give Up- “I cannot keep up with all this, I might as well forget it.” “I’ll never be able to be an independent exerciser.”	Reach Out to Support System- “Whenever I feel like giving up, I will call one of my social support buddies and ask for some help

## Assignment # 5- Practicing Self-Talk

### Counteracting Negative Self-Talk

1. In the table below, write down examples of negative thoughts that you have had about physical activity. (Try to identify any goals that may be out of reach.)
2. Say each thought out loud and then say, “STOP!”
3. Talk back to that negative thought by saying, out loud, a positive thought that is related to a goal that you can obtain.

Negative thought and goal that's out of reach.	STOP	Positive thought related to goal that you can reach.
		
		
		

### Bolstering Positive Self-Talk

Below the dashed line, write down four positive thoughts/feelings about your commitment to modify your behavior, how physical activity makes you feel, or what you have to gain physically and mentally from this program.

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My Positive Thoughts- (Cut on the dashed line and put this in your wallet or somewhere you will see it on a daily basis. Look at it when you need a positive reminder about physical activity.)

1. \_\_\_\_\_
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_

### Alternative Techniques for Bolstering Positive Thoughts:

- ➡ Listen to a relaxation tape and picture yourself being a healthy, independent exerciser. Remember to think about your accomplishments and what they mean to you and your health.
- ➡ Take 10 minutes at the beginning of each day to think about how you can help yourself maintain your physical activity program. Think about all of the health benefits that you will receive.
- ➡ Make a tape of your favorite music, music that really invigorates you, and play it before and during physical activity sessions.
- ➡ When you exercise, take time to be aware of the things that we take for granted, like nature, the laughter of children, or peace.

### Before the next exercise/group session answer these questions:

- ✚ **Did you practice talking back to your negative thoughts and bolstering your positive thoughts?**

**YES**

**NO**

- ✚ **What effect did this have on your physical activity / exercise behavior throughout the week?**

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- ✚ **Did you try any of the positive thought bolstering techniques? If yes, how did this make you feel about physical activity / exercise and if no, why not?**

**YES**

**NO**

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**Physical Activity Assignment**-In addition to practicing counteracting negative thoughts and feelings, try to do some form of structured physical activity **one time at home** between now and the next group session. So, in addition to the exercise that you do at the center, you will try one exercise session at home, which will give you four days of exercise!

**Please write this extra day of physical activity that you perform in your Monthly Physical Activity Log. We will discuss how you did at the next group session. Good Luck!**

## *Lesson Plan for Session # 5*

### **Title: Physical activity Related Thoughts and Feelings**

#### **Session Objectives: the participants will be able to:**

1. Review Session the # 4 assignment building on the concept of self-monitoring.
2. Discuss the concept of self-talk and how it can be used to modify behavior.
3. Discuss and learn how to intercept negative thoughts regarding exercise.
4. Review different types of negative thoughts by using examples and give examples of more positive thoughts or ways of thinking.
5. Discuss and complete the next assignment / take questions.

#### **Session Procedures:**

##### XVIII. Greeting / Review

- a. Greet participants and review Session # 4 assignment.
- b. "You were given an assignment last week to monitor your feelings before, during, and after each physical activity session. What was the main purpose of this assignment?"
  - i. "This assignment builds on the concept of self-monitoring (e.g. pedometer and exercise logs)"
  - ii. "Being aware of your thoughts and feelings is another way to self-monitor."
  - iii. "Why do you think that it is important to monitor our thoughts and feelings?"
- c. Continue to discuss the assignment and really probe the participants about:
  - i. What they realized about their feelings?
  - ii. Did they see an association between their feelings and behavior?
  - iii. Touch on how the contrast between how they felt prior to starting LIFE and how changes in their feelings have modified their behavior.
  - iv. Discuss the importance on continuing to monitor their feelings/thoughts as they go through the study

##### XIX. Introduce and discuss the concept of self-talk and how it can be used to modify their behaviors.

- a. Define self-talk-"Everyday dialogue that we have with ourselves..."
- b. Have the participants state every day examples of self-talk and examples self-talk regarding exercise / physical activity.

- XX. Discuss how to intercept negative thoughts (see steps on worksheet).
- XXI. Review different types of negative thoughts by using examples provided in the session # 5 worksheet and have participants give examples of positive thoughts or ways of thinking.
- XXII. Review next assignment / take questions.
- XXIII. PA- you are promoting a home-based frequency of 1 time / week.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 4 will be performed at the beginning of Session #5  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## Session 6: Barriers to Physical activity: The Art of Problem Solving

### \* Review:

- Briefly discuss assignment # 5.
- What techniques did you use to bolster positive thoughts?

### \* Session Objectives:

- To define and discuss barriers and lapses.
- To think of past experiences with barriers/lapses and how can we relate these experiences to becoming active.
- To increase our self-awareness of barriers to becoming active and to learn how to prevent lapses in our program.

When trying to modify your behaviors within the context of your lifestyle, specifically increasing the amount of physical activity / exercise that you participate in, it is possible that you will encounter **BARRIERS** and **LAPSES**. Today, we are going to discuss the key barriers to physical activity participation and how these barriers may lead to lapses in physical activity participation. Remember that, although it is important to be able to identify your own personal barriers to physical activity participation, it is even more important to have a plan in place to counteract those barriers and prevent an extended lapse.

### First let's define what a Barrier is.



A **BARRIER** is something that may impede you from participating in a regular physical activity / exercise plan. Barriers may include things such as the environment, our feelings and thoughts, or daily interruptions such as traffic, a TV show, an unexpected meeting, or even a change in our health. Barriers may oftentimes trigger a lapse in physical activity/ activity participation, making it difficult to be successful.

### Now let's define what a Lapse is.



A **LAPSE** is missing or breaking some objective or scheduled event one to two times. If consistent, this behavior may then lead to an extended lapse, where you completely stop working

towards the goal or attending a scheduled event. If not stopped, you may even begin to spiral down, right back to the old behavior. This may lead to further decrements in your physical and psychological function.

**Your daily routine should begin to include being active!**

Now that we have learned about **BARRIERS** and **LAPSES**, it is important to become more aware of possible barriers to you becoming more physically active. Take a few minutes and think about your daily routines. Think about the past week and try to answer this question:

**What got in the way of my physical activity program this week and what can I do to prevent a Lapse?** (\*If there were no barriers this week brainstorm about possible future barriers and how to overcome them.)

(List the Barriers and Counteractions in the boxes below)

Physical Activity Barriers	Physical Activity Barrier Counteractions



### **Assignment # 6-Examining your last week of Exercise/Activity**

#### **Part 1:**

Use the questions provided below to assess your physical activity / exercise participation for the past week (seven days). Please be as thorough as you can. When you come back to program, we will review your participation and discuss any barriers that you encountered. Good luck!



### Physical Activity / Exercise:

1. How many **days** were you physically active in the past 7 days?
2. How many **times** were you in your RPE range?
3. How **long** were you physically active for each session?
4. What **type** of physical activity did you do?
5. How many **steps** did you complete in the past seven days?
6. What was the **physical activity** that you **enjoyed** the most?



**Brainstorming about Barriers:** (Write down any thoughts here, from the review session in class.)



**Physical Activity Assignment:** In addition to practicing counteracting negative thoughts and feelings, try to do some form of structured physical activity **one time at home** between now and the next group session. So, in addition to the exercise that you do at the center, you will try one exercise session at home, which will give you four days of exercise!

Please write this extra day of physical activity that you perform in your Monthly Physical Activity Log. We will discuss how you did at the next group session. Good Luck!

## **Lesson Plan for Session # 6**

### **Title: Barriers to Physical activity: The Art of Problem Solving**

#### **Session Objectives: the participants will be able to:**

1. Review Session # 5 assignment on practicing positive self-talk.
2. Discuss how negative thoughts can be a barrier to their physical activity and define barriers and lapses and how they relate to physical activity.
3. Discuss and identify past, present of future barriers to being active.
4. Use problem-solving skills during class to help themselves & their peers overcome barriers (interventionist should promote group interaction).
5. Discuss & complete homework assignment # 5 and ask any questions.

#### **Session Procedures:**

##### **XXIV. Greeting / Review**

- a. Greet participants and review Session # 5 assignment.
- b. "You were given an assignment last week to practice intercepting negative thoughts and modify those thoughts to be more positive.
- c. Discuss this assignment and really probe the participants about:
  - v. What negative thoughts did they have regarding exercise in the past week?
  - vi. How did they modify their thoughts or how could they modify them to be more positive?
  - vii. What did they write down for their 4 positive thoughts? (They should post them somewhere in their house to remind them daily of their positive thoughts.)
  - viii. How did recognizing these thoughts and trying to bolster more positive thoughts help them with their physical activity?

##### **XXV. Introduce and discuss barriers and lapses-**

- a. Transition from talking about thoughts into barriers and lapses by stating that: "Negative thoughts can be a barrier to our physical activity program. Sometimes we can be our own worst enemy."
- b. Further define barriers and have participants come up with examples.
- c. \*Remember to state that: "Barriers are not always negative occurrences or something that has to be eliminated from our daily lives" (i.e. caregiving-be empathetic to this)
- d. Discuss how if left unchecked, a barrier can lead to a lapse in our physical activity participation and ultimately a decline in our health.
- e. Define lapse-in doing this discuss that some of the participants may have joined the program due to a lapse in their exercise / activity participation.

- i. Ask the general question of “We have all had lapses at some point-what was the trigger for a past lapse and how did not being active make you feel?”
- f. It is important to note that the sooner you bounce back from a lapse, the easier it will be to resume the physical activity level you were at prior to the lapse.
- g. The behavioral interventionist may want to refer to the “Natural History of Exercise Model” developed by Sallis and Hovell (1990) in order to further explain lapses and how we can resume our exercise after a lapse in our program.

XXVI. Review next assignment / take questions.

XXVII. PA- you are promoting a home-based frequency of 1 time / week.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 5 will be performed at the beginning of Session # 6  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## **Session 7: The Value of Social Support and How to Create it!**

- \* **Review:**

- Briefly discuss assignment #6 -- review activity / barriers.

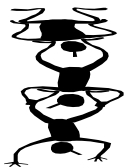
- \* **Session Objectives:**

- To learn about the value of social support and how using this tool properly can be an excellent motivator.
- To learn the steps necessary to build an effective social support system.

### **Greetings, Healthy Active Person!**

So far, we've talked about several tools that you need in order to become a successful exerciser and physically active person. These tools include using the FITT Principle to understand physical activity and exercise recommendations, improving our ability to self-monitor and become more self-aware of our activity behaviors, being aware of our thoughts and feelings and how they influence our activity, and counteracting the destructive effects of barriers.

However, there is another very important factor that is often involved in the success of transitioning into a home-based physical activity program and then maintaining this level of physical activity. The factor that we are talking about is: **Social Support!**



**Social support can be defined as the networks that you utilize regularly to achieve a specific outcome.** Social

support is not talked about often, and sometimes we are not even aware that it can influence our behaviors in a positive or a negative way. Additionally, we often think of social support as something that is passive. For instance, we think, "Either you have it or you don't." Fortunately though, **SOCIAL SUPPORT IS ACTIVE!** You **can** create it! Let's take a look at how it is possible to build a social support network...

First, it is important to sit down and think about what your goals are regarding physical activity. Then, brainstorm about the amount and

type of support that you would like to have available. Talk with friends and family about the LIFE study and how you have decided to take control of your physical function to help prevent disability. Discuss the idea of social support with them and ask them if they would be willing to be part of your social support network. After they agree to help, ask them about how they think they can help you in this process. Let them know what your specific goals are regarding your physical activity. Ultimately, you will surround yourself with the amount of support that is necessary for you to be successful.

### **Let's now brainstorm about how your friends/family may help.**

The **LIFE Physical Activity Program** is an example of a social support network that is helping you become a physically active person. The relationships that you have already built through attending exercise and the group sessions are a great form of support. Unfortunately, this program will not be here forever 😞. So, do you plan to stop exercising and being active when you leave us? **NO WAY, JOSÉ!** Instead, you will learn to identify what social support networks you are already utilizing and learn how to create new ones!

Let's examine what you are already regularly doing for your physical activity programs. For example, do you go to the YMCA or another gym to swim, take aerobics, walk, or lift weights? Do you walk with friends through the neighborhood? Do you walk with your spouse or the family dog? Do you meet a LIFE group member at the mall to go for a walk? If you do any of these things, **THAT'S GREAT!** You already have some strong social support networks established! Now, it will be beneficial for you to try some different types of social support, that you currently don't use, in order to add to your repertoire and increase your success.

### **Assignment #7: Building a Supportive Team!**

Well, by now you've mastered behaviors like wearing your pedometers, recording your activity/FITT information on your physical activity logs, and overcoming barriers! As you know, these behaviors are important in monitoring your activity so that you can become more aware of what you're doing. However, until now, we have not assessed where, with whom, or how you will transition into exercising

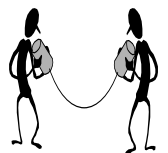
or becoming more active at home or in the community. In other words, we need to start looking at your different forms of social support.



Support from people, places and things (such as equipment) have been shown to be very influential in people's ability to make permanent changes in their lifestyle, especially when it involves physical activity. So, it is important for you to learn how to utilize your existing social networks and create new ones so that you always have options when it comes to exercise.

On the following pages, you will find information and assignments that will help you to effectively build your social support team. Read the sheet that describes how to build a supportive network and start to brainstorm and think about what forms of social support will help you the most and who will provide this support. Then, complete the "Building a Supportive Team" handout based on your needs and goals.

After you have completed this handout, we would like you to try to utilize **one** of the different social networks that you feel will positively influence your physical activity this week. In other words, ask one of your support buddies to go be physical activity with you this week. Or you could go to the mall or the YMCA/YWCA for the first time, or try that old bike in the basement! Walk with another person during exercise at the LIFE study, someone new who you have yet to talk with during exercise. You could also just ask a friend to give you a call to see how your activity is going this week. At the end of this week assess how using this new social support helped you. We will discuss the new experience during the next group session. **Good luck gathering support this week!**



### **Physical Activity Assignment:**

In addition to setting up your social support system, try to do some form of structured physical activity **two times at home or in the community** between now and the next group session. So, in addition to the exercise that you do at the center, you will try two exercise sessions at home, which will give you five days of exercise! Please write these two extra days of physical activity that you perform in your **Monthly Physical Activity Log**. We will discuss how you did at the next group session. Good Luck!

## WHAT KIND OF SUPPORT DO YOU NEED?

### SOMEONE TO LISTEN TO YOU

It's important to be able to share your thoughts and feelings with others. It's also important to have someone who can be open and honest with you. Find one or two people with whom you can share both positive and negative aspects of your life. Find someone who is willing to listen rather than always trying to give you advice. Who will listen to you and avoid being judgmental when you're struggling or get off track?

### SOMEONE TO PARTICIPATE WITH YOU

It's often easier and more enjoyable to make lifestyle changes when others participate with you. Will it help if a family member, friend, or coworker makes some changes with you? Try to find others with similar interests and needs as you (e.g., an exercise or lunch partner who is committed to making healthy changes).

### SOMEONE TO ENCOURAGE YOU

It's easier to make changes when others are encouraging and supporting you. Having someone to encourage you can be helpful when you slip up or don't reach your goals as quickly as you would like. Who can provide the encouragement you need when you get discouraged? It's important to feel that others are proud of your successes. Who will be excited about your success?

### SOMEONE TO PROVIDE KNOWLEDGE

To achieve your goals, you may need to build some relationships with people who have knowledge and experience in areas in which you're trying to make changes. Who can help provide the knowledge and skills you need for success? Talking with someone who has already been successful with weight management or lifestyle change can often be helpful.

### SOMEONE TO ASSIST YOU

Successful change may require you to reorganize how you spend your time. To achieve your goals, you may need others to help you get things done. What help do you need to free up time to exercise, attend a group meeting, or cook a healthy meal? Who can help you around the house or at work so you can make time to for things you need to do to achieve your goals?

### KEYS TO SUCCESSFUL PARTNERSHIPS:

- **COMMUNICATION** is the key to building supportive relationships. Let your family and friends know your thoughts and feelings about how and when they should provide support. They need to hear from you that it is important that you achieve your goals and that you're committed to success.
  - **CHOOSE** good partners — don't expect one person to provide all the support you need. A spouse may not be the right person.
  - **ASK** for the specific help you need and develop a plan together. Never expect others to know how to provide the support you need. Not being specific about your needs is one of the most common roadblocks to obtaining helpful social support.

### ***Building a Supportive Team***

Use the worksheet to help you build your support team. Start by thinking about what goals you need help achieving. Next, determine the specific types of support you will need to achieve your goal. Think about specific family members, friends, and coworkers who can best provide the type of support you need. The final step is to make specific plans to ask for the support you need.

<b>What do I need help with?</b>	<b>What type of support do I want?</b>	<b>Who can help me?</b>	<b>How can they help?</b>	<b>How will I ask for help?</b>
		Name: _____ Phone: _____		
		Name: _____ Phone: _____		
		Name: _____ Phone: _____		
		Name: _____ Phone: _____		
		Name: _____ Phone: _____		



In the space provided below, we want you to write down the social support network you chose to utilize, what you did and what you thought about it (For instance, was it a good or bad experience? Would you do it again?). Take a few minutes and try to think about a new form of social support that you can create this week that could be a viable option for a long time to come. Good Luck!

**Before your physical activity session:**

1. What **NEW** social support system do you want to try to build and use for this week?

Write your new social support here \_\_\_\_\_

2. What do you specifically plan to do for your activity on this day? (Be specific regarding with whom, where and what type of physical activity you plan on doing).

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**After your new social support physical activity session:**

3. Did you complete your physical activity session successfully?

Yes

No

4. What did you think about trying a new form of social support (in terms of positive experiences, negative, ease of access, etc.)?

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5. Do you think that you would try to use this social support network again if you wanted to or needed to in the future?

Yes

No



## *Lesson Plan for Session # 7*

### **Title: The Value of Social Support and How to Create it!**

#### **Session Objectives: the participants will be able to:**

1. Review Session # 6 assignment on barriers and counteracting them.  
Specifically, the participants will discuss their perceived barriers, possible counteractions and then problem solve within the group.
2. Learn and understand that problem solving within the group is a form of social support.
3. Learn the definition of social support and verbalize other forms of social support within the group session.
4. Discuss how to assess need for and gather social support effectively.
5. Discuss homework assignment # 7 and ask any questions.

#### **Session Procedures:**

##### XXVIII. Greeting / Review

- a. Greet participants and review Session # 7 assignment.
- b. "You were given an assignment last week to identify barriers to your physical activity program and to then brainstorm regarding possible counteractions to those barriers."
- c. Discuss the assignment and really probe the participants about:
  - ix. What barriers did they encounter regarding their exercise and physical activity in the past week (s)?
  - x. What are some possible counteractions or ways to overcome these barriers?
  - xi. Problem solve within the group and summarize suggestions.

##### XXIX. Introduce and discuss the concept of Social Support-

- a. Transition into discussing social support by stating: "Today we are going to discuss another tool that will help to motivate you. This tool is social support.
- b. What we just did during group (i.e. problem solving) is a form of social support.
- c. Further define social support (see worksheet).
- d. Ask the group "What are other ways that this group can add to your level of social support?"
- e. Also ask "How can you increase or maintain this form of social support in your daily life so that you can become a successful independent exerciser?"
- f. Have participants give specific examples of social support
  - i. Spouse? What specifically can he/she do to help?

XXX. Discuss guidelines / suggestions on how to identify the amount and type of social support needed and how to then gather that social support.

XXXI. Review next assignment / take questions.

XXXII. PA- you are promoting a home-based frequency of 2 times / week.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 6 will be performed at the beginning of Session # 7

A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## Session 8: Review of Self-Monitoring and Setting Goals for Home-Based Physical Activity

- \* **Review:**

- Briefly discuss assignment #7 -- review social support.

- \* **Session Objectives:**

- To review the skill of self-monitoring and discuss the concept of goal setting.
- To discuss the importance of using all of the skills that we have learned to transition into our home-based activity program.
- To set our home-based exercise/activity goals based on our physical activity logs and progress in the program.

For the past several weeks, you have been wearing a pedometer, recording how many steps you walked each week, writing down the total minutes that you were physical active, and noting what type of physical activity you did on your **WEEKLY HOMEBASED PHYSICAL ACTIVITY LOGS**. You have also been increasing your home-based activity.

### **What was the main purpose of this assignment?**

You are correct! The main purpose was to help you all become more aware of what you do or don't do on a regular basis and to help you increase your physical activity. Let's take some time to reflect on what we found out. Take a look at the numbers from the past few weeks on your physical activity logs and think about a few things:

- On average, how many days were you physically active?
- How have your pedometer steps changed since the beginning?
- Did you notice a difference in your # of steps on the days that you were more active versus the days that you were not as active?
- How have your total minutes of activity changed since the beginning?
- Are you on the right path? Are you meeting the LIFE study goal of 150 minutes per week?
- What days seem to be the best days for you to get in your activity?

## Setting Your First Short-Term, Challenging, Yet Achievable Goal

Does this sound familiar? "For my New Year resolution, I'd like to lose weight, stop smoking, get healthy..." At one time or another, we have all fallen prey to making a worthwhile resolution, or objective, only to have it not become a reality. So, is the answer to stop setting these aspirations and stop striving for what we want? NO!

Today, you will take the tools that you have been using (**the LIFE Home Based Physical Activity Log and pedometer**), and the skills that you have learned (**self-monitoring and self-awareness, overcoming barriers, increasing social support**) to set your first achievable home-based goal.



But first, what is a **goal**? (Hint: it's kind of related, but this **isn't exactly** what we mean😊)

**A goal is an end toward which we direct our effort to attain.**

There are two types of goals that we shall discuss:

**Long-term goals** (such as losing weight or reducing your blood pressure)

**Short-term goals** (exercising three times this week)

Long-term goals are worthwhile, but they are often too broad and general, and it is hard to make a specific action plan to achieve them.

So, how can you make these long-term goals more achievable? You got it! By setting a series of short-term, specific goals that you can work on each week to help you achieve the long-term goal.

Another way to view this relationship is to think of the acronym **GO** (for goals and objectives):

**Goals:** the end result of completing our objectives

**Objectives:** directions that we give ourselves (our plans of action) in order to attain a goal

How can setting short-term goals increase your **motivation** and **confidence** for being physically active?

Here are some aspects of effective short-term goal setting. An effective goal should be:

<b>R</b> ealistic	The goal should be reasonable, not excessive or extreme.
<b>E</b> valuative	You should be able to determine whether you met your goal.
<b>A</b> ttainable	You should be able to accomplish your goal with the right steps.
<b>C</b> hallenging	Your goal should require you to work for it!
<b>T</b> ime-based	For right now, your goal should be no longer than a week (this interval may increase as you become more experienced).

**It is very important to remember that your goals can be flexible -- you should be able to revise your goals so that you can avoid failure.**

Our next assignment takes you through the process of setting your first short-term goal in relation to your physical activity habits. Let's take a peek.

### **Assignment #8: Setting your first short-term goal and Physical Activity Assignment:**

Assignment #8 includes setting a specific short-term goal that will help you to increase your home-based activity. You will try to achieve this goal over the next week. To be more specific, since we will only meet two times next week to exercise as a group, you will focus in on setting a goal/plan to get in at least two more exercise/physical activity sessions at home over the next week. For example:

**John has been exercising at LIFE for 8 weeks now. He is currently walking for about 40 minutes each session and doing these sessions three times a week at the LIFE program. John is now going to transition to performing some home-based exercise, as the LIFE program will now meet two times a week. Therefore, John has decided to walk twice a week. One day this week, he will walk 20 minutes in the morning and 20 minutes at night. Another day, John will go to the mall with his friend and walk for 30-40 minutes. He will also begin to do his strength and balance training at home. He will record this in his PA log and review his progress at the end of the week.**

As you continue on in the LIFE study, you will slowly progress into a maintenance phase where you will come to exercise at the LIFE study only once a week. Therefore, you will need to continually re-evaluate and modify your goals based on your progress and ultimately be responsible for maintaining the changes that you have made in a home-community based environment. Here are some examples of goals that other people have set during a transition/maintenance phase. Try to pick out which component of the **FITT** principle they increased.

- Before LIFE, Betty wasn't walking at all. Currently, she is walking the one or two days that she is in program. Therefore she is not getting in the total minutes (150) that she should be. For this week, Betty has set a goal to walk 4 days. This means that she will strive to be physical active her own for two days this week.
- Russ walks for 20 minutes each time he exercises in program. However, he has only been walking 5 or 10 minutes at home. This week, Russ set a goal to walk for 20 total minutes per session each time when he walks at home (with a break, of course!).
- Maggie was always a stroller (slow walker) when she walked before coming into the LIFE program. But, now that she knows about perceived exertion (RPE) from LIFE, this week Maggie is going to increase the intensity of her walking from an 11 to a 12.
- Patrice currently exercises 3 times a week for 30 minutes a session (once at LIFE and twice at home). However, for the rest of the day, she does not perform much overall activity. But, now that she understands the importance of physical activity, she is going to park her car farther away from the store so that she can increase her activity. She will also take the stairs in the mall instead of using the escalator.

In setting your goal for this week, you may choose to increase any component of the FITT principle. Just remember to never exceed an RPE of 13 when walking or doing other aerobic activities. Also, NEVER go to the point of pain. Take a few minutes now and think of the following things before you set your first goal:

- What is one of your most important long-term goals? (You might want to review Assignment #1 to think about this).
- What is your biggest weakness right now in terms of your physical activity program? Look at your physical activity logs from this past week. Is it how many days you exercise, how long your physical activity sessions are, or your intensity of exercise?
- What is the first thing that you want to work on improving right now: your time, your days or your intensity?

Please fill out the entire goal sheet below. Be as thorough as you can. When you come back to program, we will review how well your first goal setting experience went. Good luck!

**1. My long-term physical activity goal is to:**

---

**2. My Physical Activity Goals for this week include:**

(A) Frequency: \_\_\_\_\_

(B) Intensity: \_\_\_\_\_

(C) Time: \_\_\_\_\_

(D) Type: \_\_\_\_\_

**3. What day(s) do I plan to be physically active at home?**

---

**4. How many minutes will I be physically active at home?**

---

**5. Specifically, I plan to achieve this goal by (what day):**

---

**6. Where do I plan to be physically active for my home-community based program?**

---



## ***Lesson Plan for Session # 8***

### **Title: Review of Self-Monitoring and Setting Goals for Home-Based Physical Activity.**

#### **Session Objectives: the participants will be able to:**

1. Review Session # 7 assignment on identifying the need for and gathering social support. Specifically, discuss the social support guidelines and what they decided to do to gather their social support needs.
2. Review self-monitoring and state within the group what they have noticed regarding their physical activity over the past few weeks.
3. Learn how to set effective goals for home based physical activity program.
4. Discuss the importance of continual reassessment of goals and how to reward themselves when a goal is achieved.
5. Discuss homework assignment # 8 and ask any questions.

#### **Session Procedures:**

##### XXXIII. Greeting / Review

- a. Greet participants and review social support activity / homework.
- b. "You were given an assignment last week to identify the amount and type of social support that you would need in order to have continued success with your physical activity program."
- c. Really probe the participants about what they decided regarding their social support system (review their homework handout that they were to complete)
- d. Summarize the importance of social support and problem solve within the group, especially if a participant was unable to come up with a social support plan. (\*Remember to be empathetic to the participants' social support needs / concerns)

##### XXXIV. Review self-monitoring and discuss the concept of goal setting-

- a. Transition from social support by stating that: "Social support is going to be very important as we move into the transition phase starting next week. Before we do that, let's review the concept of self-monitoring and discuss what you have learned regarding your physical activity levels. We will then discuss how this knowledge will help you to set effective and realistic goals."
- b. Have a group discussion of how their self-monitoring has been going and what the participants are currently doing regarding their home-based program:
  - i. FITT
  - ii. Where are they at regarding the LIFE study goal of 150 min total / week?
  - iii. Barriers?

- iv. What are some benefits that they have already achieved and how has that motivated them to stay active?
  - c. Introduce the concept of goal setting.
  - d. Define short-term and long-term goals and the aspects of an effective goal REACT acronym.
  - e. Highlight the importance of setting goals that the participants can commit to. They should feel pretty confident that they can achieve the goal.
- XXXV. Review next assignment: discuss how to set their first short term goal and take questions.
- XXXVI. Physical Activity assignment (\*End of adoption phase this week)
- a. You are promoting a home-based frequency of 2 times / week.
  - b. Remember to highly promote their home-based activity and how important it is that they do at least one home-based sessions in order to get in 3 x / week.
- XXXVII. Give the participants their ankle wts. & any required handouts.
- XXXVIII. Provide the participants with a packet on all the exercise facilities in your area including YMCAs, YWCAs, churches, parks and rec. Make sure they review it, as you should go over it during the next group and ask them if it was helpful, etc.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 7 will be performed at the beginning of Session # 8  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## Session 9: Evaluating Your First Goal Setting Experience & Building Confidence in Setting Weekly Goals

### \* Review:

- Discuss assignment #8 -- setting your 1<sup>st</sup> goal.
- Talk with the group about this experience.

### \* Session Objectives:

- To review the skill of goal setting and discuss how we will continue to set goals throughout the transition and maintenance phases.
- Review the goal / activity plan sheet and assignment # 8.

Last week, you set your first short-term, achievable goal. Today, we will examine how your first goal setting experience went and the factors that affected whether you achieved your goal. Then, you will set your first **FULL WEEK GOAL** using your goal/activity plan sheet.

Every time you set a goal for yourself, try to reach it, and succeed, you are one step closer to being a regularly active person. You will continue to build confidence that you can actually be an independent exerciser! But, there are a few myths about goal setting that we need to address here.

**First myth:** We only need to self-monitor and set goals once - then we'll have it down pat. We will not need to continue doing this after the group sessions are finished.

**THIS IS FALSE:** Self-monitoring and goal setting are ongoing processes. It will become easier and more natural, but they still need to be done on a regular basis to maximize results.

**Second myth:** Once we set a goal, we must continue to increase what we do every week, making leaps and bounds. There is no such thing as too much exercise / activity.

**FALSE!** One of the worst and most discouraging things you can do is to set your goals too high at first, causing you to either injure yourself or fail to reach your goal. Remember, a good goal is challenging but is also realistic and attainable. You should strive to reach and maintain the study goal of 150 total physical activity minutes per week and do not exceed an RPE of 13 when walking.

So, you may ask, how can I make sure that I'm setting the right kinds of goals? We're glad you asked that question! One way to determine an appropriate goal is to consider your experience level. Let's look at the three phases of exercise:

**Adoption:** At this phase, you were just starting to get used to physical activity and learning how to do it effectively and safely. You were mostly exercising at the center and you were becoming more comfortable with your body's response to exercise, while slowly increasing your activity participation. You also learned important balance and strengthening exercises. Near the end of this phase you began to practice home-based exercise sessions.

**Center based activity:**

Weeks 1-8: exercise 3 x / week for up to 40 minutes

**Home based activity:**

Weeks 4-6: do 1 home based exercise session / week

Weeks 7-8: do 2 home based exercise sessions / week

**Transition:** You have just entered this phase! Over the next several weeks you will increase or maintain your physical activity level. You will participate in physical activity AT HOME or IN THE COMMUNITY and find out what types of home physical activities are best for you. You will continue to set goals for yourself during this phase. Some weeks, you will increase FITT principle components; some weeks, you will reinforce the physical activity patterns you've established. This phase will last approximately 16 weeks.

**Center based activity:**

Weeks 9-24: exercise 2 x / week for up to 40 minutes

**Home based activity:**

Weeks 9-24: do 3 home based exercise sessions / week

**Maintenance:** At this phase, you will simply maintain all of the gains that you have made! You consistently meet your goals and are satisfied with your attainment. You will fully understand the value of a regular physical activity program and healthy lifestyle, and will work to keep the changes that you've made.

**Center based activity:**

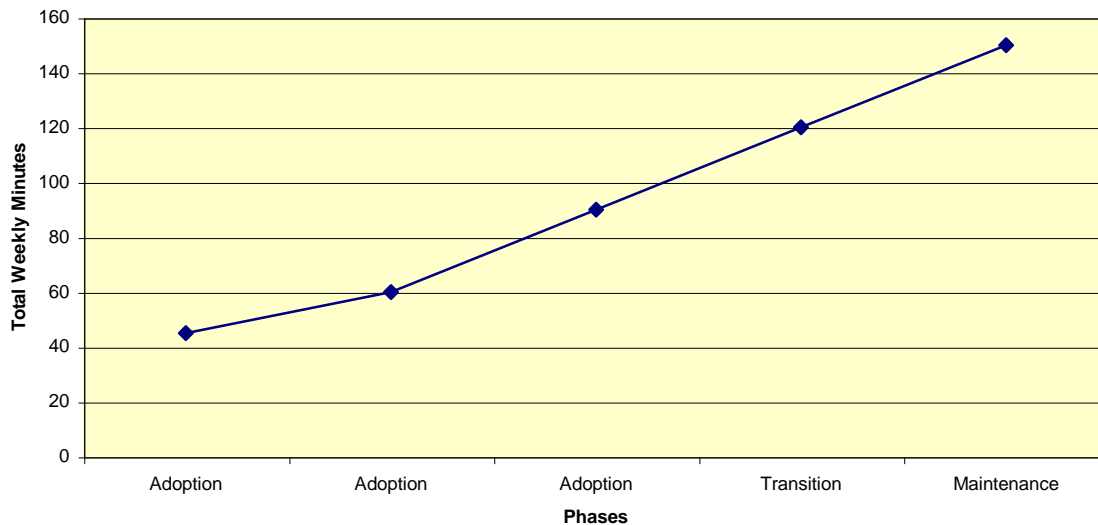
Weeks 25 and on: exercise 1 x week for up to 40 minutes

**Home based activity:**

Weeks 25 and on: do 4 home based exercise sessions / week

Here's an example (see graph below) of how you might have progressively increased your total minutes and will continue to increase your total minutes over time. Please note that this is just an example and the values may be different for each participant in the LIFE study, as everyone starts out at a different level of function and experience with exercise / activity.

Sample of Possible Increase in Minutes Throughout the Three Phases



**Before you set your first week goal, here are some pointers to keep in mind:**

- Goals are not set in stone and can be revised or adjusted any time.
- Don't set goals that will only set you up for failure -- think "realistically."
- Always keep in mind your long-term goals but set short-term goals to attain them.
- If you don't reach a goal, don't be upset. Just find out why things went wrong so that we can fix them together.
- Reward yourself when you achieve your long- and short-term goals.
- **Some positive rewards may include the following:**
  - Go to the movies / theater
  - Buy a gift for yourself
  - Take a long-awaited trip / vacation
  - Meet an old friend for lunch
  - Go for a picnic / walk in the park.

### Group Activity: Examining your first short-term goal setting experience

One of the best ways to keep yourself focused and determined as an active person is to check up on yourself regularly and see the changes you've made in your activity behaviors.

**The purpose of this group activity is to examine the first short-term goal you set, how well you did, and why you did or did not reach your goal.**

1. What was your short-term goal / plan?
2. Did you meet your short-term goal / plan?      Yes      No

Whether you reached your goal or not, it is important to think about **WHY** you did or did not reach it. The reason we do this is to help us see if you are heading in the right direction with your goal setting and plans of action. Take a minute to think about WHY you did or did not reach your goal, then write this down in the spaces provided. (Feel free to write in a list, statement, or sentence format -- whatever you are most comfortable with.)

Why I did or did not reach my goal:

### Assignment #9: Setting your first weekly physical activity goal using the goal / planning sheet

You have been working on changing your lifestyle for several weeks now, and you have developed a handful of skills that will help you to continue on. You are all doing a great job. Now, you will keep practicing these skills in order to stay active for the rest of your life.

Your assignment for the next week is to set a goal for yourself using the weekly physical activity goal / planning sheet. Remember, the plan you set for yourself should be specific. Please write down what type of physical activity you plan to do each day, the total time (in minutes) that you plan to do the activity, and the time of day that you plan on completing this. Finally, throughout the week, keep track of whether or not you completed the exercise / activity by writing yes or no in the section titled "Accomplished". Good luck, and we will see you at session # 10 to review your progress and continue to plan for continued success during the transition and maintenance phases!

**Weekly Physical Activity Goal / Plan Sheet**    **Date:** \_\_\_\_\_

**In general, my goal is to:** \_\_\_\_\_

Day	What I will do	When	Minutes	Accomplished? (Yes / No)
Monday				
Tuesday				
Wednesday				
Thursday				
Friday				
Saturday				
Sunday				

### **Physical Activity Assignment:**

Remember that the goal for this week is to try to do some form of structured physical activity **three times at home or in the community** between now and the next group session.

So, in addition to the exercise that you do at the center, you will try three exercise sessions at home, which will give you five days of exercise!

Please write these three extra days of physical activity that you perform in your **Monthly Physical Activity Log along with the strength training and balance information**. We will discuss how you did at the next group session. Good Luck!



## *Lesson Plan for Session # 9*

**Title:** Evaluating Your First Goal Setting Experience & Building Confidence in Setting Weekly Goals

**Session Objectives: the participants will be able to:**

1. Review Session # 8 assignment on setting their first short-term home-based physical activity goals.
2. Learn how to goal set throughout the transition and maintenance phases of the LIFE study and beyond.
3. Review their goal setting experience and discuss how to set their first weekly physical activity goal using their physical activity goal sheets.
4. Discuss homework assignment # 9 and answer any questions.

**Session Procedures:**

- XXXIX. Greeting / Review (8 minutes)
- a. Greet participants and review assignment on setting their first short-term goal.
  - b. “You were given an assignment last week to set your first short-term home based physical activity goal.
- XL. Spend a good bit of time on reviewing how the participant’s first goal setting experience went:
- a. What was their goal? FITT?
  - b. Where are they planning to exercise? Refer back to the list of possible community sites / facilities.
  - c. Did they find this helpful? Are there any other suggestions / additions?
  - d. What barriers did the participants encounter?
  - e. Problem solve in class and verbally reward participants.
- XLI. Discuss a few more key points regarding goal setting
- a. Goal setting is a continuous process.
  - b. Set goals at a slow yet steady progression. You do not always have to progress, maintaining your activity is a positive thing too.
  - c. If you set goals too high, then disengage from those goals and modify them to be more realistic.
  - d. Reward yourself. We will continue to discuss this and how rewarding yourself can increase your motivation.
  - e. Note that the participants can review the expectations for the three phases of physical activity (adoption, transition, & maintenance) so that they understand where they should be at during each phase.
- XLII. Review next assignment: discuss how to set their first weekly goal using their physical activity goal sheet.

- XLIII. Physical Activity assignment (Participants have started the transition phase this week.)
- a. You are now promoting a home-based frequency of 3 times / week.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 8 will be performed at the beginning of Session # 9  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## Session 10: Transitioning: using the skills we know

- \* **Review:**

- Briefly discuss assignment 9.

- \* **Session Objectives:**

- To review the skills that you have learned and practiced throughout the LIFE study and the importance of continuing to use them with your home-based program.
- To write a new weekly goal / plan for physical activity.

**Congratulations!** You are well on your way to becoming a successful, independent exerciser. Throughout the past few months, you have learned how to modify your behavior through attending the group physical activity and behavior modification classes, and you are now in control of your own physical activity program.

You are armed with the **key skills** that will allow you to maintain a lifelong commitment to remaining active and healthy. Let's review some of the skills that you have acquired.

### Skills to help me maintain my physical activity program:

- ✚ **Following the FITT Principle**
- ✚ **Self-Monitoring and Self-Awareness**
- ✚ **Bolstering positive thoughts / feelings and counteracting negative thoughts / feelings**
- ✚ **Recognizing Barriers and Counteracting Lapses**
- ✚ **Goal Setting for the home-based physical activity program**
- ✚ **Utilizing your social support system to improve success**
- ✚ **Most of all, becoming self-sufficient in saying “yes” to a happy, healthy, active lifestyle!**



Today we are going to focus on your transition from Center Based Physical activity to Home- / Community-Based Exercise. Let's discuss this as a group and map out some suggestions for making a smooth and successful transition. Please try to answer the following questions:

- What skills influenced you the most in learning how to modify your behaviors and become an independent exerciser?
- What skills should we focus on to make the transition a smooth one?
- What concerns do you have about making the transition?



Now, let's put your brainstorming to work. Let's go over how you will make the transition a smooth and successful one. Let's think about the **FITT Principle** and home based exercise. Let's identify some recommendations and identify some changes that may occur.

**Frequency:** As you transition to home / community based physical activity, the frequency that you are physically active at the center will be reduced, and the frequency that you are physically active at home or in the community will be increased. We recommend that you strive to be active **5 to 7 days** of the week.

**Intensity:** As you transition to home / community based exercise, the walking intensity should remain the same: an **RPE** from **11 to 13**.

**Time:** The time at which you are physically active at the center versus at home may differ, as you will be integrating physical activity into your daily life. We recommend that you do a total of **150-210 minutes** of physical activity per week. The duration that you are active for each session will depend on your frequency. (You can do sessions intermittently during the day as long as each bout is at least 10 minutes in duration.)

**Type:** The type of physical activity may change if you have physical activity equipment such as a bike or a treadmill, but it should remain aerobic in nature, using large muscle groups to perform repetitive activity. We recommend that you try to use walking as your primary form of aerobic activity as much as possible. Be creative and remember that safety is first.

## Warm up and Cool down:

Remember that, although we will not be there to lead you in a warm-up and cool-down session, they are both strongly recommended and should be performed at the appropriate times during each physical activity session. The warm-up and cool-down should consist of walking or moving at a slow pace (**RPE of 7-10**) prior to or after you walk / exercise in your RPE range of 11-13. Don't forget to stretch after you do your strength training.

## Strength Training and Balance Exercises:

You should continue to perform the strength training and balance exercises that you have learned and practiced throughout the **LIFE** study. It is these exercises, in addition to the walking, that will help you to maintain your physical function as you age. Therefore, you should strive to perform these exercises at least three times per week throughout your transition and maintenance phases. Maintain an **RPE of 15-16** when strength training.

## In general don't forget to be safe! KEY: Listen to your body!

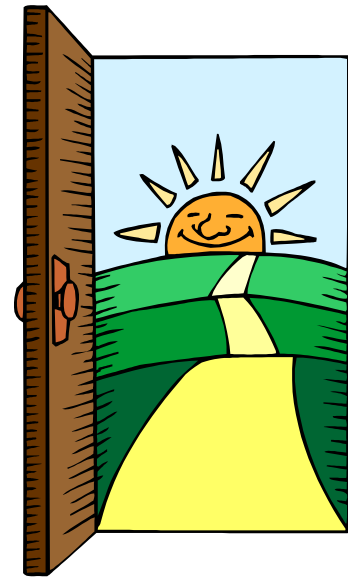
- Report your symptoms to your physical activity leader and physician.
- Don't be physically active over the prescribed RPE limit.
- If you are not feeling well (i.e. flu, fatigue, virus, infection, fever), do not exercise! Call your physician and let us know if you will not be exercising for an extended period of time.
- Take all of your medications as prescribed (i.e. correct dosage, frequency, and time of day are very important).
- If you see any changes in your health, symptoms, or overall well-being, contact your physical activity leader and your physician immediately.
- Perform physical activity in a safe and healthy environment.
- Exercising with a buddy is highly recommended.



On behalf of the LIFE program staff, we congratulate you on becoming an independent exerciser. You have modified many health behaviors over the past few months and you are now well on your way to maintaining these changes! Keep up the good work; it's for your health and happiness!

Remember, the door is open now for a better and brighter level of quality of life. Continue to walk the right path regarding your physical activity program!

If you feel yourself falling behind with your exercise / activity, please feel free to call a staff member or a classmate. We will be happy to assist you in developing further strategies to get you back on track.



### Physical Activity Assignment:

Remember that the goal for weeks 9-24 is to try to do some form of structured physical activity at least **three times per week, at home or in the community**. So, in addition to the exercise that you do at the center, you will try three exercise sessions at home, which will give you five days of exercise!

Please write these three extra days of physical activity that you perform in your **Monthly Physical Activity Log along with the strength training and balance information**. We will continue to discuss how you are doing during monthly phone contacts. Good Luck!

**Weekly Physical Activity Goal / Plan Sheet**    **Date:** \_\_\_\_\_

**In general my goal is to:** \_\_\_\_\_

<b>Day</b>	<b>What I will do</b>	<b>When</b>	<b>Minutes</b>	<b>Accomplished? (Yes / No)</b>
<b>Monday</b>				
<b>Tuesday</b>				
<b>Wednesday</b>				
<b>Thursday</b>				
<b>Friday</b>				
<b>Saturday</b>				
<b>Sunday</b>				

**\*Remember to assess your goals each week throughout the transition phase using the goal sheets provided. This will allow you to see if you were able to meet your goals and make modifications as needed. We will refer back to these goal sheets at the periodic Booster Group Sessions.**

**Keep up the great work!**

**Sincerely,**

**The LIFE study staff**

## **RATING OF PERCEIVED EXERTION (RPE) SCALE**

<b>6</b>		
<b>7</b>	<b>VERY, VERY LIGHT</b>	<b>WARM UP/ COOL DOWN</b>
<b>8</b>		
<b>9</b>	<b>VERY LIGHT</b>	
<b>10</b>		
<b>11</b>	<b>FAIRLY LIGHT</b>	<b>WALK</b>
<b>12</b>		
<b>13</b>	<b>SOMEWHAT HARD</b>	
<b>14</b>		
<b>15</b>	<b>HARD</b>	<b>STRENGTH</b>
<b>16</b>		
<b>17</b>	<b>VERY HARD</b>	
<b>18</b>		
<b>19</b>	<b>VERY, VERY HARD</b>	
<b>20</b>		



## EXAMPLE OF A TYPICAL WEEKLY EXERCISE ROUTINE

Day	Monday	Tuesday <i>Life Program</i> 2:45-4:30 pm	Wednesday	Thursday <i>Life Program</i> 2:45-4:30 pm	Friday	Saturday	Sunday
Exercise Routine	Exercise at Home: Warm up Walking Cool down  Stretching  Balance	Exercise at Center: Warm up Walking Cool down Strength Stretching  Balance	Exercise at Home: Warm up Walking Cool down  Stretching  Balance	Exercise at Center: Warm up Walking Cool down Strength Stretching  Balance	Exercise at Home: Warm up Walking Cool down  Stretching  Balance	Exercise at Home: Warm up Walking Cool down Strength Stretching	Rest

## *Lesson Plan for Session # 10*

**Title:** Transitioning: using the skills we know.

**Session Objectives:** the participants will be able to:

5. Review Session # 9 assignment on setting weekly physical activity goals.
6. Discuss the successes of the group (Interventionist should thank the group members for such a positive and helpful group environment).
7. Review strategies that have been helpful in increasing their physical activity levels. Discuss the importance of continuing to use these tools.
8. Discuss fears / concerns regarding the termination of the behavioral sessions. (Interventionist should point out the use of “booster” sessions during the maintenance phase or as needed to help prevent lapses and discuss any concerns).
9. Review the purpose of the weekly goal sheets and discuss how they should be used throughout the transition phase.

**Session Procedures:**

### XLIV. Greeting / Review

- a. Greet participants and discuss the successes of the group and thank group members for such a positive and helpful group environment.
- b. Review assignment on setting their first weekly goal using the goal sheets. Ask, “How did using this goal sheet help you to meet your goals?”

### XLV. Briefly review other tools / strategies that have been helpful in increasing physical activity levels.

- a. Have a list of the strategies up on the board and refer to this list as a “tool box” filled with tools that will help them to remain active.
- b. Discuss the importance of continuing to use these tools throughout all of the phases and beyond.

### XLVI. Discuss the participants’ fears / concerns regarding the termination of the behavioral sessions.

- a. Point out the use of “booster” sessions during the maintenance phase or as needed to help prevent lapses and discuss any concerns.
- b. Discuss the importance of making good use of their interactions during exercise sessions at the center.
- c. “This will be the time to keep your eyes and ears open. Remember that we want to continue to use good listening skills with each other and help your fellow group members when needed.”

### XLVII. Review next assignment: discuss how to continue to set their weekly goals using their goal sheets throughout the rest of the transition phase.

- a. Interventionists should provide each participant with enough weekly goal sheets for the entire transition phase (approximately 14 sheets).
- b. State that “Use of the goal sheets is recommended during the transition phase, but it is not mandatory.”
- c. “Remember, you want to use the tools that help you to trigger physical activity. In other words, use what works best to help keep you motivated!”
- d. Take any questions regarding the use of the physical activity goal sheets.

XLVIII. Physical Activity assignment (Participants are two weeks into the transition phase.)

- a. You are promoting a home-based frequency of 3 times / week throughout the transition phase.
- b. Remind the participants that you will continue to perform monthly phone contacts throughout the transition and maintenance phases of the stuffy to fully discuss their progress.

**Materials / Equipment:**

Pencils, note cards, dry erase board and markers, session worksheets

**Assessment:**

A review of Session # 9 will be performed at the beginning of Session # 10  
A group discussion to summarize the participants' responses to their homework assignment will be facilitated by the group leader.

## **VII. Outlines for Physical Activity Lectures**

### **THE FITT PRINCIPLE**

The FITT principle was developed to provide guidelines for exercise prescription. FITT is an acronym for Frequency, Intensity, Time, and Type. These are the parameters that you will be recording in your LIFE Physical Activity Logs. The following guidelines for LIFE study provide a general weekly goal regarding the exercise 'dose'. The guidelines are consistent with the public health message from the Surgeon General's report that moderate physical activity should be performed for 30 minutes on most if not all days of the week (150-210 total minutes). Following these guidelines will help you gain the most from physical activity sessions at both, the center as well as your home.

#### ***FREQUENCY (HOW OFTEN?)***

- It is recommended that you perform the aerobic (walking), strength, and balance activities at least 3 times per week.
- You can increase frequency gradually, as tolerated

#### ***INTENSITY (HOW MUCH?)***

- The main intensity parameter that you will use is the Rating of Perceived Exertion (RPE).
- Try to maintain a RPE of 11-13 for aerobic activity, like walking
- For strength training, maintain a RPE of about 15-16

#### ***TIME (HOW LONG?)***

- Gradually increase the total period of time that you perform the activity for based on how you feel.
- A goal of about 30-50 minutes of aerobic physical activity is recommended.
- You may choose to perform your physical activity in short bouts, such as taking five 10-minute walks if that suits you better.

### ***TYPE (WHAT KIND?)***

- Perform aerobic activities that use large muscle groups like brisk walking, swimming, or cycling.
- Also perform activities provided to you for strength and balance.

Assignment: Using the FITT PRINCIPLE to improve self-monitoring of your present physical activity participation.

Today we learned about the **FITT PRINCIPLE** and how this principle can help us to become more deliberate in our physical activity and overall activity participation. To practice using this principle, you will now begin to record the parameters on your physical activity log for the next week of exercise. Use the following chart to remind you what parameters go with what part of the **FITT PRINCIPLE**.

<b>FREQUENCY</b>	Write down the date for each day of the week. Put an X on the days that you do not do any exercise.
<b>INTENSITY</b>	Write down your physical activity Rate of Perceived Exertion (RPE) two times during your physical activity session in the correct boxes "RPE#1" & "RPE#2."
<b>TIME</b>	Write down how many total minutes of physical activity you did that day in the box labeled "Total Minutes."
<b>TYPE</b>	The main form of physical activity in this program will be walking. If you prefer other types of physical activity such as swimming, biking, or aerobics classes, please talk with your physical activity leader for recommendations. Please record the type of physical activity in the box labeled "Type of Exercise".

## ***Exercise and Physical Activity: What is the Difference?***

**Exercise:** A type of physical activity that requires planned, structured, and repetitive bodily movement using large muscle groups, in which you are working towards improving or maintaining one or more components of physical fitness (cardiovascular endurance, muscular strength/endurance, musculoskeletal flexibility, or body composition). When you exercise, you work at a specific intensity for a pre-planned distance or time.

**Physical Activity:** Any bodily movement produced by skeletal muscles that requires expenditure of energy and produces progressive health benefits. Physical activity is less structured than exercise, it varies in intensity levels, may be less constant, and may be performed in multiple bouts throughout the day.

### **Exercise Versus Physical Activity: How to Get the Most Out of Every Day (Cont'd)**

#### **The 1996 Surgeon General's Report on Physical Activity:**

- More than 60% of adults do not achieve the recommended amount of physical activity, and 25% are not active at all.
- Regular moderate physical activity can prevent premature death, unnecessary illness, and disability.
- Moderate PA = any activity that uses 150 calories of energy per day or 1000 calories per week.



### **FITT Physical Activity Recommendations:**

<b><i>FITT:</i></b>	<b><i>WHAT TO DO:</i></b>
<b>FREQUENCY</b> (How often you should be active)	<ul style="list-style-type: none"><li>• Participate in moderate activity on most if not every day of the week.</li><li>• Increase frequency, as tolerated.</li></ul>
<b>INTENSITY</b> (How you are working while being active)	<ul style="list-style-type: none"><li>• An intensity of brisk walking is preferred.</li><li>• Intensity will vary for physical activity, although you do not have to be in your RPE range to benefit from PA, it is best to be active with the intent to be in your RPE range.</li></ul>
<b>TIME</b> (How long you are active)	<ul style="list-style-type: none"><li>• Stay active for at least 10-minutes without taking a break, with a goal of accumulating 30-40 minutes of total activity / day.</li><li>• Short bouts of activity like taking the stairs are also beneficial and can compliment your program.</li></ul>
<b>TYPE</b> (The type of activity)	<ul style="list-style-type: none"><li>• Do a variety of activities throughout the day.</li><li>• Activities may include: taking a brisk walk with a friend at lunch, taking the stairs at work, golf walking, yoga, swimming, dancing, gardening, &amp; carrying your groceries, instead of using a cart.</li></ul>

### **So, How can I become more physically active during the day?**

Recognizing “opportunities” to be more physically active is key to starting and maintaining a physical activity program.

**As we know, all kinds of physical activity are beneficial to your health. Being an independent active person includes performing both “structured activity” (Exercise) and “usual activity” (Moderate Physical Activity). Here are some examples of both Structured and Usual activities.**



## Independent Active Lifestyle



<b>Structured Activity (Exercise)</b>	<b>Usual Activity (Physical Activity)</b>
<ul style="list-style-type: none"> <li>• Has a specific Duration or Distance.</li> <li>• The intensity is specific and should stay within prescribed parameters (HR-Range or RPD Range).</li> </ul> <p><b>Examples of Structured Activity:</b></p> <p>Walking for Aerobic Training Resistance Training Cycling Swimming Water Aerobics Cross-Country Skiing Day Hiking</p>	<ul style="list-style-type: none"> <li>• The Duration may last less than 10 continuous minutes, but should last at least 10 minutes for the most benefit. (Accumulate 30 minutes)</li> <li>• The intensity is moderate- like taking a brisk walk.</li> </ul> <p><b>Examples of Usual Activity:</b></p> <p>Brisk Walking in the Mall Gardening Dancing Fast Raking Leaves Carrying Your Groceries Taking the Stairs Pushing Grandkids in a Stroller</p>



## 10.11. “Successful Aging” Health Education Group

### 10.11.1 Overview:

The comparison group will receive an active successful aging intervention based on the “Successful Aging” curricula that have been used at Stanford, WFUHS, and in other research settings. The successful aging group will receive staff attention, although this type of intervention is deemed “inert” (i.e., not affecting the outcomes of interest in this trial). The successful aging curriculum will involve lectures, mailed materials and field trips/outings. As has been done successfully at Stanford University and in other settings, the lectures will be delivered weekly throughout the first six months, and then monthly until the end of the trial (see Table below). Participants must attend their first Successful Aging workshop within 4 weeks of randomization. Sessions will include topics such as (a) medications, (b) foot care, (c) traveling, and (d) nutrition. Physical activity will not be discussed in these sessions but participants will receive an informational pamphlet on the benefits of physical activity with their “Successful Aging” binders. Beginning in month 7, participants will receive brief monthly telephone contacts by study interventionists, the purpose being to provide ongoing support and to foster retention. Participants will regularly be given giveaways/incentives (See section 10.11.5.1.) to enhance participation and retention. Successful Aging Workshops will be conducted in meeting space that is separate from the clinic assessment area to ensure masking of the assessment staff.

Table: Intervention staff contacts for the successful aging group		
Week	Center-Based Workshop	Telephone Contact
Adoption 1-16	1 time each week	Intervention staff contact made after one missed session to problem-solve around barriers to attendance.
Transition 17-24	1 time each week, with encouragement to take an increasingly proactive role in workshop participation and delivery	Intervention staff contact made after one missed session to problem-solve around barriers to attendance.
Maintenance 25 – end	Offered once per month, with ongoing participation encouraged	Intervention staff contact made on a monthly basis to encourage regular study participation

### 10.11.2 “Successful Aging Workshops” Class Format & Protocol

*Note:* All participants receive a monthly newsletter and class calendar.

Format of Class: Didactic presentation, demonstration by group leader, guest speaker, or field trip/outing followed by Upper Extremity Stretching exercises. Each study site will have the flexibility to choose their own topics based on local resources and participant interests. See section 10.11.2.1 for a listing of suggested class topics. When a field trip/outing is scheduled, upper extremity stretching can be omitted from that day’s schedule.

Frequency of class: Participants are required to attend one class per week during the Adoption and Transition Phases (Weeks 1-24). Attendance is required a minimum of one time per month in the Maintenance Phase (Weeks 25+).

Class Leaders/Organizers are expected to hold at least one class a week during the Adoption and Transition Phase, and one class a month during the Maintenance Phase. However, Leaders may need to offer more than one class time per week/month to accommodate classroom size, number of enrolled participants, & participant availability.

Length of class: 60 - 90 min. depending on topic and speaker

Materials/Facilities required: Classroom for up to 50 people, LCD projector and laptop, overhead projector, whiteboard w/ dry erase pens & eraser; small table for attendance check-in & handouts, tape recorder with microphone (stand or lavalier), blank 60-90 minute audiotapes, attendance sheet & pen.

Staff required: 1 Group leader, 1 classroom assistant (to take attendance, handouts)

**Class Time Breakout:**

5-10 Min. prior to start time	Classroom set-up, participant check-in.
5 Min.	REVIEW of previous session <i>address questions/problems, review/return previous assignments, etc...</i>
30 Min.	PRESENTATION of topic <i>overview, topic defined, goals for session, provide worksheets or handouts</i>
10 Min.	LARGE GROUP discussion <i>based on topic/activity</i>
10 Min.	Upper Extremity Stretching Activity (see 10.11d for protocol)
5 Min.	SUMMARY with assignments for next class, question/answer <i>provide handouts, contact information</i>

\*Format subject to change depending on topic or activity (e.g., field trip, film)

The Workshop Leader is expected to coordinate and schedule workshops at least 4-6 weeks in advance to allow time to prepare and distribute class calendars.

**4-6 Weeks in Advance:**

- Confirm room and equipment availability for the upcoming month.
- If workshop leader is giving presentations:
  - Schedule topics and dates.
- If guest speakers are giving presentations:

- Contact guest speakers and review speaker criteria, suggested topic
- Confirm date and time of presentation.

#### 3-4 Weeks in Advance:

- Finalize & publish class calendar
- Publish monthly newsletter to complement scheduled presentations and/or speakers.
- Send confirmation letter to any guest speakers scheduled for the upcoming month.
- Draft classroom handouts or assignments in conjunction with topic.

#### 2 Weeks in Advance:

- Mail/Distribute class calendar and monthly newsletter to all enrolled participants at least 2 weeks before the first presentation on that calendar schedule (i.e., if calendar starts April 1, mailing should go out March 15 at the latest).

#### One week prior to each class:

- Re-confirm room & equipment availability.
- Re-contact guest speaker (if applicable) to finalize details of presentation (A/V needs).
- Finalize and copy handouts or assignments for the class.

#### On Class Day:

- Arrive early for room set-up, greet & orient guest speaker (if applicable), greet participants, take attendance and distribute/collect any handouts or assignments

#### During Class:

- Introduce self/guest speaker (if applicable)
- Record session
- After in-class presentation and/or discussion, lead class in upper extremity stretching exercises
- Review and discuss previous weeks' homework task
- Assign the homework task for next session

#### Day after Class:

- Send thank-you letter to guest speaker (if applicable)
- Contact any participants who did not attend

## **Suggested Class Topics and Homework Activities for the Successful Aging Workshops**

The following are “allowable” workshop topics. Each study site has the flexibility to choose from this list or develop their own topics based on local resources and participant interests.

### **NUTRITION**

- Basic food groups + fiber
- Fluids & Hydration in aging
- food guide pyramid (adjusted for older adults)
- reading nutrition labels on food packages
- stress-related eating habits
- healthy recipe ideas (in a hurry and using on-hand items)
- fat replacements
- organic farming
- chemically enhanced farming
- farmers’ market
- Nutrition & The Healthy Heart
- Antioxidants: What’s The Story?
- Eating For Cancer Prevention
- Good Eats For The “Empty Nester”
- Calcium: Not Just For Women
- The Lowdown On Lactose Intolerance
- Healthy Holiday Eating Strategies
- Fight Back!: Food Safety Issues
- Sodium And Blood Pressure: Is There A Connection?
- Healthful Vegetarianism
- Phytoestrogens

**“Homework” Activities for Nutrition Topics:** goal setting, tracking, chef demonstrations, grocery store/farmers market field trips, read labels in home/compare labels in store, recipes, articles; menu planning

### **SUPPLEMENTS**

- Dietary Supplements: What are you taking and why?
- Vitamins - what are they, what do they do, how much, how often, what kind?
- Herbs - fact vs. myth

**“Homework” Activities for Supplements Topics:** medicine cabinet check, label reading, tracking, read & review articles

## MEDICATION & PILL USE

- Prescription vs. Over-the-Counter: safe use (expiration dates, mix and match)
- Pharmacist Q&A
- self-medicating- ETOH use, abuse/ estrogen/ tranquilizers
- Herbs as Medicines? Risks and benefits of “prescribed” herbs

**“Homework Activities” for Medication Topics:** medicine cabinet inventory, doctor check

## HEALTH CARE

- Medical Care & Insurance
- Finding good medical care
- HMO vs. PPO vs. Medicare vs. Medicaid
- Alternative Medicine/ what is "alternative" medicine?
- Introduction to Energy Healing
- Music Therapy
- Pet Therapy: The PAWS program
- Know your rights as a patient/ how to talk to your physician/ hospital know-how's
- Surgery considerations/ advanced directives (what to do if you need an attorney)

**“Homework Activities” for Health Care Topics:** review personal policies

## PREVENTIVE MEDICINE – GOOD HEALTH HABITS ACROSS THE LIFE SPAN

- Dental Health: teeth, mouth, gum care
- Skin care – skin cancer check
- Hearing – screening & education, tx options
- Vision – screening & education, tx options
- Foot care/ wound care
- Sexual Health across the Lifespan
- Immunizations across the Lifespan
- GI care
- maximizing your memory ( conflict with major outcomes?)

**“Homework Activities” Preventive Medicine Topics:** personal inventory, professional follow-up PRN, provide a tracking form

## ILLNESS DISEASE KNOWLEDGE & TREATMENT

- Cancer
- Heart disease
- Hypertension: what is BP & HR? In Class Health Screenings
- Crash Course On Cholesterol
- Stroke

- AIDS
- Arthritis
- Osteoporosis
- Prostate problems
- Diabetes
- Heat stroke, exhaustion, dehydration
- Dementia
- Parkinson's Disease

**“Homework Activities” for Illness Topics:** articles, time for a physical? Where to get check-ups & screenings

#### LEGAL & FINANCIAL HEALTH

- Wills, estates, trusts
- Savings for the next generations
- Home buying/selling for older adults
- Retirement – Options & Decisions
- The Stock Market for Older Adults
- Charting Your Path To Financial Wellness
- Protect Yourself: Elder Law

**“Homework Activities: for Legal/Financial Topics:** Q & A with realtors, legal aid & advocacy, stock brokers

#### HAPPINESS IN THE HOME & COMMUNITY

- Safety-proofing the home
- Emergency response
- First Aid / CPR training
- Disaster preparedness, fire, flood and earthquake-readiness
- Crime prevention – financial/theft prevention, tips to avoid being victimized
- Driving over 55 (years old) / Driving Safety
- Community resources- phone numbers, services, activities
- Volunteerism & Outreach
- Recycling Programs
- Gardening, Landscaping and Home Improvements
- Travel & The Older American: What You Should Know

**“Homework Activities” for Home/Community Topics:** visit community resources, house check-ups, make a disaster plan, hands-on training in first aid, safety procedures

#### **LIFE Study Suggested Topics for the Successful Aging Healthy Promotion Group: Pittsburgh Field Center**

##### **The Center for Healthy Aging: 10 Keys to Healthy Aging:**

- Prevent Bone Loss and Muscle Weakness

- Control Systolic Blood Pressure <140
- Be Active (In your Community)
- Blood Glucose <110; Regulate Diabetes
- Stop Smoking
- Maintain Social Contact
- Participate in Cancer Screenings
- Get Regular Immunizations
- Lower LDLc to <130
- Combat Depression

### **Topics offered through the Health Program Speaker's Bureau.**

- Osteoporosis
- Falls and fractures
- Urinary Incontinence
- Senior Surfers: Making the Internet Work for You
- Nutrition: A Journey to Good Health
- Osteoarthritis – A primer
- Reproductive Cancers: Risk & Recovery
- Stress and Heart Disease
- Taking Wellness to Heart
- Taking the Pain Out of Arthritis
- Taking the Tension Out of Hypertension
- Type II Diabetes
- Under Pressure: A Primer on Stress and Time Management
- (Women) and Depression
- Select Risk Factor Screenings

### **Nutrition**

- Dietary Guidelines (5-a-day, Fiber)
- Vitamins, Supplements, & Herb use
- Importance of Water / Dietary Fiber
- Diets: Fad, Plant-based
- Restaurants- hidden problems
- Understanding Nutrition Labels
- Modified Food Pyramid: 70+ Adults

### **Wellness**

- Volunteering
- Sleep
- Traveling Tips & Safety
- Elderhostel / Education / Library
- Understanding your Medical Coverage/ Prescriptions
- Drug Interactions
- Medicare/Medicaid/ insurance for 65+

- Area Agency of Aging
- Caregivers / Eldercare
- Emergency Preparedness/ Safety (Various Seasons)
- Housing/Living Options
- Forgiveness / Healthy Grieving
- Elder Law
- Accessing resources in own community: (Museum tour)
- Health Care Alternatives (Chiropractor/non-traditional/energy healing)
- Music therapy & Pet Therapy
- Sexuality and Aging
- Gardening
- Voting / Absentee Ballots
- Holiday Health and Happiness
- Summer Care / Winter fix-up

#### **Disease: Prevention & Treatment**

- Health testing/Screenings
- Cancer (Screenings)
- Vaccinations
- Memory Loss, Alzheimer's, & Dementia
- Dental Health and Aging
- Parkinson's Disease
- Healthy Cholesterol
- Strokes
- Hearing Loss
- Orthopedic/ Foot care
- Macular Degeneration/ Eye Care
- Incontinence

#### **Workshop example schedule from the “Successful Aging” series at Stanford** (Class Week/ Session Speaker / Session Topic)

Week 1—New Dietary Guidelines

Week 2—Outreach

Week 3—Peninsula Stroke Association

Week 4—Medicare, Medicaid, MediCal... Insurance after 65; Health Insurance  
Counseling Advocacy Program (HICAP)

Week 5—Prostate Cancer

Week 6—Stanford University

Week 7—Insurance dilemma

Week 8—The Balance Center - Posture

Week 9—Assumptions about Fad Diets

Week 10—Intuitive Eating

Week 11—The Balance Center - Posture II



Week 12—Computer Skills  
 Week 13—Alzheimer's/Illness and Disease Knowledge  
 Week 14—Dental health/aging  
 Week 15—Osteoporosis  
 Week 16—Healthy Cholesterol  
 Week 17—Plant based Diets  
 Week 18—Disaster Preparedness  
 Week 19—Healthy Aging/Body  
 Week 20—Healthy Grieving  
 Week 21—Habitat for Humanity—Opportunities  
 Week 22 —Volunteering Today  
 Week 23—Avenues for Successful Aging  
 Week 24—Volunteer, Elder Hostel  
 Week 25—Soy  
 Week 26—Syndrome X  
 Week 27—Forgiveness  
 Week 28—Hearing Loss  
 Week 29—Restaurants: Land Mines of Weight  
 Week 30—Real Estate for Seniors  
 Week 31—Options in facial care  
 Week 32—Orthopedic/foot care  
 Week 33 —Breast Cancer  
 Week 34—Eating for Aging  
 Week 35—Health Library—Community connections - field trip to Stanford Health Library  
 Week 36 – “Be your own Advocate”  
 Week 37 –Elder Law  
 Week 38—Andronico's Tour of the Produce Section  
 Week 39—Cantor Museum—tour  
 Week 40—Documentary Filmmaker “Tsipa and Volf.....”  
 Week 41— Heart Smart, Blood Pressure information  
 Week 42—Parkinson's Disease  
 Week 43—Osteoarthritis  
 Week 44—Chiropractor, Alternatives to Health (nontraditional)  
 Week 45—Stanford University, “Vial of Life”  
 Week 46—RD Diet and Cancer  
 Week 47—Music/Drum Therapy, Ta Ke Ti Na  
 Week 48—Introduction to Energy Healing  
 Week 49 – Pet Therapy, the “PAWS” program  
 Week 50 – Sexuality and Aging  
 Week 51 –Q&A with Staff Physician on aging, medications and health  
 Week 52 –Dietary Fiber  
 Week 53 –Home Consumer Education Program  
 Become a master gardener  
 Week 54 – League of Women Voters, Election issues  
 Week 55 – Holiday Health and Happiness

Week 56 – Health Care Options for all ages  
Week 57 – Chocolate: Food or Drug?

#### **10.11.2.2. Sample Presentations**

The following presentations will be available on the LIFE Study website.  
Additional presentations will be added regularly.

- 1) Breast Cancer
- 2) Age-Related Macular Degeneration
- 3) Osteoporosis
- 4) Prostate Cancer
- 5) New Dietary Guidelines
- 6) Supplements
- 7) Plant-Based Diets

### 10.11.2.3. Sample Class Calendar & Attendance Sheet

#### Successful Aging Workshop Calendar

For the Month of: \_\_\_\_\_

Day & Time: \_\_\_\_\_

Location: \_\_\_\_\_

Date	Topic/Title
Tuesday, April 3, 2001	Nutrition Spotlight: <b>"Antioxidants and Health"</b>
Tuesday, April 10, 2001 <b>Special Time: 10:00 am</b>	<b>Vermiculture</b> - Guest Speaker Sally Aspland, Master Gardener
Tuesday, April 17, 2001	<b>Parkinson's</b> Disease- Guest Speaker Janet De Maria, The Parkinson's Institute
Tuesday, April 24, 2001	<b>Volunteer</b> Opportunities at <b>Stanford Hospital</b> Guest Speaker: Jean Kennedy
Tuesday, May 1, 2001 <b>Special Time: 10:00 am</b>	<b>Diet and Cancer</b> - Guest Speaker Marcia Stefanick, PhD
Tuesday, May 8, 2001	<b>Medications</b> : Guest Speaker Ami Laws, MD
Tuesday, May 15, 2001	<b>Pet Therapy</b> - The PAWS Program; Guest Speakers Lori Lane and Francie Souza

## LIFE Workshop Attendance Sign-in Sheet

Date:

Topic:

Name:	<i>Attended?</i>	Notes/Comments
	<input type="checkbox"/>	
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#### 10.11.2.4. Sample Homework Assignments

Take home recipe for low fat/low calorie cooking:

##### “OVEN-FRIED” FISH FILLETS

SERVES: 4



1 lb. Frozen flounder or sole fillets, thawed	1 tsp. seasoned salt
2 Tbsp. Plain non-fat yogurt	½ tsp. pepper paprika (optional)
1 Tbsp. olive oil	
1 - 1/2 tsp. Lemon (or lime) juice	
4 Tbsp. Packaged bread crumbs	

##### Directions:

Preheat oven to very hot (475°F). Spray a nonstick cookie sheet or shallow baking pan liberally with cooking spray.

Combine yogurt, oil, and juice in shallow dish; mix well. Sprinkle bread crumbs on wax paper. Dip fish fillets in the yogurt mixture, then press into the crumbs, lightly coating both sides. Arrange fish in a single layer on the cookie sheet. Sprinkle with salt, pepper and paprika. Bake fish, uncovered, in preheated oven for 8 minutes (or longer depending on thickness of the fillets). DO NOT TURN FILLETS. Fish is done when coating is golden and fish flakes easily. Remove fish with a spatula.

Nutrition Facts				
Calories	165	Cholesterol	55 mg	
Carb	5 g	Carbohydrate	6 g	Fiber 0 g
Saturated Fat	.9 g	Protein	23 g	Sodium 535 mg

**Sample shopping list homework activity for a food pyramid or 5 a day lecture:**



**Shopping List**

***Breads & Cereals:***

- |                                      |                                      |
|--------------------------------------|--------------------------------------|
| <input type="checkbox"/> Oatmeal     | <input type="checkbox"/> Bran Flakes |
| <input type="checkbox"/> Raisin Bran | <input type="checkbox"/> Oat Squares |
| <input type="checkbox"/> WW Bread    | <input type="checkbox"/> WW Bagel    |
| <input type="checkbox"/> Oat Bran    | <input type="checkbox"/> Brown Rice  |
| <input type="checkbox"/> WW Pasta    | <input type="checkbox"/> _____       |

***Fruit***

- |                                  |                                       |
|----------------------------------|---------------------------------------|
| <input type="checkbox"/> Melon   | <input type="checkbox"/> Blueberries  |
| <input type="checkbox"/> Apples  | <input type="checkbox"/> Plums        |
| <input type="checkbox"/> Oranges | <input type="checkbox"/> Apricots     |
| <input type="checkbox"/> Peaches | <input type="checkbox"/> Strawberries |
| <input type="checkbox"/> Bananas | <input type="checkbox"/> _____        |

***Vegetables***

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Asparagus | <input type="checkbox"/> Green Beans     |
| <input type="checkbox"/> Broccoli  | <input type="checkbox"/> Spinach         |
| <input type="checkbox"/> Tomato    | <input type="checkbox"/> Romaine Lettuce |
| <input type="checkbox"/> Squash    | <input type="checkbox"/> Potato          |
| <input type="checkbox"/> Carrots   | <input type="checkbox"/> _____           |

***Dairy/Milk***

- |                                    |  |
|------------------------------------|--|
| <input type="checkbox"/> Skim Milk | <input type="checkbox"/> Non-Fat Yogurt    |
| <input type="checkbox"/> Soy milk  | <input type="checkbox"/> 1% Cottage Cheese |

***Protein***

- |  |   |
|--|---|
| <input type="checkbox"/> Soy Burger    | <input type="checkbox"/> Turkey, lean   |
| <input type="checkbox"/> Tuna in water | <input type="checkbox"/> Legumes        |
| <input type="checkbox"/> Chicken, lean | <input type="checkbox"/> Egg Substitute |
| <input type="checkbox"/> Veggie Burger | <input type="checkbox"/> _____          |

***Miscellaneous***

- |   |   |
|---|---|
| <input type="checkbox"/> FF Salad Drsg. | <input type="checkbox"/> Cracker, RyKrisp     |
| <input type="checkbox"/> Rice Cakes     | <input type="checkbox"/> Cracker, Melba Toast |
| <input type="checkbox"/> Pretzels       | <input type="checkbox"/> LF Granola Bars      |
| <input type="checkbox"/> FF Mayo        | <input type="checkbox"/> Graham Cracker       |
| <input type="checkbox"/> Jelly or Jam   | <input type="checkbox"/> Soup                 |
| <input type="checkbox"/> SF Cocoa Mix   | <input type="checkbox"/> Popcorn, Light       |
| <input type="checkbox"/> Frozen Entrees | <input type="checkbox"/> _____                |
| <input type="checkbox"/> _____          |   |
| <input type="checkbox"/> _____          |   |

#### **10.11.2.5. Protocol for Soliciting Guest Speakers**

- Workshop leaders are expected to obtain names and contact information from trusted sources (personal contacts, professional colleagues, known community leaders).
- Workshop leaders are expected to create a master list or database of contact information. Many speakers may not be available in the next month or two, but could be available to schedule later in the year.
- Workshop leaders should use the telephone guide to communicate the important information about the Workshop and the role of guest speakers.
- When negotiating with a guest speaker, clarify the major points of the “Guest Speaker Requirement/Criteria” (i.e., is able to relate to an older audience, must not provide physical activity instruction or guidance, agrees not to solicit participants for business purposes).
- Workshop Leaders are expected to send Confirmation letters prior to Guest presentations, and Thank-You letters following presentations (see samples)

#### **Workshop Leader/Guest Speaker Requirements & Criteria**

- Recognized expert or authority on the subject
- Prepared to provide 30-40 minute lecture/discussion on topic
- Able to relate the topic to an audience ages 70+ years
- Willing & able to provide handout on topic before the workshop
- Debriefed on major study goals (main outcomes, differences between conditions)
- Agrees not to discuss or present information that may contaminate the condition
- Does not attempt to solicit business or sell products during the workshop (can provide contact information for interested participants)
- Able to schedule at least one month in advance

## **Telephone Guide for Soliciting Guest Speakers for Successful Aging Workshops**

- Greeting

- State how you know contact (personal connection, referral from colleague, recommendation from participant, etc.).

“My name is \_\_\_\_ and I was put in touch with you by \_\_\_\_”.

- Explain the LIFE study.. Example:

“I am on the staff of the LIFE study. This is a research project on physical disability prevention for adults ages 70-85. We have 100 people in this study: half of them are receiving structured physical activity training, and half are in a comparison condition called the Successful Aging Workshops. I’m the coordinator for the Workshops. In the classes, we try to teach a variety of health topics about everything except physical activity or exercise. We hold a class every week for about an hour. Many times, we try to bring in guest speakers who have special knowledge or expertise in certain areas. ”

- Inquire about interest in being a guest speaker. Example:

“The topic of \_\_\_\_\_ is important to the people in this class, and we were hoping you might be available to give a presentation on this topic. Does this sound like a possibility? Or, do you have another topic in mind?”

- Explain Guest Speaker Requirements/Criteria

- Does Speaker feel able to provide a talk that meets the guidelines?
- Explain general format of presentation (didactic presentation, group discussion, Q&A, group activity, handouts, etc.).

- Explain date, time, location and calendar availability

- Verbally confirm a time & date.

- THANK the person for their time and contribution. Say you will follow up with a letter of confirmation and you will receive a phone call one week prior to your date of presentation to finalize plans for your session. Obtain mailing contact information.



Sample Confirmation Letter

**<Insert Date>**

<Name>

<Address>

<City>, <STATE> <ZIP>

Dear <Name>,

Thank you again for your willingness to give a presentation to the LIFE Successful Aging Workshop. You are providing a valuable service to your community and many older adults in our area. You are scheduled for:

Date:

Time:

Topic:

Location:

Enclosed are directions, a map, and parking information.

As we discussed on the telephone, the workshops are the comparison condition for the LIFE study of physical disability prevention for older adults. The workshop is for adults ages 70-85. They come from a diverse background of life experiences, education and professions, and all are eager to learn about healthier living. The group meets for 60 minutes, with 30-40 minutes allotted for the topic presentation. Based on our experience, we find it especially helpful when presenters prepare a small in-class activity or group discussion topic. We would also appreciate any handouts (e.g., worksheets, self-assessments, articles, handouts of slides) that you would be willing to share with the group; if we could receive these at least a week before your scheduled talk, we will make the appropriate number of copies. We have several visual aids at your disposal if you should need/want them: an overhead projector, LCD projector/computer, and slide projector.

Due to the nature of the study, we ask that workshop guest speakers refrain from providing any guidance, recommendations or instruction specific to physical activity. If you are concerned about the impact this may have on your talk, please feel free to contact me to discuss ways to work around this.

I greatly appreciate your help and the participants look forward to your presentation. I'll contact you again with a reminder before your talk. Until then, feel free to contact me if you have any questions or concerns.

Sincerely,  
Workshop Leader  
LIFE Site

## Sample Thank-You Letter

**<Insert Date>**

<Name>

<Address>

<City>, <STATE> <ZIP>

Dear <Name>,

Thank you so very much for your presentation to the LIFE Successful Aging Workshop. Your talk was very informative and important to our audience, and we all appreciated your willingness to volunteer your time to our group.

Sincerely,

Workshop Leader  
LIFE Site

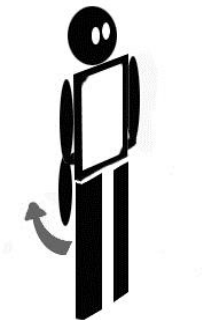
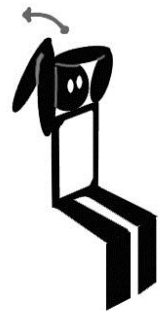
### 10.11.3. Upper Extremity Stretching Protocol

The upper extremity stretching should be performed at the end of each education workshop and can be directed by the workshop leader. The stretches should be performed to each individual's comfortable range of motion (they should be instructed to stretch without any pain perception and perform each physical activity smoothly and slowly). Below is a list of stretches from which the workshop leader can choose. The stretches can vary from session to session. All of the stretches are to be performed seated with the exception of the biceps stretch. Choose the stretches that meet the needs of your participants.

Each stretch should be performed 2 times

#### Elbow Stretching:

*Triceps stretch:* Flex elbow by touching open palm to the front of shoulder on same arm. Use opposite hand to flex shoulder by lifting elbow forward and pointing toward ceiling. Hold the stretch for 20 seconds. Repeat on the other arm.



*Biceps stretch:* Let arm hang with palm facing back of room. Use opposite arm to reach behind back, and placing hand around the elbow of hanging arm, push straightened arm as if to point fingers at wall behind subject. Hold the stretch for 20 seconds. Repeat with the other arm.

#### Back Stretching:

*Oblique stretch:* Raise one arm towards ceiling. Bend at waist to point the fingers of the raised hand towards the opposite side. Hold the stretch for 20 seconds. Repeat to the other side.



*Trunk Rotators:* Sit with feet facing forward. Use both hands on chair back or arm rests to turn shoulders towards one side while hips, knees and feet retain forward orientation. Hold the stretch for 20 seconds. Repeat to the other side.

*Neck and Shoulders:* With back straight, rotate head 45 degrees and look down towards waist. Grab seat bottom with hand of arm opposite the direction of head turn. Hold the stretch for 20 seconds. Repeat to the other side.

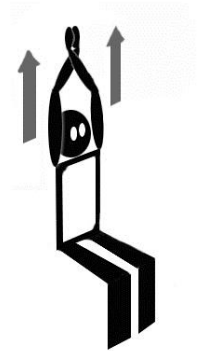


### **Shoulder Stretching:**



*Posterior Deltoids/Lateral Rotators:* Sit with arm extended straight in front and palm facing down. Horizontally adduct arm with aid of opposite hand. Hold the stretch for 20 seconds. Repeat to the other side.

*Flexion:* Cross arms in front of body and turn palms of hands together. Raise the arms together overhead, and extend elbows. Hold the stretch for 20 seconds.



### **Forearm Stretching:**



*Flexors:* Extend arm in front of body with palm facing away. Use opposite hand to pull hand towards body. Hold the stretch for 20 seconds. Repeat to the other side.

*Extensors:* Extend arm in front of body with palm facing towards body. Use opposite hand to pull hand towards body. Hold the stretch for 20 seconds. Repeat to the other side.



#### 10.11.4. Newsletters

The first 12 newsletters have been developed and include the following topics. These newsletters will be available on the LIFE website and can be adapted by each field center to meet their local needs. Additional newsletters will be developed and posted as they become available.

Month	Front Page	Back Page
1	5-a-Day	5-a-Day Recipes
2	Fruits: Berries	Fruit Recipes
3	Colds & Flu	Health & Travel
4	Nutrition Did You Know...	Current Events (TBD)
5	Dining Out	Dining Out
6	Estate Planning	Estate Planning Checklist
7	Nutritional Goal Setting	Healthy Holiday Eating
8	Nutrition for a Healthy Heart	AHA Research Topics
9	Nutrition Labels	Nutrition Advertising Claims
10	Dietary Supplements	False Health Claims
11	Travel Tips	Travel Resources
12	Water	Water: Bottled vs. Tap?

#### 10.11.5. Behavioral Strategies for the Successful Aging Intervention Arm

The purpose of the Successful Aging group is to control for general levels of staff and participant time and attention, in addition to general secular and seasonal effects that could influence the outcomes of interest. In choosing a successful aging program, we were guided by three overriding principles: 1) to optimize participant recruitment and to ensure participants' ongoing cooperation and retention in the study; 2) to select a comparison intervention that would have minimal effects on the composite primary outcome; and 3) to utilize an intervention that participants would perceive as offering some benefit. The third factor derives from findings in previous studies of older adults, namely, that individuals are significantly less inclined to participate in a study if they perceive a lack of benefit in any of the treatment groups.

The pilot study comparison group is based on both the Successful Aging workshop series developed at Stanford (a program that has been successfully utilized as a successful aging group model in three physical activity clinical trials with older adults) and on similar successful aging programs developed for adults at WFUHS, Tufts, Yale and Pittsburgh. Participants will receive information on a variety of topic areas of relevance to older adults (e.g., how to effectively negotiate the health care system, how to travel safely, recommended preventive

services and screenings at different ages, where to go for reliable health information, etc.). The program will include an experiential component, in which participants learn how to actively 'take charge' of their health in seeking out appropriate medical information and services.

The following behavioral strategies, which have been used successfully to promote sustained participation in previously studied successful aging groups, parallel the behavioral strategies to be used in the physical activity group. These include the following:

During the **adoption and transition phase** (first 6 months) **for the successful aging comparison group the primary behavioral techniques include:**

- 1) **General feedback** obtained from baseline testing related to overall levels of health and functioning. This will be accomplished at the initial individualized face-to-face contact visit described in section 10.11.7.
- 2) **Specific structuring of expectations** concerning the Successful Aging curriculum, to ensure that subjects' expectations are reasonable and realistic. This will be accomplished through both the randomization visit and the initial individualized face-to-face visit.
- 3) **Consciousness raising** and similar experiential processes related to the problems of a poor diet and other health areas (e.g., foot and eye care; medical screening), and the benefits of adopting a healthier lifestyle. This will be accomplished through the Workshop series.
- 4) Establishing **concrete goals** related to attending the Successful Aging sessions and participating in that intervention throughout the intervention period. This will be introduced at the randomization visit and then further discussed at the initial individual face-to-face meeting. Attendance goals will further be reinforced during the monthly telephone calls beginning in Month 7. Participants are invited to bring a spouse/friend or family member to the Workshop from time to time to foster adherence.
- 5) A staff-participant **contract** (following randomization) is used to clarify the above goals and expectations and to increase initial participant commitment to the goals. This contract, reviewed and signed by the participant and a staff member, restates the responsibilities of both the participant and project staff with respect to the study, and is used to note the specifics of the first several weeks of the successful aging group intervention (e.g., days, location). This will be accomplished at the randomization visit and reinforced at the initial individual face-to-face visit.
- 6) Distribution of easy-to-read **written materials** to prompt regular and appropriate participation in the Successful Aging program. Appropriate materials will be distributed at each session and participants will be encouraged to keep the materials in their study binder for future reference.
- 7) All participants assigned to this group are required to attend the Successful Aging sessions on a weekly basis, to foster **early 'buy in'** to this intervention group, and to set the stage for continued participation throughout the

intervention period. During the latter portion of the initial 6-month period, participants are encouraged to actively participate in choosing topic areas that will receive additional focus during the second 6-month period. Participants will be invited to provide feedback for topic areas at the initial individual meeting as well as by completing comment cards. They will also be asked about future topics of interest during their monthly telephone contact.

- 8) Similar to the physical activity group, participants assigned to the successful aging group are encouraged to **track behavior changes** related to nutrition and other areas. This will be accomplished by providing relevant homework assignments to complete prior to the next class meeting (e.g., trying specific healthful recipes; undergoing simple pantry checks in their homes; food label reading activities).
- 9) Participants who miss a scheduled meeting are contacted via telephone by a study interventionist to encourage continued participation in this group and to use **problem-solving** skills to overcome potential barriers to continued participation. See section 10.11.8. for a description of the monthly telephone contact.

During the **maintenance phase** (7<sup>th</sup> month through the end of the trial), participants in the **Successful Aging** group receives support from study intervention staff that relates to participation in the monthly Successful Aging meetings. Those participants who miss a scheduled meeting are contacted via telephone to encourage continued participation in this group and to use problem-solving skills to overcome potential barriers to continued participation. Participants are encouraged to actively participate in their ongoing program experience, with respect to topic areas of interest, guest speakers, etc.

#### 10.11.5.1. Incentives

Each field center will purchase a variety of giveaways/incentives to distribute to the LIFE Study participants at various times during the intervention. The following is a listing compiled by the Pittsburgh group, of possible incentives at different study milestones:

##### At Clinic Visits:

Randomization:	Bag (canvas/nylon), Magnet, and Pen
6 months:	Date Book
12 months:	Sunsaver Pack
18 months:	Ice Scraper
Closeout:	Certificate

##### Activity Intervention:

Face-to-Face:	T-shirt
Intervention Milestones:	Sweat towel, Shoestring Springs,

Water Bottle, Stress Ball,  
Jar Openers, Toothpaste aids, Flashlights,  
Nightlights, Stickers,  
Letter Openers, Sport Tubes,  
Magnifying Ruler, Visors, Notepads

On-Site: Goal board for participant interaction.

Successful Aging Intervention: (In accordance with session topics)  
Shoestring Springs, Water Bottle,  
Stress Ball, Jar Openers,  
Toothpaste aids, Flashlights, Nightlights,  
Stickers, Letter Openers, Sport Tubes,  
Magnifying Ruler, Visors, Notepads

#### 10.11.6. Successful Aging Workshop Randomization Protocol

- **Provide the participant with a binder or folder which includes a list of Successful Aging Workshops and a current Calendar.** This binder should also include other important information (e.g., contact numbers, directions, maps). See section 10.11.6.1 below for specifics.
- Explain that the participant is expected to attend weekly for the first 6 months, then monthly. Let the participant know that they will continue to receive updated calendars in the future, and a monthly newsletter.
- Have participant sign the **Expectations Contract** (See section 10.11.6.3 below).
- Schedule the 45-minute initial individual face to face interview to introduce participant to the study arm and to build rapport and excitement for the study.
- Let the participant know that you are going to be sending a letter to their PCP advising them that you are participating in this study.
- If possible, give participant a tour and brief orientation to workshop classroom (when to arrive, where to sign in, where to look for handouts, what to do if unable to attend a class).
- **Give business card** of workshop coordinator and encourage him/her to call if he/she has any problems or questions.



- **Contact** workshop leader and give the new participant's name and date of randomization.
- **Answer any questions** about group the participant was assigned. Tell participant that you believe in his/her ability to benefit from this condition, and that you look forward to working with him/her.
- **Thank** the participant and **say good-bye**.
- **Return** to the RZ computer software program, **enter** the condition the participant was assigned. Document the randomization outcome on hard copy.
- **Remember to instruct the participant to not discuss their group assignment (physical activity or successful aging) with any LIFE assessment staff.**
- **Update** contact database and **file hardcopies**.

#### 10.11.6.1. Binder/folder Contents for Successful Aging

The following is a suggested format for the Workshop binders that are distributed at the randomization visit. A similar binder should be distributed to the Physical Activity Group upon randomization.

- Front cover should have LIFE logo.
- Inside front cover should have a sticker with participant's name and phone number (To call if left behind after a session).
- Welcome note (See sample in section 10.11.6.2 below)
- Contact Sheet: Names/Phone number/Address Successful Aging staff
- Include session day, time, location, etc.
- Parking Information & Map
- Copy of Contract

#### **10.11.6.2. Sample Welcome Letter for Study Binder**

##### **WELCOME TO THE SUCCESSFUL AGING GROUP OF THE LIFE STUDY!**

As the coordinator of the Successful Aging health education group, I want to congratulate and welcome you to the LIFE Study. Your participation is very important to the study and your commitment will make a difference.

A special Workshop series has been prepared for you. This program will focus on health education topics of concern to older adults and their health. We are particularly interested in your feedback. If there are any special topics that you would like to learn more about, please let us know, and we will make every effort to address your interests.

Every month you will receive in the mail a newsletter and a calendar that provides the topics and dates for the upcoming education series. We ask if you are unable to attend a session, to please give me a call at (phone number).

Sincerely,

Staff Name  
Successful Aging Health Education Coordinator  
LIFE Study

### 10.11.6.3. “Successful Aging” Workshop Description and Expectations Contract

#### LIFE Successful Aging Workshops

Congratulations! You have been selected to participate in the Successful Aging Workshop Group. The workshop series has been carefully design to provide topics relevant to healthy living and aging. Examples of workshop topics include: diet and nutrition for seniors, successfully navigating the health care system, and legal and financial planning. As part of this group, you are expected to attend and participate in regularly scheduled meetings.

<u>Workshops are offered:</u>
Day:_____
Time:_____
Location:_____
Workshop Leader:_____
Phone Number:_____

#### Expectations for Participation:

- You are expected to attend one meeting per week for 6 months. After 6 months, you are expected to attend one meeting per month.
- Notify your workshop leader in advance if you are unable to attend any workshop sessions. A monthly calendar will be sent to you that outlines upcoming events.
- Attend scheduled health evaluations. These will occur 6, 12, and 18 months from now.
- Maintain contact with LIFE staff so we know how you are doing.

Your signature below indicates that you understand your role in the Successful Aging Workshop Group and agree to meet the expectations outlined above.

Signed (participant):\_\_\_\_\_ Date: \_\_\_\_\_  
Interventionist:\_\_\_\_\_ Date: \_\_\_\_\_

#### 10.11.6.4. Draft Letter to PCP about LIFE Study

<Physician's name>

<Address>

<Date>

Dear Dr. <Name>:

Your patient, \_\_\_\_\_, has been enrolled in the Lifestyle Interventions and Independence for Elders (LIFE) study. This clinical research study is sponsored by the National Institute on Aging. A total of 400 sedentary persons aged 70-85 years who are at risk of disability will be followed for >1 year at 4 sites: the University of Pittsburgh Department of Epidemiology, Wake Forest University School of Medicine in Winston Salem, NC, the Cooper Institute in Dallas, TX, and Stanford University in Palo Alto, CA.

This research study will assess 2 different programs designed to enhance independence and to improve your patient's health. The 2 programs being evaluated are a physical activity program and a successful aging program. **Your patient has been randomized to the Successful Aging program.** He/she will attend one session per week for the first six months then one per month for the remainder of the trial. A variety of information will be provided at these sessions by trained health professional in order to promote healthy aging. The study will last up to 2 years.

The Principal Investigator of the (field center) is (field center PI) and the Co-Principal Investigator/Study Physician is Stephanie Studenski, MD. **The Successful Aging Workshop Coordinator is (interventionist).** He/she can be reached at (phone number) if you have any questions or concerns.

Sincerely,

Project Director, The LIFE Study

### 10.11.7. First Individual Face-to-Face Contact

*Initial Counseling Session:*

*Welcome to the LIFE Successful Aging Program*

#### **Objectives**

In this session the participant will:

- Meet the individual counselor
- Receive an overview of the Successful Aging program
- Review the goals of the program and why they are important
- Discuss personal outcome expectancies and concerns
- Review results from your baseline clinic assessment

#### **WELCOME AND INTRODUCTION**

Greet the participant in an enthusiastic and friendly manner.

*Hello. It is good to see you. How are you?*

#### **INTRODUCTION TO THE LIFE STUDY**

The most important part of this session is to establish rapport with the participant. Encourage the participant to ask questions and express concerns. This session should be conversational rather than didactic. Use open-ended questions to facilitate the participant's speaking freely (See section 10.10. Item III for basic counseling skills). Begin by covering the following:

- Greeting and your background/role in the LIFE STUDY
- Participant's background
- Program overview
- Personal goals and concerns

#### **A. Greeting/Background & Role in LIFE/Other Staff**

*Hello \_\_\_\_\_. My name is \_\_\_\_\_. It is great to meet you and to have this opportunity to introduce you to the LIFE Successful Aging Health Education Program. We will talk today about what it means to be in this Program, but let me first tell you a little about myself. My role in the LIFE STUDY is \_\_\_\_\_. Other staff you may have met or will meet include \_\_\_\_\_. [Use staff photo here - optional.]*

## **B. Participant's Background**

Open-ended questions should be used to elicit information about participants and allow them to talk about the issues that are most important to them. Encourage participants to share information about their family, occupation, interests, and hobbies. In addition, determine what lead them to join the LIFE STUDY. What benefits do they hope to achieve? Try to use information you already know about the participant to begin the conversation. For example, where he/she lives or works:

*I would like to know more about you. Tell me about yourself.*

*Additional probes: Tell me about your work.  
Tell me a little about your family.*

## **C. Program Overview**

Provide a brief overview of the program. Indicate that it is designed to help older adults improve their physical function and to prevent physical disability. We hope this will improve your physical function and overall health. Indicate that the participant is one of 200 people from four sites nationwide who is receiving the program (provide map). The program is sponsored by the National Institutes of Aging.

Briefly review the structure of this group:

**Weekly Workshops:** You are expected to attend and participate in a series of workshops related to healthy living and Successful Aging. For the first 6 months you will be expected to attend a session 1 time a week, and from month 7 onward, you will be expected to attend at least 1 session per month. These workshops give you the opportunity to learn about variety of subjects that pertain to living a healthier lifestyle. Each week, a short homework assignment to reinforce the weeks' topic.

**Phone Calls:** Beginning in month 7, they will receive monthly phone calls from their counselor to review progress, discuss concerns, and solve problems that arise.

#### **D. Personal Goals and Concerns**

It is very important to discuss personal goals and concerns. What do you expect to achieve from being involved in this study? Have you ever tried this type of program before?

#### **E. Review Baseline Assessment Visit Results**

Review with participant their baseline results for blood pressure, height, weight and percent body fat. Give them a copy of their Baseline Results Report (see example in section 10.11.7.1.)

#### **INDIVIDUAL COUNSELOR-PARTICIPANT RELATIONSHIP**

Introduce the guidelines for establishing a “winning team” with the participant. Let the participant know they can count on you to help them reach goals, answer questions, be honest, and provide support.

***I want to make sure that you achieve your best possible results in our program. I have found, in helping other people, that you will probably be most successful if you:***

- **Come to all the sessions**
- **Do your best to complete your homework assignments. Let someone know if you have any problems.** Ask questions when you don't understand something. I am here to help, and I need to know when you are having any difficulties. There is no such thing as a “stupid” question. It's smart to speak up when you have a question.
- **Stay willing and open to change**
- **If possible, please call 24 hours ahead if you must miss a meeting.** For example, call before Monday afternoon if you must miss a Tuesday afternoon meeting.

*Some participants, because of their cultural heritage or personal history, may consider it rude to ask questions or to bring up difficulties. This is true, for example, of many Hispanics. With these participants in particular, be sure to express your acceptance and appreciation when they voice their questions and concerns.*

*I will help you in any way that I can including:*

- **Reviewing your progress**
- **Answering your questions.** *It is important that you feel free to ask me any questions you have, and I will get the answers for you. Please remember that the LIFE staff are experts and our job is to*

*teach skills and make our expertise available to you in any way we can.*

- ***Standing by you when you need me to support your changes***
- ***Believing you can reach your health goals.*** *We all need someone to believe in us when we are making changes for the better. I know you can do it, and when you get discouraged, I am here to provide feedback.*

*Is there anything else you would like me to do to help you?*

### **CLOSE**

Address participant questions  
Provide a next session reminder  
Thank the participant

*Do you have any questions I can answer for you?*

*Our next session is\_\_\_\_\_*

*It was a pleasure to meet you and I look forward to seeing you next time.*

*Thank you for coming in today.*



### 10.11.7.1 Sample Baseline Results Report Form

This form will be posted on the LIFE Study website for each center to adapt to their needs.



## LIFE Study Baseline Results Report

We would like to thank you for your participation in the LIFE Study. These tests were done for research purposes only and were not intended to diagnose any health problems. We encourage you to share them with your doctor. If you have any questions, please call the LIFE clinic at: (\_\_\_\_\_).

**Participant Name:**

\_\_\_\_\_

**Date of Clinic Visit:**

\_\_\_\_\_

**Blood Pressure:** \_\_\_\_\_ / \_\_\_\_\_  
**mm HG**

Normal:	Less than 120 / 80 mm Hg
Prehypertension:	120-139 / 80-89 mm Hg
Hypertension:	140 / 90 mm Hg or higher

Based on your blood pressure taken today, the Joint National Committee on Detection, Evaluation, and Treatment of High Blood Pressure recommends that you:

- ☐ Have your blood pressure rechecked within 1 year
- ☐ Have your blood pressure rechecked within 2 months
- ☐ See your doctor about your blood pressure within 1 month
- ☐ See your doctor about your blood pressure in 1 week
- ☐ See your doctor about your blood pressure immediately

If you have any specific questions about your blood pressure, please talk with your doctor.

**Height:** \_\_\_\_\_ **cm**      \_\_\_\_\_ **feet** \_\_\_\_\_ **inches**

**Weight:** \_\_\_\_\_ **kg**      \_\_\_\_\_ **pounds**

**Body Mass Index:** Body mass index (BMI) is a measure of body fat based on height and weight that applies to both adult men and women. The left column lists height. Move across to a given weight (in pounds). The number at the top of the column is the BMI at that height and weight. Pounds have been rounded off.

BMI less than 25 is normal; 25.0 to 29.9 is overweight; 30 or greater is obese. BMI may **overestimate** body fat in athletes and others who have a muscular build. It may **underestimate** body fat in older persons and others who have lost muscle mass.

BMI	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35
Height (ft, in)	Body Weight (pounds)																
4' 10"	91	96	100	105	110	115	119	124	129	134	138	143	148	153	158	162	167
4' 11"	94	99	104	109	114	119	124	128	133	138	143	148	153	158	163	168	173
5' 0"	97	102	107	112	118	123	128	133	138	143	148	153	158	163	168	174	179
5' 1"	100	106	111	116	122	127	132	137	143	148	153	158	164	169	174	180	185
5' 2"	104	109	115	120	126	131	136	142	147	153	158	164	169	175	180	186	191
5' 3"	107	113	118	124	130	135	141	146	152	158	163	169	175	180	186	191	197
5' 4"	110	116	122	128	134	140	145	151	157	163	169	174	180	186	192	197	204
5' 5"	114	120	126	132	138	144	150	156	162	168	174	180	186	192	198	204	210
5' 6"	118	124	130	136	142	148	155	161	167	173	179	186	192	198	204	210	216
5' 7"	121	127	134	140	146	153	159	166	172	178	185	191	198	204	211	217	223
5' 8"	125	131	138	144	151	158	164	171	177	184	190	197	203	210	216	223	230
5' 9"	128	135	142	149	155	162	169	176	182	189	196	203	209	216	223	230	236
5' 10"	132	139	146	153	160	167	174	181	188	195	202	209	216	222	229	236	243
5' 11"	136	143	150	157	165	172	179	186	193	200	208	215	222	229	236	243	250
6' 0"	140	147	154	162	169	177	184	191	199	206	213	221	228	235	242	250	258
6' 1"	144	151	159	166	174	182	189	197	204	212	219	227	235	242	250	257	265
6' 2"	148	155	163	171	179	186	194	202	210	218	225	233	241	249	256	264	272
6' 3"	152	160	168	176	184	192	200	208	216	224	232	240	248	256	264	272	279
6' 4"	156	164	172	180	189	197	205	213	221	230	238	246	254	263	271	279	287

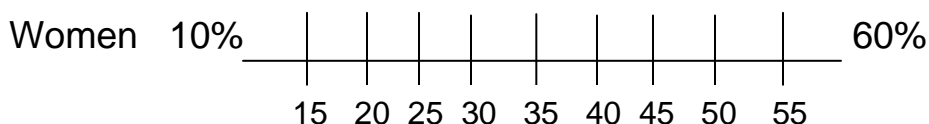
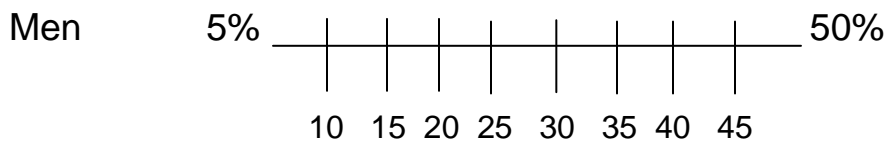
## Body Composition

With age, our weight changes and this is often a result of an increase in body fat along with a decrease in lean mass. These changes in body fat and lean mass may lead to an increased risk for health problems and disability. For example, obesity (high percent body fat) may reduce life expectancy by increasing the risk of developing coronary artery disease, high blood pressure, Type II diabetes, certain types of cancer, and several other diseases including arthritis. Although less common, a person may have too little body fat. Since we need a certain amount of body fat (called essential fat) to maintain normal body functions, older men and women with too little fat may also be at risk for health problems.

The body composition test you had during your assessment visit allowed us to measure your percentage of body fat. It is important to measure percent fat in addition to weight alone since it is the composition of the weight that may be important and not weight alone. Your percent body fat is written below along with the range in the LIFE population. There is no exact level of percent body that is definitely associated with risk of health problems or disability among older individuals.

Your Percent Body Fat: \_\_\_\_\_%

LIFE Study Range:



### 10.11.8. Monthly Telephone Contact

The following section will describe the structure of the telephone contacts in general and provide scripts and various example scenarios. For the Successful Aging group, monthly telephone contacts begin in the 7<sup>th</sup> month of the study should be used only for participants who have missed a session/sessions. Consistent with the behavioral intervention to be used in the LIFE study, telephone contacts are conducted based on social cognitive principles with the purpose of enhancing and/or maintaining motivation, retention/adherence to study protocols, and problem solving. Telephone contacts will consist of the following elements: preparation, initial greeting, feedback (including examples of potential participant response scenarios), discussion targeted at social cognitive principles, social-environmental factors, behavioral contract, and salutation. Each of these elements is described below.

- I. Preparation
  - Inspect attendance logs.
  - Review notes from homework assignments
- II. Initial Greeting
  - i. “Hello \_\_\_\_\_, this is \_\_\_\_\_ from the LIFE Study. How are you today? I was wondering whether we could talk about your participation in the Successful Aging Workshop for a few minutes. Do you have about 15 minutes to talk right now?
  - ii. If NO, arrange a specific time for telephone contact.
  - iii. YES, “Great! I would like to talk to you to see if the program is meeting your expectations and whether there are any topics that you would be interested in hearing about that we have not included in our schedule. Does that sound OK?
  - iv. If NO, inquire why.
- III. Feedback (sections III & IV can be merged into one discussion)
  - i. Provide feedback regarding the participant’s progress in the behavioral change (using homework assignments as a measure of change).
  - ii. Discuss overall progress as well as progress over the past month.
  - iii. Example scenarios
    1. Much progress: “I see here you have attended all your weekly/monthly Workshop sessions. That is

fantastic! You should be very proud of your accomplishment. Sticking with a physical activity program is very difficult, and you have done very well. I can also see from your homework tasks that you are making some changes in your (eating patterns, etc). How do you feel about your progress?"

2. Mediocre progress: "It seems that you have missed a few sessions over the past few months, but overall you seem to be getting the hang of it. How do you feel about your progress?"
3. Very little progress: "It seems that you have not attended your Workshop sessions regularly. Is this accurate (I want to make sure my records are accurate)? Would you say that changing some of your health behaviors is not a priority for you? [at this point, you may proceed to 'problem solving.']

IV. Discuss motivational concepts (self-efficacy);

1. Objective: to enhance the participant's confidence in her ability to make health behavior changes. This can be done by using the below structure as a guide for discussion topics.
2. Performance accomplishments (this is the most powerful source of perceptions of capabilities and, thus, should be emphasized.
3. Objective: discuss mastery experiences and improvement with the participant.

V. Verbal persuasion

A. Objective: provide ample verbal encouragement to enhance the participant's confidence in her ability to maintain her physical activity program.

VI. Explore social-environmental factors

- A. Social support: are the participant's significant others supportive of her participation in the study? Do they encourage her to attend sessions? Does the participant feel included in the group? Does the group offer any sort of motivation?
- B. Environment
- C. Physical/built environment (e.g., access to facilities)
- D. Weather

VII. Barriers

VIII. Review Contract

IX. Salutation

“Thank you very much for your time. It has been a pleasure speaking with you and discussing your Successful Aging health education program. I hope I was helpful in developing means to overcome barriers and resolving the issues we discussed. Please feel free to contact me if you have any questions.”

**10.11.9. Successful Aging Workshop Debriefing Protocol**

- 1) *Thank* them for their participation.
- 2) *Debrief*. Explain the value of their dedication to the study.
  - a) **“Your participation was very important. Your Workshop assignment will help us assess how people maintain their health compared to people who got intensive physical activity training. We will also learn if weekly classes helped people live healthier lives in areas other than exercise.”**
  - b) Inquire about satisfaction with their experience in the Workshops.

If response is negative: Empathize with their feelings (frustration or disappointment). Reinforce the value of their condition & their important contribution to the field.

If response is positive: reinforce their satisfaction and the benefits they experienced.

***NOTE: Section below is OPTIONAL & determined by individual sites***

- 3) *Review* the Optional Plan mentioned at Orientation and Randomization visits  
They would have the option of getting written information and referral resources on physical activity.
- 4) *Ask* Participant to make their decision. Do they want the Optional program?
  - a) If they say **NO**:  
*Acknowledge and accept* their answer.  
*Thank* them profusely for their participation.  
*Inform* them that when the study results are ready, they will be invited to an info session.  
*Offer* a T-shirt or other thank-you gift.
  - b) If they say **YES to optional information**:  
*Structure* Initial Plan

- Assess prior physical activity history and current physical activity patterns.
- Review safety considerations.

*Explain* Resource Guide and Stretching Tips

*Demonstrate* Digiwalker and Calendar and their importance for regular exercise.

## **10.12 Intervention safety**

### **Overview:**

The safety of the participants will be our major concern in the LIFE trial. Safety screening for morbid conditions, protection against potential risks, safety precautions and the data safety monitoring plan are all components of participant safety. For the intervention we have developed specific criteria and protocols for suspending or stopping physical activity and have developed a protocol to adjust the program for intercurrent illness. We have developed specific documentation forms reporting adverse events that occur during the interventions. Subjects will also be instructed on self-monitoring of signs and symptoms of possible emergent conditions. The Medical Safety Committee will serve as early monitor of adverse experiences and ensure standardization of clinical practice and safety issues across all sites.

- A. Center based interventions will be conducted at a central location and all sessions will be conducted and supervised by trained interventionists, who will monitor potential adverse experiences and symptoms. During the physical activity sessions an automated external defibrillator (AED) is available. Practice codes are conducted with staff every other month to handle medical emergencies. On-site staff, including a study interventionist, trained in advanced cardiac life support, will be available to deal with medical emergencies. Also, institutional and community EMS services will be activated if needed. During each center-based visit, subjects will sign an attendance sheet and log any health-related problems or symptoms they are experiencing. These sheets will be reviewed by intervention staff before physical activity's initiated. They will also be queried about any pertinent medical events using the attached list of question to be asked at each center visit by the intervention staff (See LIFE Study Intervention Health Check). As indicated previously, participants will be taught the importance and proper method of warming-up prior to and cooling-down following structured activity sessions. If at any point during a physical activity session, participants develop chest pain (including chest discomfort or pressure, left arm pain, or report indigestion or stomach discomfort), shortness of breath, or dizziness, they will be instructed to rest and to contact the center and their physicians if these symptoms persist or recur with further exercise. During the center-based training sessions, we will monitor blood pressure, heart rate and symptoms to identify participants who may

show abnormal responses to physical activity (i.e., decrease in diastolic blood pressure ( $\geq 20$  mm Hg); increase in systolic blood pressure to  $\geq 250$  mm Hg or in diastolic blood pressure  $\geq 115$  mm Hg; frequent premature ventricular contractions; a resting heart rate  $\geq 120$  bts./min or increase in heart rate  $\geq 90\%$  of age predicted maximum). These individuals will be instructed to see their physicians before continuing with the physical activity program. Currently blood pressure and heart rate are monitored **before and after** the walking activity at each center-based intervention session, and **during** the walking at **weekly** intervals. To enhance safety, blood pressure and heart rate are monitored **during** the walking at **each** center based session in participants who had experienced any of the following during a previous physical activity session:

- Resting blood pressure systolic  $\geq 200$  mm Hg or diastolic  $\geq 100$  mm Hg
- Decrease in diastolic blood pressure  $\geq 20$  mm Hg during the activity
- Increase in systolic blood pressure to  $\geq 250$  mm Hg or in diastolic blood pressure  $\geq 115$  mm Hg during the activity
- Resting heart rate  $\geq 120$  bts./min or  $\leq 45$  bts./min
- Increase in heart rate  $\geq 90\%$  of age predicted maximum
- Unusual or severe shortness of breath
- Chest pain including chest discomfort or pressure, left arm pain, report of indigestion, or stomach discomfort
- Palpitations
- Light headedness, dizziness or feeling about to faint
- A physical activity session had to be discontinued because of other symptoms excluding musculoskeletal symptoms (e.g., knees, ankles, hips) reported by the participant.

\*If participants exhibit hypertensive responses, exaggerated heart rate responses, or symptoms with exercise (See BP guidelines Ch. 10, p 198), they will be referred to their PCP for follow up and blood pressure and heart rate will be subsequently monitored during exercise at all onsite physical activity sessions.

**B.** We have developed several mechanisms to standardize exercise intensity across sites for the dual purposes of maintaining the fidelity of the intervention and ensuring participant safety. The primary mechanism for maintaining intervention fidelity will utilize the subjective evaluation of perceived exertion (RPE). The primary mechanism for ensuring participant safety will be clinical observation of symptoms during exercise, including chest pain/discomfort (including chest discomfort or pressure, left arm pain, or report indigestion or stomach discomfort), palpitations, significant shortness of breath and lightheadedness. In addition, assessment of heart rate and blood



pressure during an exercise session will be obtained weekly during the center-based phase of the trial. As an additional mechanism, exercise training sessions will be terminated if the exercising heart rate is observed to be greater than 90% of age-predicted maximal heart rate. The participant will subsequently be reevaluated for medical contraindications to exercise and re-assessment of their exercise intensity goals. These steps will assist in standardizing the joint goals of “moderate” exercise during the physical activity intervention and ensuring participant safety.

- C. In an effort to ensure the safety of participants during unsupervised exercise in the Maintenance Phase, participants should be provided with the following letter when they transition into this phase.

To: LIFE Study Research Participant

From: [Site PI, Program Coordinator, Intervention Staff]

Re: Participant Safety Guidelines for Home Exercise

Thank you for participating in the LIFE research study. Your continued involvement in this study is important to us. In order to minimize any risk and ensure that your experience in this study is safe and enjoyable as you exercise your own, we ask that you follow these guidelines:

1. Inform the research staff if you have any changes in current medical conditions, or if your medications have changed. If you are not scheduled to see a staff member, please call [contact number(s) for intervention staff].
2. Be careful to follow all instructions from the study personnel.
3. Be mindful of any **NEW** or increased joint or muscle discomfort during or following exercises. While some discomfort is common when duration and/or intensity of exercise is increased, persistent or severe pain may require attention. Please call [names and contact numbers for intervention staff] if this occurs.
4. Inform your Primary Care Physician as soon as possible if you notice any of the following during a physical activity session:
  - A. Unusual or severe shortness of breath
  - B. Severe or increasing chest pain (including chest discomfort or pressure, left arm pain, or report ingestion or stomach discomfort)
  - C. Light headedness / Dizziness

If you feel the situation to be an emergency, call 911 and arrange for immediate medical treatment. Please also notify [names and contact numbers of intervention staff].

5. Please report any falls that you have, to the staff, regardless of the cause. You may note this on your Home Activity Log and tell the assessor during your quarterly call or clinic visit.
6. If you have Diabetes, notify your Primary Care Physician if you develop signs or symptoms associated with “hypoglycemia” or low blood sugar during exercising at home. These signs and symptoms may include: “feeling faint”, a rapid pulse rate, excess sweating, or confusion. You are also encouraged to regularly monitor your blood sugar during the course of the study, which includes your home based exercise. You may also call [names and contact numbers of intervention staff] and should note this information on your Home Activity Log.

If you have any questions regarding these instructions for physical activity safety, please feel free to contact [names and contact numbers of intervention staff] or [name and contact number of medical safety officer].

## LIFE Study Intervention Health Check

### IMPORTANT!

Since your last visit – have you?

✓ Seen your Doctor or been hospitalized:

✓ Changed any medications:

- Dosage or brand?
- Stopped taking a current medication?
- Added a new medication?

✓ Experienced:

- Chest discomfort or angina?
- Rapid or irregular heartbeat?
- Shortness of breath or dizziness?
- Weight gain greater than 4 lbs.?
- Swelling of both ankles?
- Increased fatigue with usual activity?
- Any other problem or symptom?

If so, please report to the staff.

Have a good physical activity session.

Procedures to minimize discomfort include warm-up and cool-down activities that include cycling and flexibility exercises. The participants will also be introduced to the intervention exercises in a structured way, such that they begin with lighter resistance and gradually increase over the course of the first 2-3 weeks of the intervention. During the intervention visits, participants will be supervised at all times and instructed on correct physical activity techniques. Participants will be instructed to talk with the interventionists about any muscle soreness.

Because persons with diabetes or peripheral vascular disease may be participants in the LIFE trial, and these conditions increase the risk for foot ulceration, use of proper footwear during physical activity's essential for all participants. Where applicable, affected participants should also be taught to inspect their feet. The use of silica gel or air midsoles is to be encouraged, as is the use of polyester or cotton-polyester blend socks to keep the feet dry and prevent blisters. Participants should also be taught to inspect their feet for blisters and other damage daily. For participants with severe peripheral neuropathy, or the presence of a foot ulcer, non-weight-bearing physical activity's recommended, such as swimming and bicycling. For participants with severe neuropathy, walking for more than 30 minutes should be avoided.

Physical activity can provoke hypoglycemia in individuals with type 2 diabetes although this risk is limited to those receiving insulin, sulfonylurea, repaglinide or nateglinide. All participants in LIFE who have diabetes receive education on the risk of hypoglycemia. Participants who have diabetes will be required to perform self-monitoring of blood glucose before and following physical activity sessions during the first month of training to determine the effect of physical activation blood glucose. After this initial monitoring, regular monthly checks of blood glucose response to physical activity will be recommended but not required. Participants are encouraged to review this information with their PCP or with the LIFE medical staff. Persons on these medications are noted by intervention staff. In the event of an episode of faintness or altered mental status, immediate safety procedures include supervised assistance to a seated or lying state, offer sweetened beverage and provide constant observation until episode has resolved. Field sites will have glucometers and intervention staff will be trained on their use for those participants unwilling to perform their own self-monitoring. Physical activity should be postponed if blood glucose is > 240 mg/dl or <80 mg/dl. In participants with blood glucose < 80 mg/dl, physical activity can be initiated if provision of an adequate high carbohydrate "snack" can restore blood glucose to >100 mg/dl.

As described in Chapter 22, the LIFE study has defined an adverse event as an unanticipated problem involving risks to study participants and others. The LIFE study has further defined adverse events into several categories of occurrences: serious adverse events, unexpected adverse events, and unfavorable medical events that occur at the intervention or assessment site. Certain adverse events may be protocol-defined outcomes (i.e., myocardial infarction). Of particular note to the intervention staff is that in the LIFE study, adverse events include **"all unfavorable medical events that occur at the intervention site"**.

Interventionists should refer to Chapter 22 for specific guidelines on adverse event reporting.

In the LIFE trial, a participant reporting an adverse event to any staff person at any time is reported on an adverse event form. This might occur when a participant spontaneously telephones the clinic or speaks to intervention staff during an intervention visit, to cite two examples. In these and similar instances, the unmasked study staff will be responsible for identifying, recording, and, if required, dealing with these events. Safety-related events will be reported in a timely fashion as required by the Data Safety Monitoring Board and the individual Institutional Review Boards responsible for the protection of human subjects (see Chapter 22).

To prevent a potential bias in the outcomes database, the interventionists and other staff reporting or managing spontaneously reported adverse events at unscheduled times will not at any time communicate information regarding these events to masked study assessment personnel responsible for collecting outcome data at scheduled data collection times. Participants should be instructed not to contact the assessment clinic to report events.

If a participant misses an intervention visit for successful aging or physical activity for reasons that are not serious, the missed visit is recorded only on the appropriate missed visit form. If the reason for the missed visit meets the criteria for a serious or unexpected adverse event, an Adverse Event form is completed and forwarded to the Medical Safety Officer. Any adverse event which occurs at the intervention site is recorded on the Adverse Event form and forwarded to the Medical Safety Officer.

### **10.13 Intervention forms**

**Overview:** The following data collection forms are described in this section:

1. Tracking system format
2. LIFE health/symptoms letter
3. LIFE Physical Activity Session: Center
4. LIFE Physical Activity Session: Home
5. LIFE missed physical activity form
6. LIFE “successful aging” attendance tracking
7. LIFE Suspended Status

#### **10.13.1 Instructions for implementing new physical activity forms**

The following instructions are to be used to implement the new center based and home base physical activity data collection forms.

##### **Center-based:**

These forms can be implemented gradually with the study participants. The goal is to train study participants to record as much of their own individual physical activity session as possible. It may be necessary to shorten the physical activity sessions during this time to present the new forms. Over the course of the first

three center-based sessions that the new forms are used the interventionist should do the following:

**Session 1:**

1. Announce to the group during the first session that a new form is being used to collect their individual information and should make this easier for the whole group.
2. Show the participants the form. Attached are sample forms, indicating how the forms are to be completed by the participant. It is suggested that these be posted at the clinic sites.
3. During the first session the interventionist will likely record the information on the form but begin to instruct the participant in how and where specific information should be recorded.

**Session 2:**

1. Now that the participants are aware of the new form, the interventionists should allow participants to fill out their own individual forms and these can be reviewed for completeness and accuracy during and at the end of the session by the intervention staff.

**Session 3:**

1. Again, the participants will complete the data collection forms with some oversight by the staff.
2. Following completion of the session (recommend finishing 10 minutes early), the interventionists should congratulate the participants on completing and working with these new forms and briefly review them, while allowing time for questions and answers.

**Home-based logs:**

At the beginning of the month, on the day that the home-based logs are turned in for the previous month, it is recommended that the physical activity session be terminated early to allow for about 10 to 15 minutes to introduce the new home-based forms. The interventionists should convey the message that these forms are new and improved and should be much easier for the participant to record their programmed physical activity. An example of the correct way to complete the home based logs is provided and can be posted and/or given to each participant. The interventionist should enter in each participants Acrostic, the verified by line, and the date the form is distributed in the appropriate boxes. In addition, interventionists should take this time to reinforce, in an enthusiastic manner, how important completing these forms is to the process of changing their behavior. Inform participants that you look forward to reviewing the activity that they report on these forms—it is a lifeline between the two of you!

Key points to mention regarding the home-based logs:

1. With the exception of the daily step counts, we only want structured activity to be reported on the form (different from the previous form). So for each date they should record (1) the number of minutes walked (offsite) in their walking program, (2) whether they completed their flexibility program, (3) the strength training program (record data on knee

- extension but remind them that they need to perform all of the strength training exercises), and (4) the balance training (indicate the level).
2. Again remember to emphasize that they need to record a step count every day and that the remainder of the form is to be used for the minutes walked in their walking program and the rest of the home-based exercises included in the LIFE physical activity intervention (strength, flexibility, and balance).

### **10.13.2 Tracking system**

The tracking system will have 5 forms (windows). These include: (1) a demographic card; (2) a physical activity session card, (3) a behavioral counseling card, (4) an attendance card for lectures/information sessions, and (5) a telephone contact card. The structure for each of these forms is as follows:

- 1. Demographic Card (Information collected at assessment clinic)**
  - \* Name
  - \* Address
  - \* Gender
  - \* Years of Education
  - \* Age
  - \* Contact Information
  - \* Baseline EPESE Score
- 2. Physical activity Session card**
  - \* Date
  - \* Attendance (yes/no)
  - \* If attendance is no, then reason for not attending (pull down menu)
  - \* Steps from Pedometer
  - \* Physical activity RPEs
  - \* Clinical Notes (text field)
- 3. Behavioral Counseling Card**
  - \* Type of Session (pull down menu: initial individual session, group session, make-up session, extra visit)
  - \* Date
  - \* Attendance [yes/no (drop-drop box to selection reason for an absence)]
  - \* Completed Homework (yes/no)
  - \* Logs for Physical Activity (type of activity, frequency, duration, pedometer steps)
- 4. Lectures/Information Sessions**
  - \* Date
  - \* Attendance [yes/no (drop-drop box to selection reason for an absence)]
  - \* Topic (drop down: introduction, FITT principle, exercise vs. physical activity)

## **5. Telephone Contact Card**

- \* Date
- \* Contact Completed
- \* Physical activity log information (type, frequency, duration, pedometer steps)
- \* Progress Rating (drop down: 0 = inactive; 1 = active, but below goal; 2 = meeting goals; 3 = exceeding goals)
- \* Clinical Notes

### **10.13. 3. Health/Symptoms Letter**

The draft letter below will be given to all physical activity participants at the beginning of the study to alert them to any signs and symptoms that should be reported to the intervention staff.



To: LIFE research participant:  
Re: Participant Safety

Thank you for participating in the LIFE research study. Your involvement in this study is important to us. In order to minimize any risk and ensure that your experience in this study is safe and enjoyable, we ask that you follow these guidelines:

5. Inform the research staff if you have any changes in current medical conditions, or if you have altered your medications.
6. Be careful to follow all instructions from the study personnel.
7. Be mindful of joint or muscle discomfort during or following exercises. While some discomfort is common in the first few weeks of exercise, persistent or severe pain may require attention.
8. Inform the research staff immediately if you notice any of the following during an physical activity session:
  - A: Unusual or severe shortness of breath
  - B: Severe or increasing chest pain (including chest discomfort or pressure, left arm pain, or report indigestion or stomach discomfort)
  - C: Light headedness, dizziness or feeling about to faint
- If these symptoms present themselves while you are not under the supervision of the laboratory staff, always notify your primary care physician as soon as possible. If you feel the situation to be an emergency, call 911 and arrange for immediate medical treatment.
5. If you have Diabetes, you should notify the research staff if you develop signs or symptoms associated with “hypoglycemia” or low blood sugar. These signs and symptoms may include: “feeling faint”, a rapid pulse rate, excess sweating, or confusion. You are also encouraged to regularly monitor your blood sugar during the course of the study.

If you have any questions regarding these instructions for physical activity safety, please feel free to contact us at any time.

Study Coordinator:

Interventionist  
Principal Investigator:  
Physician

#### 10.13.4 Physical Activity Training Procedures

1. All forms should be completely filled by the end of each training session. Prior to physical activity all participants should be asked about changes in their health status using the questions listed below. If they respond in the affirmative to any of these questions, clarification should be sought from the study medical monitor before the physical activity session is initiated.

#### LIFE Study Intervention Health Check

#### IMPORTANT!

Since your last visit – have you?

✓ Seen your Doctor or been hospitalized:

✓ Changed any medications:

- Dosage or brand?
- Stopped taking a current medication?
- Added a new medication?

✓ Experienced:

- Chest discomfort or angina?
- Rapid or irregular heartbeat?
- Shortness of breath or dizziness?
- Weight gain greater than 4 lbs.?
- Swelling of both ankles?
- Increased fatigue with usual activity?
- Any other problem or symptom?

If so, please report to the staff.

Have a good physical activity session.

2. All study intervention staff and medical monitors should be provided with the following information on contraindications to physical activity and they should be used as guidelines to determine participant safety for exercise:

### **Contraindications to exercise**

- Unstable angina
- Resting systolic blood pressure of  $\geq 200$  mm Hg or resting diastolic blood pressure of  $\geq 100$  mm Hg should be evaluated on a case-by-case basis
- Orthostatic blood pressure drop of  $> 20$  mm Hg with symptoms
- Critical aortic stenosis (peak systolic pressure gradient of  $> 50$  mm Hg with an aortic valve orifice area of  $< 0.75$  cm<sup>2</sup> in an average size adult)
- Acute systemic illness or fever
- Uncontrolled atrial or ventricular arrhythmias
- Uncontrolled sinus tachycardia ( $\geq 120$  beats·min<sup>-1</sup>)
- Sinus bradycardia ( $< 45$  beats·min<sup>-1</sup>)
- Uncompensated congestive heart failure
- 3° AV block (without pacemaker)
- Active pericarditis or myocarditis
- Recent embolism
- Thrombophlebitis
- Resting ST segment displacement ( $> 2$  mm)
- Uncontrolled diabetes (resting blood glucose of  $> 300$  mg/dL)
- Severe orthopedic conditions that would prohibit exercise
- Other metabolic conditions, such as acute thyroiditis, hypokalemia or hyperkalemia, hypovolemia, etc

3. Be sure to determine heart rate and blood pressure (see protocol below for heart rate and blood pressure assessment). Heart rate and blood pressure will be determined before and after physical activity at all clinic visits. In addition, heart rate and blood pressure will be determined during the walking portion of the training protocol at weekly intervals. This measurement will be obtained when the mid-physical activity (second) RPE measure is collected during the walking exercise. During the center-based training sessions, we will monitor

blood pressure and heart rate to identify participants who may show abnormal responses to physical activity(i.e., resting blood pressure systolic  $\geq 200$  mm Hg or diastolic  $\geq 100$  mm Hg; decrease in diastolic blood pressure ( $\geq 20$  mm Hg); increase in systolic blood pressure to  $\geq 250$  mm Hg or in diastolic blood pressure  $\geq 115$  mm Hg; frequent premature ventricular contractions; a resting heart rate  $\geq 120$  bts./min or  $\leq 45$  bts./min, or increase in heart rate  $\geq 90\%$  of age predicted maximum). These individuals are instructed to see their physicians before continuing with the physical activity program. An adverse event form should be generated if these abnormalities occur.

### **Schedule of Blood Pressure and Heart Rate Monitoring**

<b>Blood Pressure and Heart Rate</b>	<b>Schedule</b>
Resting	At each center-based session
During walking*	Weekly (mid-physical activity)
After walking	At each center-based session

\*If participants exhibit hypertensive responses, exaggerated heart rate responses, or symptoms with exercise (See BP guidelines Ch 10, p. 198), they will be referred to their PCP for follow up and blood pressure will be subsequently monitored during exercise at all onsite physical activity sessions.

### **Blood pressure protocol**

Patients should be seated for at least 5 min in a chair with their back supported and their arms bared and supported at heart level. Patients should refrain from smoking cigarettes or ingesting caffeine during the 30 min preceding the measurement. Under special circumstances, measuring supine and standing positions may be indicated

Wrap cuff firmly around upper arm at heart level; align cuff with brachial artery. The appropriate cuff size must be used to ensure accurate measurement. The bladder within the cuff should encircle at least two-thirds of the upper arm. Many adults require a large adult cuff. Place stethoscope bell below the antecubital space over the brachial artery. Quickly inflate cuff pressure to 20 mmHg above estimated systolic BP. Slowly release pressure at rate equal to 2 to 3 mmHg/s, noting first Korotkoff sound (SBP). Continue releasing pressure, noting when sound becomes muffled (4th phase diastolic BP) and when sound disappears (5th phase diastolic BP). For classification purposes, the latter is used. If abnormal, wait 5 minutes and repeat the measurement. Record the second value on the exercise session form. At all other time points (during exercise, after exercise), a single blood pressure reading should be made. The exercising and recovery blood pressure measurements should be taken immediately after the participant stops or has completed their walking protocol.

### **Radial Pulse (Heart Rate) Protocol**

For the resting pulse measurements, be sure that the participant has been resting for a minimum of 5 minutes. If the first resting pulse measurement is

abnormal, repeat the measurement and record the second reading. The exercising and recovery heart rate measurements should be taken immediately after the participant stops or has completed their walking protocol. Have the participant turn their palm upward. Palpate the radial pulse with your index and middle fingers. Use the stopwatch to count the pulse for 30 seconds and record the number of beats in 30 seconds. After completing the radial pulse, multiply the number of beats recorded in 30 seconds by two and record the data on the form.

#### **Blood Pressure and Heart Rate Safety Alerts:**

	<b>Systolic</b>	<b>Diastolic</b>	<b>Heart Rate</b>
<b>Resting</b>	$\geq 200$ mm Hg	$\geq 100$ mm Hg	$\geq 120$ bts./min. or $\leq 45$ bts./min.
<b>Exercise</b>	$\geq 250$ mm Hg  decrease $\geq 20$ mmHg	$\geq 115$ mm Hg	$\geq 90\%$ age-predicted max HR

4. Indicate on the form where the walking physical activity is to take place (treadmill, track, community, or other).
5. Ensure that the pedometer is affixed to the person and that it is working properly (see protocol for pedometer use). During center base training, record the pedometer “steps in “ and “steps out” on the data collection form.

#### **Pedometer protocol:**

These instructions should be given to each participant the first time they use their pedometer during the training protocol:

1. Begin wearing your step counter the day following your orientation.
2. Put it on in the morning when you get ready for the day.
3. Make sure it is set at “0” after you put it on in the morning.
4. Wear the step counter all day.
5. Take it off before you go to bed at night.
6. At the end of each week record the number of steps completed and reset your pedometer to “0”.
7. If you did anything out of the ordinary please make a note of it in the appropriate “notes” box.
  - a. Example: I walked around at the zoo today.
  - b. Example: I was sick all day.

**Note:** For some older participants, particularly individuals with a slow gait speed, the pedometers may not function properly. If a participant is not generating counts from their pedometer, several alternative strategies can be attempted. First, the research staff can try attaching the pedometer more distally on the

participant's lower leg or ankle. If the participant finds the pedometer burdensome or it becomes a disincentive to walk because it does not accurately record the steps of the participant, then it should be discontinued. An appropriate alternative for "goal setting" in participants who cannot use a pedometer can be the time completed for each walking session.

6. During the participant's walk be sure to collect the RPE data at the prescribed intervals, and at completion of the walk. (Note: If a participant walks less than 30 minutes, RPEs will be collected at 20 minutes and completion). In addition heart rate and blood pressure are to be obtained during the mid (second) RPE collection during the first training session of each week.

#### **Instructions for the RPE scale:**

These instructions should be read to the participant prior to the start of exercise. Perceived exertion will be obtained during the walking program to assess the participants overall perceived effort (central and peripheral) and during the strength training to assess their effort at the level of the working muscles involved in the activity (local RPE). The target RPE goal for the walking is 11-13 and for strength training is 15-16. The RPE measurements during strength training should be reported as a single number representing both legs at the end of the second set of repetitions for each particular exercise. In order to not bias RPE reporting, every attempt should be made to query and record individual participant RPE data confidentially whenever possible.

- You are now going to take part in your physical activity program and you will be walking and performing some strength training exercises.
  - During exercise, I will also want to know how hard you are working so you will be looking at a scale containing numbers from 6 to 20 – these will be used to rate your perception of physical exertion..
  - When you do this for the walking part of the program, I want you to think about the total feeling of exertion in your overall body, including your breathing, and muscles.
  - When you do this for the strength training (leg weights) part of the program, I want you to think about the feeling of exertion in the muscles that are lifting the weights (local rating).
  - When looking at this scale, I want you to think of a 6 as no exertion at all. So if you were to rate your perception of exertion right now – you would assign that a 6.
7. Immediately upon completion of the walk, determine heart rate and blood pressure see attached protocol for measurement of resting heart rate and seated blood pressure.
  8. Upon completion of the walk record the time, distance covered, and number of pedometer steps.

9. Record the weight, RPE score, and whether each strength training physical activity is completed
10. Record whether the stretching exercises are completed.
11. Record which balance level the participant is performing and record whether the balance physical activity was completed.
12. Enter and appropriate notes relevant to the participant's training session.

**Missed Physical Activity Form**

If a participant misses a scheduled physical activity session, this form is to be completed.