The Diabetes Prevention Program's
*Lifestyle Change Program*

**Manual for**

**Contacts after Core**

**Section 7 Part 2 of 4**

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Outlines for Lifestyle Classes after Core

Physical Activity Topics
Getting Ready for a Walking Event.

Class Overview

In this class, participants will prepare for and participate in a group walking event. For example, the class might register as a team for a charity walk-a-thon in your community (such as one sponsored by the American Diabetes Association). Or different participants at different skill levels may want to register for different events. Another option would be to choose an event ahead of time and advertise the class to participants accordingly (for example, “Come train with us to walk the xxxx”). Or plan your own DPP Walk, with prizes (e.g., DPP t-shirts and water bottles) for all who participate. Or your center might team up with another DPP center to hold a DPP Walk on the same date. Modify the session outlines and handouts accordingly.

Session 1: Ready, Set, Go
Participants will share their reasons for wanting to walk in a community event, will learn how to buy walking shoes, and will practice various stretches suitable for the event.

Session 2: Training Goals
Participants will identify the walking event they plan to train for and develop training goals.

Session 3: Nutrition During Training
Participants will receive general guidelines for the appropriate type and amount of food and fluid recommended before, during, and after exercise.

Session 4: Cross Training
Participants will learn how to incorporate other types of exercise into their training program.

Session 5: Pre-Event Day Planning
Participants will learn what to expect on the day of the event and how to plan properly beforehand.

Session 6 (optional): Party to celebrate completion of the event.
Notes to the Lifestyle Coach:

Participant safety is the highest priority. Because not all lifestyle participants receive a stress test, **the DPP cannot endorse any physical activity more strenuous than brisk walking**. For example, participants should not be encouraged to run or jog. If individual participants wish to begin running, they should meet with the exercise specialist at your center for a personal screening beforehand. However, a group event should be open to all participants, which means that the physical activity should be walking.

In addition, **the focus of the event should be the participation, not the competition**. Emphasize having fun, building team spirit, and supporting one another so that everyone finishes the event (that is, don’t focus on competition or coming in at first, second, or third place). One way to do this is to promise, when you advertise the class and the walking event to participants, that the DPP staff who participate will be the last people to finish (or the last in the DPP team if it is a community walking event). That is, assure participants that no one will be left behind or come in last.

(Because of unavoidable technical terms and large words, the reading level of some of the handouts for this class is as high as the 7th grade. Be careful to review the key information on the handouts aloud in simple terms and make sure participants understand how to use the information, particularly those who have lower literacy skills.)
Session 1: Ready, Set, Go

<table>
<thead>
<tr>
<th>Objectives:</th>
<th>Participants will share their reasons for wanting to walk in a community event, will learn how to buy walking shoes, and will practice various stretches suitable for the event.</th>
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<tbody>
<tr>
<td>Materials needed:</td>
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<tr>
<td>C Handouts:</td>
<td>Training Diary, Keep It Safe (handout from the Being Active: A Way of Life session in the Core Curriculum), Focus on Flexibility; Dressing for Winter Exercise; Rain, Foul Weather, and Night Walking; Walking Gear: Choosing a Rain Jacket; The Ultimate Shoe Buyer’s Guide; What Makes It a Walking Shoe?</td>
</tr>
<tr>
<td>C</td>
<td>Water bottle, stack of dark colored construction paper, bucket, felt tip pens or markers, scissors.</td>
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When you advertise the class to participants, emphasize the noncompetitive nature of the event (see note above).

Before the session, tell participants to come dressed comfortably (prepared to practice stretches), to bring the shoes they are now using for walking, and **not** to buy new shoes before the session.

1. **Explain the purpose of the class:** to give participants a chance to prepare for and participate in a community walking event. Emphasize that the overriding purpose is to have fun, build team spirit, and support one another so that everyone is able to finish the event and stay under the upper limit of their target heart range. Explain that the DPP staff who participate in the event promise to be the **last** people to finish (or the last in the DPP team). That is, participants need not worry about being left behind or coming in last.

2. **Review the topics, schedule and locations** for each session.

3. **Have participants share their reasons for wanting to walk in a community event and any past walk event experiences.** Ask them to discuss the positive aspects of walking in an event (such as the experience of team spirit, training for a challenge, working together to support a good cause). Also discuss the satisfaction of taking on the challenge of finishing a walking event. (Note: By listening to their experiences, the Coach will be able to define the skill level of participants.)
4. **Give participants the Training Diaries.** Explain the purpose of the diary: to help them track their progress and determine their level of readiness for walking a particular distance. Give an example of an entry or two in the diary so that participants understand the meaning of the categories. For example:

Day: Monday  
Time of day: 6 pm  
Weather: mild, sunny, humid, windy?  
Distance walked: 1.5 miles  
Other activity: biked  
Time: 25 min.  
Distance/time: 15 min.  
Stretch: Before ±  
Course: hilly, flat, street, dirt trails?  
Health: sore foot, head cold, what’s being done about an illness/injury (such as wore a brace, medication taken)?  
Sleep: hours slept, time went to bed and woke up, normal, restless?  
Comment: felt sluggish, heavy, peppy, started too fast, tired at the end, trouble with hills?

Ask participants to practice recording the activity they did today or yesterday. Check their records and answer any questions/correct any problems they may have in recording. Instruct participants to begin recording their physical activity in the diary during the coming week. **Stress the importance of staying below their upper target heart rate.** Review how to calculate their upper target heart rate (which was covered in Session 13: Jump Start Your Activity Plan), and have participants calculate theirs and record it on their diaries:

1. Subtract your age from 220. (220 - __ = ____ )
2. Multiply the result of Step 1 by 0.7. This is the high end of the target. ( ____ x 0.7 = ___ beats/minute)

Divide by 4 to get beats per 15 seconds or by 6 to get beats per 10 seconds.

5. **Briefly review the handouts, Dressing for Winter Exercise; Rain, Foul Weather, and Night Walking; and Walking Gear: Choosing a Rain Jacket.** (You may choose not to distribute these if not applicable during the season in which the class is held.)

6. **Demonstrate stretches.** Review the Keep It Safe handout. Then demonstrate the stretches illustrated on the Focus on Flexibility handouts and have the participants practice them. Make note of the most important stretches (at minimum, participants should do one of the quadriceps stretches, the hamstring stretch, and one of the calf stretches). Explain that using all of the stretches on a daily basis will develop the best level of flexibility. Stress the importance of warming up and cooling down and caution participants not to rush these portions of their workout (both should last 5 to 10 minutes).
7. **Review some tips for shopping for walking shoes.** (Note: Qualify this part of the session with the fact that Nike has generously donated athletic shoes to each DPP participant, and the information provided here is designed to help participants purchase additional shoes in the future.)
   - Go to an athletic store that has a large selection and knowledgeable sales staff.
   - Shop in the late afternoon when the feet are at their largest size.
   - Have both feet measured and buy shoes that fit the larger size. Also, stand when being measured and leave about 1/2 inch (thumb’s width) from the longest toe to the end of the shoe.
   - Wear the same type of socks that will be worn while walking.
   - Be sure there is enough room for your toes to spread naturally.
   - The heel should not slip when walking.
   - Walk briskly in the store and check for tightness and rubbing. Don’t buy tight shoes and expect them to stretch.
   - Choose a shoe that fits the shape of your foot and make sure the ball of your foot fits comfortably in the widest part of the shoe.
   - Look for lightweight shoes.

   Discuss what type of questions participants should ask a shoe salesperson, such as:
   - What shoes do you have to fit my foot type?
   - What features make one shoe different from another?

   Suggest that participants bring their old walking shoes to show the salesperson the pattern of wear on their shoes. Also discuss what type of information participants should be prepared to give to a salesperson to purchase the proper shoe, including:
   - How long have you been walking?
   - How many miles do you walk per week? How long have you been using your current shoes? (Shoes should be changed about every 400-500 miles or after six months of walking, whichever comes first. Use your Training Diary to log mileage.)
   - Where do you do most of your walking?
   - How much do you weigh?
   - Are you aware of any foot problems, such as flat feet or high arches?

8. **Do a wet foot test.** Explain that a “wet foot test” is a good way to identify the type of walking shoe participants may need. Ask the participants to take off one of their socks and shoes, then have them wet the bottom of their bare foot using the water bottle (place a bucket under the foot to catch excess water). Then instruct participants to place their wet foot on a piece of dark construction paper on a hard floor. The imprint left will show
them their foot type (have them trace the imprint with a marker before it dries and/or cut the imprint out using a scissors).

9. **Define pronation.** (Note: Depending on the group, you may want to avoid this term altogether and just discuss “how much our feet roll inward” or “flat feet versus high arches.”) Point out that many guides to buying walking shoes use the term “pronation.” Pronation is the **how much our feet roll inward** as they strike the ground. It is a normal and natural part of walking, and it’s a good thing in that it helps the foot absorb the shock of impact. But if the foot rolls too far inward or not enough inward, injuries can result.

**Overpronation:**
- The foot rolls too far inward.
- The wet foot imprint is flat and wide with no arch shown (a flat foot).
- Look for a motion control shoe (straight shape that gives maximum support to your foot and a firm midsole and heel counter). Note: These shoes are those with the most stars for pronation in the Ultimate Shoe Buyer’s Guide.

**Underpronation:**
- The foot rolls inward only a little.
- The wet foot imprint is very slight and curved, showing mostly the ball and heel of the foot but very little of the middle (a high arch).
- Look for a soft, cushioned midsole to absorb shock and a curved or semicurved shape that allows your feet to roll inward as you walk.

10. **Go around the room and help participants determine their foot type.** Point out that participants may want to take their foot imprint with them when buying walking shoes. Remind participants that they should purchase the shoes that are well-made and comfortable, not buy based on color or style.

11. **Give participants The Ultimate Shoe Buyer’s Guide and What Makes It a Walking Shoe.** Point out that, on The Ultimate Shoe Buyer’s Guide, the rating system for pronation is for overpronators. That is, overpronators will want to look for shoes with the most stars in this category.

12. **Summarize main points from this session. Assign home activity:**
   - Begin recording physical activity in the Training Diaries. (Stress the importance of getting practice taking their heart rate and doing the stretches. Ask participants to bring in any related questions to the next session.)
   - Look in the newspaper or local fitness magazine for a walk of interest to them (if the class has not already decided on a walk).
   - Buy walking shoes, if necessary.
Session 2: Training Goals

Objectives: Participants will identify which walking event they plan to train for (if not already identified) and develop training goals.

Materials needed:
C Handouts: Schedule of upcoming walking events (from a local fitness magazine or sports section of a local newspaper), DPP Training Calendar, sample training schedules, blank Training Diaries.
C Pencils.

Before the session:
C Comment in writing on the participants’ Training Diaries from the previous week.

1. Briefly review the main points of the last session and collect completed diaries. Ask if any participants bought walking shoes, have questions or comments on taking their heart rate or doing the stretches. Answer any questions.

2. Explain purpose of this session: to select a walking event (if not already identified) and define training goals to prepare for that event.

3. If walking event has not yet been identified: Have participants refer to the schedule of upcoming walking events, and briefly discuss which events in particular are of interest to them. Identify which participants are interested in walking the same event, so they can support each other during training if they want to. Also ask participants if they are interested in putting together their own walking event.

4. Give participants the Training Calendars. Have them fill in the blanks at the top for their name, event title, distance, and date, training start date (within the next day or two), and deadline for entry fee/application.

5. Explain how to develop training goals. A training program involves setting individualized, short-term goals that will help participants complete the walking event of their choice. Participants will use their training calendars to plan and carry out these goals. Stress that training goals should be specific (for example, increase distance walked by 1/2 mile within 2 weeks, by February 22).

Remind participants that their Training Diaries will help them prepare to meet their goals. Reviewing past diaries will help them see what is realistic for them in terms of progress (for
example, how long did it take to comfortably increase distance by 1/2 mile while staying below their upper target heart rate?).

6. **Refer to the Sample Beginner/Intermediate Training Schedules.** Emphasize that building endurance is essential to gain physical strength and mental confidence as a walker. Endurance is the key to a good training program. For beginners, developing endurance can take 2 months or longer. Time or distance should be increased slowly, at a pace that is comfortable and realistic for the participant based on previous Training Diaries. **Instruct participants to individualize the training schedules based on their own current level of fitness.** The schedules provided are simply examples.

   Intermediate walkers can build on the time or mileage base they have already established by occasionally walking longer routes than usual. For variety, they may also want to add light speed work and hills (see Intermediate Training Schedule) if they are careful to stay below their upper target heart rate.

   (Note: A Sample Advanced Training Schedule is attached but should be given only to carefully selected participants who can easily walk 60 minutes or more and express a desire to challenge themselves in the long-term by training to walk a half-marathon. Beginning and intermediate walkers may find it motivating to know that walkers do participate in marathons; however, a specific training schedule for this level may be discouraging to them.)

7. **Have the participants develop and record their own training goals.** Ask participants to pencil in several training goals for the coming month on their Training Calendars, using the sample training schedules and their past Training Dairies as a guide. Emphasize that these goals can be revised based on experience.

8. **Assign home activity:**
   - **C** Continue to complete the Training Diaries. (Distribute additional copies if participants need them.) Write your training goals on the Training Calendars. Try to reach the goals you set for the coming week(s).
   - **C** Get a map of the event course. Walk at least part of the course by foot and look at the remainder from a car or bike, if possible.
Session 3: Nutrition During Training

Objectives: Participants will receive general guidelines for the appropriate type and amount of food and fluid recommended before, during, and after exercise.

Materials needed:

Before the session:
- Comment in writing on the participants’ Training Diaries from the previous week.

1. Briefly review the main points of the last session, collect completed diaries, and return previous diaries with comments. Ask how participants are doing at meeting their training goals and if participants walked part of the course for the event they are training for. Answer any questions.

2. Explain purpose of this session: to provide guidelines for what to eat and drink before, during, and after exercise.

3. Begin with the concept of food as an energy source (fuel). Review the common nutrients available for fuel (carbohydrates, fats, protein), which type of foods contain these energy sources, and the recommended amount that should be eaten from each source.
   - Carbohydrates (60%): fruits, vegetables, breads/grains;
   - Fats (25%): added fats (salad dressing, margarine, butter, mayonnaise), fats used in food preparation, and fats in meats and dairy products;
   - Protein (15%): fish, chicken, beans.

4. Explain to participants that the best type of food to eat during training is one that is high in carbohydrate and low in fat. Carbohydrates are easier to digest, while giving you the energy you need to make your muscles work (for exercise). Foods that are classified as high-fat proteins (hamburgers, cheese, peanut butter) tend to stay in the stomach longer and can cause discomfort.

5. Describe the four main purposes of eating a pre-exercise meal:
   - Helps prevent fatigue and feeling light-headed that results from being low on fuel (low blood sugar).
   - Helps settle the stomach by absorbing gastric juices, and satisfies feelings of hunger during exercise.
   - Helps fuel the muscles used during exercise, especially when eaten far enough in
advance to be digested and stored (ready to use as fuel).
C Helps ease your mind because you know you are properly “fueled” for exercise.

6. Review the “What to Eat Before Exercise” handout.

7. Explain the importance of drinking plenty of fluids. Describe the function of fluids: help efficiently carry the body’s “fuel” to your working muscles, eliminate waste products, and control body temperature by cooling the body down (through sweating).

8. Review the “Fluid Tips” handout. The general guideline is for everyone to drink 8 (8-oz.) glasses of fluid per day, half of which should be water.

9. Distribute blank Training Diaries and Keeping Track booklets. Assign home activity:
   C Continue training and recording progress in Training Diary.
   C Drink more fluids (goal = 8 glasses per day).
   C Keep track of foods eaten and look for a pattern in the types of foods and times eaten that affect their walking performance.
Session 4: Cross Training

Objectives: Participants will learn how to incorporate other types of exercise into their training program.

Materials needed:
- Handouts: Why Cross Train?, Cross Training Activities, blank Lifestyle Balance Problem Solver worksheets (or other action plan worksheets), blank Training Diaries.

Before the session:
- Comment in writing on the participants’ Training Diaries from the previous week.

1. Briefly review the main points of the last session, collect completed diaries, and return previous diaries with comments. Ask how participants are doing at meeting their training goals and if they made any changes in their food or fluid intake related to their training since the last session. Answer any questions.

2. Explain purpose of this session: to provide guidelines for how to incorporate other types of exercise into a training program.

3. Ask participants to share which type of activities they are currently using for exercise other than walking.

4. Ask participants how they would define cross training. Get feedback on what they perceive it to be. Do they believe it to be something difficult? Something they have interest in doing?

5. Define cross training (if appropriate, use some of their thoughts and examples): a system of incorporating many activities in one’s “exercise calendar” in order to achieve Total Body Fitness (cardiovascular (aerobic) fitness, muscular strength, muscular endurance, and flexibility).

6. Review the “Why Cross Train?” and “Cross Training Activities” handouts. As the benefits of cross training are reviewed, ask participants to give applicable examples from their own experiences, talk about the various activities they enjoy and why, and how they can incorporate cross training into their weekly/monthly exercise routine.

7. Assign home activity:
- Continue training and recording progress in Training Diaries.
C  If desired, make an action plan to add at least one other type of exercise, in addition to
walking, to your exercise routine. (Remind participants that they should stay below their
upper target heart rate no matter what type of aerobic activity they do.)

Distribute blank Training Diaries if needed.
Session 5: Pre-Event Day Planning

Objectives: Participants will learn what to expect on the day of the event and how to plan properly beforehand.

Materials needed:
- Handouts: Pre-Event and Event Day Checklist, Pre-Event Day Tips, Event Day Tips, DPP Training Calendar, blank Training Diaries.

Before the session:
- Comment in writing on the participants’ Training Diaries from the previous week.

1. Briefly review the main points of the last session, collect completed diaries, and return previous diaries with comments. Ask if participants cross trained during the week and if so, what their experiences were like. What barriers did they experience? Briefly problem solve and answer any questions.

2. Explain purpose of this session: to provide guidelines for planning before the event.

3. Emphasize the importance of starting early with event preparation. Early planning can help eliminate distracting pre-event details. Preparation should begin weeks or months before an event and does not end until the end of the event. Remind participants that using their DPP Training Calendar will help with their planning.

4. Review the “Pre-Event and Event Day Checklist.” Discuss the time-line order in which items are arranged on the list, and emphasize the most important points. Explain that participants should begin their checklist the day they decide to enter an event. The first item is to send in the entry fee early. By checking this item off, participants can see their commitment in writing.

5. Review the “Pre-Event Day Tips,” which expands on some of the items on the checklist, such as becoming familiar with and making a mental and physical plan for the course. Stress the importance of becoming familiar with the course. By this session, participants should know which event they are walking. Ask who among them has had a chance to walk the course of their event. For those who respond “no,” urge them to make the time and effort to do so.

As you discuss planning mental and physical strategies and review the examples on the handout, drive home the point that being familiar with the course is essential to both. Ask participants to give their own examples of negative thoughts and physical barriers related to
the event they are planning for. Have the group brainstorm some possible strategies.

Discuss planning your walking pace. Review each example of walking pace designs and ask participants which one they think will be best for them. Remind participants that they can create their own pace design based on these suggestions. Also, emphasize that a pace design is best if it is created based on the course (again, being familiar with the course is essential).

6. Review the “Event Day Tips.” Participants should review this handout again on the day of the event.

7. Reiterate that pre-event day planning is critical to reaching your training goals and finishing the event.

8. Assign home activity:
   - Continue training and recording progress in Training Diaries.
   - Use the checklist and handouts from this session to prepare for their events.
   - Suggest that participants also review all of the materials given to them at previous sessions before their event.

Distribute blank Training Diaries if needed.

9. Wish participants well on their events. And ask them if they want to meet one more time at a later date.

   For example, Session 6 might be a potluck, party, or review session on a date when some or most of the participants will have completed their events. At that time, ask everyone what they learned during their event, what they would do differently next time, and so on. Or if everyone is participating in the same event, have a party at the finish line (or meet at a restaurant after the event).

   This would be a good time to get participants started planning for their next event, or if they don’t wish to plan for another event, to make action plans for continuing to stay active.
# DPP Training Diary

Name ________________________

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<thead>
<tr>
<th>Week</th>
<th>Stay below my upper target heart rate of ___ beats per ___ seconds.</th>
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<tr>
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<td>Day: _______ Time of day: _____ Weather: ____________</td>
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<td>Distance walked: _______ Time: ____________</td>
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<td>Other activity: _______________ Distance/time: ____________</td>
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<td>Stretch: Before 9 After 9 Course: ________________</td>
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<td>Health: _______________ Sleep: ________________</td>
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<td>Comments: __________________________________________________</td>
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## Summary

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<tr>
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<th>Total distance:</th>
<th>Total time:</th>
<th>Weight:</th>
<th>Longest walk:</th>
<th>Day(s) off:</th>
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Goals for next week:

Lifestyle Balance
Classes After Core
Dressing for Winter Exercise.

Don’t let the cold and snow keep you from being active outside. The key is in what you wear.

First of all, don’t overdress. Even a moderate workout will make you feel that it’s 30 degrees warmer than it really is. So dress for 50 degrees when it’s 20 degrees out there. If you’re properly dressed, you’ll feel chilly for only the first 5-10 minutes, then more comfortable as your body produces heat.

What to look for when you buy winter exercise clothing

§ **Warmth.** Your muscles need to stay warm to prevent injuries and cramping. Your clothes should keep heat from escaping.

§ **Dryness.** You will still sweat even though it’s cold. Your clothes should wick away moisture from your skin and dry quickly, so you don’t feel wet and clammy.

§ **Lightness.** Some fabrics are featherweight yet keep you warm.

§ **Wind Protection.** A nylon or performance shell will keep the wind from blowing through your other clothes. Without a protective jacket, you’ll feel the chill of the wind no matter what else you wear.

§ **Dress in layers.** Layers insulate by trapping warm air between them. Also, you’ll be able to take layers off as you warm up.

First Layer: Should wick away sweat, and keep you warm and dry. Look for Polypropylene (in tops and leggings), Capilene or Thermax (in socks and long underwear). Avoid cotton; it traps moisture and makes you feel cold.

Second Layer: Wool sweater, synthetic turtleneck or a pile jacket. Sweatpants or tights (nylon blended with lycra) for your legs. Leg warmers or thermal underwear if it’s really cold.

Outer Layer: A waterproof jacket that is windproof yet breathable. Look for Gore-Tex and Thintech. An ordinary windbreaker will work for a short workout.

Hats: Wear one! Most of your body heat will escape through the head.

Mittens: Mittens are warmer than gloves because they keep your fingers together. There’s less surface area from which heat can escape.

Shoes: Look for shoes with traction for walking on snow. Also, take smaller steps to help prevent injury.
Rain, Foul Weather, and Night Walking.

Here are some tips for being active during rain, foul weather, and at night.

**Waterproof Fibers**

Look for a waterproof and breathable fiber. GoreTex® is the best for extreme weather. It’s guaranteed to stay waterproof for the life of the garment. For drizzle, you can find less expensive jackets and pants made of breathable, water-repellant fabrics such as Tactel® and Taslan,® or microfibers.

**Rain Jackets**

A foul weather jacket should stop below the waist or at the hips to prevent exposure to the wind and rain. Avoid tight or restricting elastic at the hips or waist.

You'll need vents in the jacket to let vapor escape if your jacket isn't made of a breathable fiber. Otherwise, you'll feel like you're walking in a garbage bag.

Sleeves should be long to protect your hands from the elements. Look for Velcro®, elastic, or snap fastenings at the wrist.

You’ll want pockets on your jacket to hold keys, etc. Look for pockets with a waterproof zipper or Velcro® closure and a storm flap to protect the contents.

**Rain Pants**

Look for rain pants with elastic and a drawstring at the waist for the best fit.

Foul weather pants should have at least a 10-14" zipper on the outside of the legs. This will let you take the pants on and off without taking off your walking shoes.

**Night Walking**

For walking at night, wear something to alert drivers to your presence. Scotchlite® is a reflective material that returns light back to its source. It can be found on jackets and exercise tights.

You can also buy Velcro® bands and vests made of Scotchlite.® These can be strapped on over regular walking clothes. To make you the most visible, add reflection to the areas with the most movement, such as your legs and arms.
# DPP Training Calendar

Name: ___________________  Event Title, Date, and Distance ____________________________

Training Start Date __________  Deadline for Entry Fee/Application ________________

(Month ________________ Year)

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<th>Sunday</th>
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<td></td>
</tr>
</tbody>
</table>
# Sample Beginners Training Schedule.

For those who are just beginning a walking program.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day 1 (minutes)</th>
<th>Day 2 (minutes)</th>
<th>Day 3 (minutes)</th>
<th>Day 4 (minutes)</th>
<th>Day 5 (minutes)</th>
<th>Day 6 (minutes)</th>
<th>Day 7 (minutes)</th>
<th>Weekly Total (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Short</td>
<td>Average</td>
<td>Short</td>
<td>Average</td>
<td>Short</td>
<td>Long</td>
<td>Off</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>10</td>
<td>5</td>
<td>15</td>
<td>Off</td>
<td>50</td>
</tr>
<tr>
<td>2</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>15</td>
<td>10</td>
<td>20</td>
<td>Off</td>
<td>80</td>
</tr>
<tr>
<td>3</td>
<td>10</td>
<td>20</td>
<td>10</td>
<td>20</td>
<td>10</td>
<td>25</td>
<td>Off</td>
<td>95</td>
</tr>
<tr>
<td>4</td>
<td>15</td>
<td>25</td>
<td>15</td>
<td>25</td>
<td>15</td>
<td>30</td>
<td>Off</td>
<td>125</td>
</tr>
<tr>
<td>5</td>
<td>15</td>
<td>30</td>
<td>15</td>
<td>30</td>
<td>15</td>
<td>35</td>
<td>Off</td>
<td>140</td>
</tr>
<tr>
<td>6</td>
<td>20</td>
<td>35</td>
<td>20</td>
<td>35</td>
<td>20</td>
<td>40</td>
<td>Off</td>
<td>170</td>
</tr>
<tr>
<td>7</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>40</td>
<td>20</td>
<td>45</td>
<td>Off</td>
<td>185</td>
</tr>
<tr>
<td>8</td>
<td>25</td>
<td>45</td>
<td>25</td>
<td>45</td>
<td>25</td>
<td>50</td>
<td>Off</td>
<td>215</td>
</tr>
</tbody>
</table>

Note:
- C Start on any day of the week, but follow the sequence given.
- C Stay below your upper target heart rate. You should be able to talk easily while walking.
- C Each week, try to add five minutes to the “average” and “long” walk days. Add minutes to the “short” days more slowly. If you want, you can make Day 7 a “short” walk day instead of taking it off.
- C Be consistent to become a successful walker. Walk on most or all days of the week.
Sample Intermediate Training Schedule.

For those who can easily walk at least 30 minutes.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day 1 (minutes)</th>
<th>Day 2 (minutes)</th>
<th>Day 3 (minutes)</th>
<th>Day 4 (minutes)</th>
<th>Day 5 (minutes)</th>
<th>Day 6 (minutes)</th>
<th>Day 7 (minutes)</th>
<th>Weekly Total (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>15</td>
<td>25</td>
<td>15</td>
<td>25</td>
<td>15</td>
<td>30</td>
<td>Off</td>
<td>125</td>
</tr>
<tr>
<td>2</td>
<td>15</td>
<td>30</td>
<td>15</td>
<td>30</td>
<td>15</td>
<td>35</td>
<td>Off</td>
<td>140</td>
</tr>
<tr>
<td>3</td>
<td>20</td>
<td>35</td>
<td>20 Hills*</td>
<td>35</td>
<td>20</td>
<td>40</td>
<td>Off</td>
<td>170</td>
</tr>
<tr>
<td>4</td>
<td>20</td>
<td>40</td>
<td>20 Speed work**</td>
<td>40</td>
<td>20</td>
<td>45</td>
<td>Off</td>
<td>185</td>
</tr>
<tr>
<td>5</td>
<td>25</td>
<td>45</td>
<td>25 Hills*</td>
<td>45</td>
<td>25</td>
<td>50</td>
<td>Off</td>
<td>215</td>
</tr>
<tr>
<td>6</td>
<td>25</td>
<td>50</td>
<td>25 Speed work**</td>
<td>50</td>
<td>25</td>
<td>55</td>
<td>Off</td>
<td>230</td>
</tr>
<tr>
<td>7</td>
<td>30</td>
<td>55</td>
<td>30 Hills*</td>
<td>55</td>
<td>30</td>
<td>60</td>
<td>Off</td>
<td>260</td>
</tr>
<tr>
<td>8</td>
<td>30</td>
<td>60</td>
<td>30 Speed work**</td>
<td>60</td>
<td>30</td>
<td>65</td>
<td>Off</td>
<td>275</td>
</tr>
</tbody>
</table>

C Start on any day of the week, but follow the sequence given.
C Stay below your upper target heart rate.
C Each week, try to add five minutes to the “average” and “long” walk days. Add minutes to the “short” days more slowly. If you want, you can make Day 7 a “short” walk day instead of taking it off.

* Add variety by walking on hilly courses as well as flat ones. Walking up hills will make your heart work harder, so check your heart rate (stay under upper limit).
** Speed work is adding short bursts of speed during a walk. For example, walk faster than usual to a landmark in the near distance, such as a traffic sign. Recover by walking at your normal pace or slower for a while. At first, try adding one speed burst during a short walk, then add another one during a walk next week. (Stay below your upper heart rate even during speed work.)
Sample Advanced Training Schedule.

For those who can easily walk 60 minutes and want to prepare to walk a half-marathon.

<table>
<thead>
<tr>
<th>Week</th>
<th>Day 1 (minutes)</th>
<th>Day 2 (minutes)</th>
<th>Day 3 (minutes)</th>
<th>Day 4 (minutes)</th>
<th>Day 5 (minutes)</th>
<th>Day 6 (minutes)</th>
<th>Day 7 (minutes)</th>
<th>Weekly Total (minutes)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>30 Fast</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>1 hour</td>
<td>Off</td>
<td>270</td>
</tr>
<tr>
<td>2</td>
<td>35 Fast</td>
<td>45</td>
<td>50</td>
<td>45</td>
<td>45</td>
<td>1 hour 15 min.</td>
<td>Off</td>
<td>295</td>
</tr>
<tr>
<td>3</td>
<td>40 Fast</td>
<td>45</td>
<td>55</td>
<td>45</td>
<td>45</td>
<td>1 hour 30 min.</td>
<td>Off</td>
<td>320</td>
</tr>
<tr>
<td>4</td>
<td>30 Hills</td>
<td>45</td>
<td>1 hour</td>
<td>45</td>
<td>45</td>
<td>1 hour 45 min.</td>
<td>Off</td>
<td>330</td>
</tr>
<tr>
<td>5</td>
<td>45 Fast</td>
<td>45</td>
<td>1 hour 10 min.</td>
<td>45</td>
<td>45</td>
<td>2 hours</td>
<td>Off</td>
<td>370</td>
</tr>
<tr>
<td>6</td>
<td>35 Hills</td>
<td>45</td>
<td>1 hour 20 min.</td>
<td>45</td>
<td>45</td>
<td>2 hours 20 min.</td>
<td>Off</td>
<td>390</td>
</tr>
<tr>
<td>7</td>
<td>50 Fast</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>120</td>
<td>2 hours 40 min.</td>
<td>Off</td>
<td>465</td>
</tr>
<tr>
<td>8</td>
<td>40 Hills</td>
<td>45</td>
<td>1 hour 30 min.</td>
<td>45</td>
<td>45</td>
<td>3 hours 5 min.</td>
<td>Off</td>
<td>450</td>
</tr>
<tr>
<td>9</td>
<td>50 Fast</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>1 hour 45 min.</td>
<td>3 hours 30 min.</td>
<td>Off</td>
<td>500</td>
</tr>
<tr>
<td>10</td>
<td>45 Hills</td>
<td>45</td>
<td>2 hours</td>
<td>45</td>
<td>45</td>
<td>4 hours</td>
<td>Off</td>
<td>540</td>
</tr>
<tr>
<td>11</td>
<td>50 Fast</td>
<td>45</td>
<td>45</td>
<td>45</td>
<td>2 hours</td>
<td>4 hours 30 min.</td>
<td>Off</td>
<td>575</td>
</tr>
<tr>
<td>12</td>
<td>40 Hills</td>
<td>45</td>
<td>1 hour 40 min.</td>
<td>45</td>
<td>45</td>
<td>3 hours</td>
<td>Off</td>
<td>455</td>
</tr>
<tr>
<td>13</td>
<td>40 Fast</td>
<td>45</td>
<td>1 hour 30 min.</td>
<td>45</td>
<td>45</td>
<td>2 hours</td>
<td>Off</td>
<td>385</td>
</tr>
<tr>
<td>14</td>
<td>30 Fast</td>
<td>45</td>
<td>40</td>
<td>45</td>
<td>45</td>
<td>Half-Marathon</td>
<td>Off</td>
<td>205</td>
</tr>
</tbody>
</table>

(continued on next page)
Notes for the Sample Advanced Training Schedule:

- Start on any day of the week, but follow the sequence given.
- Stay below your upper target heart rate.
- On the “fast” walks, you should be breathing hard (still below your upper target heart rate, though). Take quick steps and bend your elbows at 90 degrees.
- For the “hills” walks, find a rolling course.
- Note that in weeks 7, 9, and 11, the medium walks are done on the day before the long walks. This is to build endurance.
- The long walks are to build stamina. These can be broken into two walks during the day, provided you meet the total time.

For a list of walkable marathons, send a self-addressed stamped envelope to:
  Walkable Marathons
  WALKING Magazine
  9-11 Harcourt St.
  Boston, MA 02116

The list available as of April 1997 is attached.

What to Eat Before Exercise.

**Choose foods low in fat and high in carbohydrate.**

(Examples: bagels, pasta, bread, English muffins.) Small amounts of low-fat protein foods are also okay before exercise. (Examples: a turkey sandwich, fruit with low-fat cottage cheese, cereal with skim milk and a banana.)

**Eat high-carbohydrate meals daily.**

That way you’ll have fuel ready to use when you need it. Eating an hour before exercise may relieve hunger, but it won’t give you energy right away.

**Stay away from sugary foods within an hour of intense exercise.**

(Examples: soda, syrup, large amounts of fruit juice.) Eating sugary foods may leave you tired and light-headed during exercise. If you do happen to eat sweets 5-10 minutes before exercise, go ahead as planned. In most cases, the body will not have enough time to react to the sugar and cause fatigue.

**Give your body enough time to digest the food you eat before you exercise.**

Low-calorie meals are best because they leave the stomach quickly. Adapt the guidelines below using your own experience. That is, listen to your body. Also, keep track of the foods and times you are eating. Look for a pattern in what affects your walking performance.

<table>
<thead>
<tr>
<th>Meal Size (calories)</th>
<th>Example Meal</th>
<th>Digestion Time</th>
</tr>
</thead>
<tbody>
<tr>
<td>Large (700-800)</td>
<td>Pancakes with syrup and berries, cereal with low-fat milk</td>
<td>3 - 4 hours</td>
</tr>
<tr>
<td>Small (200-400)</td>
<td>Small bowl of cereal with low-fat milk</td>
<td>2 - 3 hours</td>
</tr>
<tr>
<td>Snack (100)</td>
<td>Banana</td>
<td>&lt; 1 hour</td>
</tr>
</tbody>
</table>

**Allow more time for digestion before more intense exercise.**

Otherwise, you may experience stomachache, nausea or vomiting.

**Before a morning event, you may feel too nervous to eat.**

In this case, make sure to eat well the day (especially the night) before.
Fluid Tips.

How much to drink

It is recommended that everyone drink at least eight (8-ounce) glasses of fluids per day. That’s 2 quarts. At least half of these 2 quarts should be water.

Try to get in this habit:
- Drink 1-2 glasses of fluids with each meal.
- Drink 1 glass mid-morning, mid-afternoon, and evening.

This is in addition to fluids you drink right before, during, and after walking.

In hot weather, be sure to drink more than what your thirst tells you to drink.

What to drink

Water is the best fluid by far. It’s cheap. It’s easy to find. It’s easy for the stomach to absorb.

Food is another fluid source. You can get about one-third of your daily fluid needs from food. Good sources include bananas, oranges, tomatoes, cucumbers, and lettuce.

Avoid caffeine and alcohol. These cause you to urinate more often and lose fluids.

Cold fluids cool you off faster. They also empty faster from your stomach.

Sports drinks aren’t needed. Eating properly and drinking enough water before a walk will give you all the energy you need. (If you do try a sports drink, practice first. Don’t try one on the day of an event. It might not sit well in your stomach.)

Watch the calories. It takes about a mile of brisk walking to burn the calories in one 8-ounce glass of regular soda, milk, or juice (about 100 calories). Gatorade is about 50 calories per 8 ounces. Your best bet is to reach for water at zero calories.
Why Cross Train?

Cross training is doing two or more kinds of exercise on a regular basis.

Here’s why many people cross train:

To get a balance of health benefits.

Some activities keep your heart and lungs in shape. Others work certain muscles. Others keep you flexible. No one kind does it all.

To keep the heart and lungs in shape.

Activities that keep your heart and lungs healthy include walking, swimming, and cycling. Stay under your upper target heart rate.

To work muscles in a balanced way.

Choose activities that work opposing groups of muscles. This helps prevent injuries. For example, walking works the back thighs. Add cycling, and you also work the front thighs.

To keep injuries from getting worse.

For example, what if you hurt your ankle while walking? Try a lower impact activity, such as swimming, until your ankle is healed.

To add a change of pace.

No one likes to stay active if it’s boring. Vary the kind of activities you do. Create some new goals and challenges for yourself. Learn something new.

To lose weight.

You’re more likely to lose weight if you find several activities you like and will stick with for the long run.
Cross Training Activities.

Here are some ideas of what to add to your walking program. Other activities are fine, too. Choose ones you like. Be creative.

### Aerobic Dance

| C | Develops balance. |
| C | Keeps you flexible. |
| C | Strengthens muscles. *(Step aerobics works the front thigh and balances nicely with walking which uses the back thigh.)* |
| C | Keeps lungs and heart in shape. *(Low impact aerobics is less stress on the body than step aerobics.)* |

Low impact aerobics can give you a good workout when you add upper body movements to raise your heart rate to the upper end of your target range.

**Note:** Wear shoes made for aerobic dancing.

### Stair Climbing Machine

| C | Non-impact |
| C | Keeps lungs and heart in shape. |
| C | Works the front thigh muscles. *(This improves your stride length for walking.)* |

Note: For the best result, avoid leaning on the rails of the machine. Also, pump your arms like you do when you walk. *(This takes balance, so wait until you’re confident using the machine.)* Finally, keep your feet flat on the pedals to avoid hurting your lower legs.

### Cycling

| C | Strengthens the front thighs and shins when toe clips are used on the pedals. |
| C | Keeps hips and knees flexible. |
| C | Builds leg speed for walking. |

### Swimming

| C | Non-impact. |
| C | Causes the least amount of stress of any cross training activity. |
| C | Good choice if you have an injury. |

| C | Strengthens the upper body, which may be neglected in walking. |
| C | Stretches the back thigh and hip muscles, which usually tighten with walking. |
| C | Keeps ankles flexible. |
| C | Uses breathing techniques that can help you breathe properly when you walk. |
Pre-Event and Event Day Checklist

Several weeks before the event

___ Enter the event *early*.
___ Make a mental plan for the course.
___ Make a physical plan for the course.
___ Walk, bike, and/or drive the event course.

Several days before the event

___ Plan what to wear on event day. Start with your feet (shoes, socks) and work up to your head. Plan for the weather.
___ Pack extra walking clothes (shoes, socks, shorts, shirt, etc.). Also pack clean clothes to change into after the event.
___ Consider packing some Vaseline (for chafing), bandages (Band-aids, braces or elastic support bandages for injuries), safety pins, towels, locks, soap, toilet paper, and/or plastic bags for wet clothing.
___ Double check the event time and place.

Day of the event

___ Wake up at least 3 hours before the start time. Have a light pre-event meal at least 3 hours before as well.
___ Get a current weather report in the morning. Change what you wear if needed.
___ Arrive at the event site early.
___ If possible, pick up your number days before the event or at least one hour before. You’ll avoid long lines and feeling pressed for time. Pin your number on right away so you won’t lose it.
___ Put away your outer layers (sweats, jackets) before reaching the starting line.
___ Make a final restroom stop well before the start of the event.
___ Take any final safety precautions. For example, put on any braces/bandages you need for support. Put on sun screen lotion well before start time.
___ Drink plenty of fluids up to 10 - 15 minutes before the start during warmer days. For a short event in cold weather, 1 cup of water, 20 minutes before the start, is enough.
Pre-Event Day Tips

1. Walk, bike, and/or drive the course before the event. This can help you:
   - Learn your strengths and weaknesses.
   - Plan ahead for mental and physical challenges.
   - Conquer an obstacle on event day rather than fear it.
   - Be less threatened by the event itself.

2. Make a mental plan for the course. Plan positive responses to negative thoughts.
   Example: By walking the course ahead of time, you know there are steep hills.
   - Negative thought: I’m not sure I can make it up this hill.
   - Positive response: I can make it up the hill if I start up slow. I know it will be easier on the way down.

3. Make a physical plan for the course.
   Set short-term goals you can reach. These will help you feel successful and prevent mental fatigue.
   Example: Break the route into segments, using landmarks and/or mile markers. Note any barriers in each segment. Plan for them.

<table>
<thead>
<tr>
<th>Segment</th>
<th>Barriers</th>
<th>Plan</th>
</tr>
</thead>
<tbody>
<tr>
<td>0-1 mile</td>
<td>Series of hills</td>
<td>Shorten stride and arm swing going uphill. Lengthen stride a little and keep knees relaxed going downhill.</td>
</tr>
<tr>
<td>1-1.5 miles</td>
<td>Fatigue from hills</td>
<td>Focus on good form. Relax.</td>
</tr>
<tr>
<td>1.5-2.5 miles</td>
<td>Keeping up the pace</td>
<td>Find a good rhythm. Pace myself against another walker that keeps me below my upper target heart rate.</td>
</tr>
</tbody>
</table>
Event Day Tips

**Lining Up**

C Find a place in the starting area where there are others who walk a pace similar to yours. Simply ask other walkers their pace for walking a mile (e.g., 25 minutes per mile).

C Avoid the front of the pack where the fastest walkers line up. You may find yourself getting trampled over or getting in the way of faster walkers. Or you may start the event too fast.

C Avoid the back of the pack if you are an intermediate walker. You may be frustrated by the slower pace.

C Line up with confidence. You have prepared for this event. You belong at the start line with all the other walkers.

C Look for walkers who are at your pace or slightly faster than you. Use them as guides or pacers during the first part of the event. As the event goes on, do not be afraid to pass up your “pacers” if you feel strong and confident. Or if you can’t keep up with your “pacers,” let them go and try to keep them within sight.

**“...And You’re Off”**

C The start of the event can sometimes catch you off guard if you are not ready. Be alert while standing in your starting position to avoid getting tripped up by the wave of walkers behind you.

C Keep in pace with the crowd of walkers around you until you can break away or establish your own pace.

Be patient

C Starting off too quickly can be dangerous. If you are not used to the fast pace, it is likely that you will “poop out” early.

C If you get stuck behind walkers who are slower than you, be patient. Do not speed up and weave in between the packs of slower walkers. If you try to pass others in this way, you may put yourself and others at risk for injury. You will also waste a lot of energy, both physical and mental.
Focus on Flexibility

Stretching can give you more freedom of movement to do the things you need and want to do. It can also help prevent injuries.

Warning: Experts study the way people stretch and what can cause injuries. Sometimes what was taught years ago (for example, bouncing when you stretch) is now known to be unsafe. Always consult an up-to-date and reputable source for stretching instructions. (The attached stretches were approved in 1999 by national experts in exercise physiology.)

Here are some do’s and don’ts for safe and effective stretching:

**DO**
- C Always warm up before stretching. Stretching your muscles before they are warmed up may result in injury. For example, stretch after you do your regular exercise, not before.
- C Slowly stretch into the desired position. Go as far as possible without pain. **Hold the stretch for 10-30 seconds.** The longer, the better. Relax, then repeat, trying to stretch farther, but not so far that it hurts.
- C Do each stretch 3-5 times. The total stretching session should last 15-30 minutes.
- C At minimum, do one of the quadriceps stretches, the hamstring stretch, and one of the calf stretches. (See attached.)
- C Breathe slowly and deeply during the stretches.

**DON’T**
- C Stretching should never cause pain. If it does, you are stretching too far. Reduce the stretch so it doesn’t hurt. (Mild discomfort or a mild pulling sensation is normal.)
- C Never “bounce” into a stretch. Jerking into position can cause muscles to tighten and may result in injury. Make slow, steady movements instead.
- C Don’t “lock” your joints into place when you straighten them during stretches. Your arms and legs should be straight when you stretch them but don’t lock them in a tightly straight position.
- C Don’t hold your breath.
1. Quadriceps (Front Thigh) - Standing
1. Stand upright with one hand against a surface for balance and support.
2. Flex one leg and raise your foot to your buttocks.
3. Slightly bend the supporting leg.
4. Exhale, reach down, grasp your ankle with one hand, and pull your heel toward your buttocks.
5. Hold the stretch and relax.
6. Remember to keep your knee pointed at the ground.

2. Quadriceps (Front Thigh) - On side
1. Lie on your side with your hips slightly flexed.
2. Flex one leg and bring your heel toward your buttocks.
3. Exhale, swing your arm back to grasp your ankle, and pull your heel toward your buttocks.
4. Hold the stretch and relax.

3. Inner Thigh
1. Sit upright on the floor.
2. Flex your knees and bring the heels and soles of your feet together as you pull them toward your buttocks.
3. Place your elbows on the inside portion of both upper legs.
4. Exhale, and slowly push your legs to the floor.
5. Hold the stretch and relax.

   NOTE: This stretch is more effective with your back against a wall.

4. Hamstring
1. Sit upright on the floor with both legs straight.
2. Flex your right knee and slide your heel toward your buttocks.
3. Lower the outer side of your right thigh and calf onto the floor.
4. Place your right heel against the inner side of your left thigh so that a 90 degree angle is formed between your extended left leg and flexed right leg.
5. Exhale. Keeping your left leg straight, bend at the waist, reach out toward your left ankle, and lower your extended upper torso onto your thigh.
6. Hold the stretch and relax.
7. If you can’t reach your foot, you may use a folded towel around your foot to help you do the stretch.
5. Calf
1. Stand upright 4-5 steps from a wall.
2. Step back into a lunge position so that your front leg is bent in a 90-degree angle and your back leg is straight.
3. Lean against the wall without losing the straight line of your head, neck, spine, pelvis, right leg, and ankle.
4. Keep your rear foot down, flat, and parallel to your hips.
5. Exhale, bend your arms, move your chest toward the wall, and shift your weight forward.
6. Hold the stretch and relax.

6. Calf
1. Sit upright on the floor with both legs straight.
2. Cross one leg and rest it on the opposing knee.
3. Exhale, lean forward, and grasp hold of your foot or use a folded towel.
4. Exhale, keep your extended leg straight, and pull on your foot.
5. Hold the stretch and relax.

7. Shin
1. Sit upright in a chair or on the floor with one leg crossed over the opposite knee.
2. Grasp hold on/above your ankle or heel of your foot with one hand.
3. Grasp hold of the top portion of your foot with your other hand.
4. Exhale, and slowly pull the bottom of your foot to your body (plantar-flexion).
5. Hold the stretch and relax.

8. Torso
1. Sit upright on the floor, hands behind your hips for support, and your legs extended.
2. Flex your left leg, cross your left foot over your right leg, and slide your heel toward your buttocks.
3. Reach over your left leg with your right arm and place your right elbow on the outside of your left knee.
4. Exhale, look over your left shoulder while twisting your trunk and gently pushing back on your left knee with your right elbow.
5. Hold the stretch and relax.
9. Low Back
1. Kneel on all fours with your toes facing backward.
2. Inhale, contract your abdominals, and round your back.
3. Exhale, relax your abdominals, and return to the "flat back" position.

10. Low Back
1. Lie flat on your back with your body extended.
2. Flex your knees and slide your feet toward your buttocks.
3. Grasp behind your thighs.
4. Exhale, pull your knees toward your chest/shoulders and keep your low back on the floor.
5. Hold the stretch and relax.

CAUTION: Upon completing the stretch, the legs should be reextended slowly one at a time to prevent possible pain or spasm.

11. Pectoralis (Chest)
1. Stand upright facing a corner or open doorway.
2. Raise your arms to form the letter "T" (elbows level with your shoulders).
3. Exhale, and lean your entire body forward.
4. Hold the stretch and relax.

12. Shoulder - Posterior
1. Sit or stand upright with one arm raised to shoulder height.
2. Flex your arm across to the opposite shoulder.
3. Grasp your raised elbow with the opposite hand.
4. Exhale, and gently push your elbow backward.
5. Hold the stretch and relax.
13. Shoulder - Front
1. Stand upright facing the edge of a door frame.
2. Raise your arm, flex your elbow, and place your hand on the frame.
3. Exhale, and turn away from your fixed arm as it remains on the frame, against your side.
4. Hold the stretch and relax.

14. Triceps
1. Sit or stand upright with one arm flexed, raised overhead next to your ear, and your hand resting on your shoulder blade.
2. Grasp your elbow with the opposite hand.
3. Exhale, and gently push your elbow behind your head.
4. Hold the stretch and relax.

15. Biceps
1. Stand upright with your back to a door frame.
2. Rest one hand against the door frame with your arm rotated at the shoulder, forearm extended, and your thumb pointing down.
3. Exhale, and attempt to roll your biceps so they face upward.
4. Hold the stretch and relax.
**Class Overview**

In this class, participants will learn the benefits of muscle or resistance training and some basic muscle training exercises. Participants will practice these exercises as a group and will have the opportunity to try using weights with some of the exercises.

Note: Participant safety is the highest priority. The **leader of this class must be knowledgeable and experienced in teaching resistance training** (for most centers, this will be an exercise physiologist, perhaps the exercise consultant to the center).

Notes to the leader:

- The class should be open to all participants, which means that the exercises should be basic and appropriate for beginners. Feel free, however, to tailor the level of training to more advanced participants who may be part of the class.
- The focus of the class should be on participating, not competing. Emphasize throughout the sessions that each participant should do only what is comfortable for him or her, and encourage participants to support one another at whatever level they are.
- If at any point the appropriateness of individual exercises for a particular participant is in question, additional guidance should be sought from a trained consultant, for example, from another exercise physiologist or the DPP physician.
- Remember to instruct participants before the sessions to wear appropriate clothing.
- Be sure to have various weights on hand.
- Provide water, juice, and light refreshments for during and after the sessions.
- When you advertise the class to participants, emphasize its noncompetitive nature (see note above).
Session 1: Getting Started

C Ask participants to share the reasons for their interest in muscle training.

C Ask participants if they can name some of the benefits of muscle training. Write their answers on a board or flip chart, and clarify and expand on them as appropriate. Also ask if they are aware of any guidelines for starting a muscle training routine and for progressing. Distribute copies of the attached handout, “Muscle Training,” and review the benefits and guidelines provided on pages 1 and 2. (Note: Keep the didactic portion of the class as short as possible, allowing plenty of time for hands-on practice and questions.) Answer questions.

C Depending on the time available, demonstrate some or all of the exercises and have participants try them for a small number of repetitions.

C Explain how to complete the “Muscle Training Record,” using an example.

C For homework, ask participants to practice at home the exercises that have been demonstrated and self-monitor using the “Muscle Training Record.”

Sessions 2, 3, 4, and 5: Muscle Training Practice

C Ask participants what they have learned by practicing at home.

C Review the participants’ Muscle Training Records. Answer any questions.

C Have participants practice the exercises as a group, slowly increasing the number of reps and trying weights, as appropriate. Provide plenty of individual guidance.
Muscle training.

Susan turns on the evening news and picks up a small, 3-pound dumbbell. After only about 15 minutes of simple exercises, she has strengthened and toned her chest, back, shoulders, arms, belly, and legs.

Here’s why Susan trains her muscles:

C **It keeps her looking good.** Her muscles are firm, but not bulky or large.

C **It keeps her strong.** She can carry her groceries without getting tired or sore.

C **It helps her lose weight.** At first, she might gain a pound or two from new muscle. But in the long-run, it will help her weight loss efforts.

C **It keeps her bones strong.** That helps fight off osteoporosis (weak bones).

Here’s how to start a simple muscle training routine of your own:

C **Warm up.** March in place for a few minutes, doing arm circles while you march. Do a few stretches.

C **Follow up-to-date instructions to the letter,** such as those attached. For example, you may have been taught to do sit-ups with your legs straight out. Now we know it’s important to bend your knees to prevent back problems.

C **Never lift more weight than you can handle safely.** A good way to start is by doing the exercises first without weights.

C **Move slowly and smoothly, and never hold your breath.** Breathe out and count 1-2 when you lift. Breathe in and count 1-2-3-4 when you return to a resting position. This is very important for preventing a dangerous rise in blood pressure.

C **Try to include all 10 exercises on the next pages.** Do them in the order given, working your chest and back first.

C **Do the exercises on 3 days per week.** Take a day off between workouts to allow your muscles to rest and recover, which prevents injuries.

C **Progress slowly** (see the next page).
How to progress

For muscle training exercises that use weights:

1. Do each exercise *without weights first*, to get used to the motions.

2. When you are comfortable doing an exercise 5 times without weight, add a light weight.

3. Gradually increase the number of times you repeat the exercise (“rep”) until you are comfortable doing it 12 times. Each time you complete a series of reps for an exercise, it is called a “set.”

4. If it becomes easy to complete one set, then either add weight or do another set with the same weight. Rest for 30 seconds to one minute between sets.

5. If you don’t have access to heavier weights, but feel you should be increasing the amount you lift, keep increasing the reps.

For exercises that don’t use weights (such as curl ups):

1. Gradually add reps until you can do the exercise about 20 times comfortably.

2. Then go on to the next exercise, and repeat the entire set again.

For exercises that alternate the use of arms or legs:

A set is completed once you have performed the same number of repetitions on each side.

Example: If your goal is to complete 15 reps, do 15 on your left side and 15 on your right side. If you do not do the same number of reps on each side, unequal muscle development or injury may occur.

Ask your Coach to show you the exercises on the next pages. *You can do it!*
Muscle training exercises.

1. **Chest.** *Wall Push-Up:* Stand a little more than an arm’s length from a wall. Lean forward against the wall with both hands spread. Keep your feet firmly planted. Slowly lower yourself, then push back up using your upper chest muscles.

   If this exercise becomes easy, you may want to try a *modified floor push-up.* Your hands and knees are touching the floor, with your hands slightly more than shoulder-width apart. Keeping your back straight, lower yourself until your face is one to two inches from the floor. Then push yourself up to the starting position.

2. **Back.** *One-Arm Dumbbell Row:* Stand beside a bench or chair. Place one knee and the hand of the same side of the body (for example, start with your left knee and left hand) on the bench or chair. Keep the other foot flat on the floor.

   With your free hand, hold a dumbbell at full extension with your palm facing your body and your hand lined up slightly in front of your shoulder. Slowly pull the dumbbell up to your side until it is level with your upper body, with your hand close to your hip. Then slowly return to starting position.

   When lifting, remember not to move your back or jerk the weight.
3. **Shoulders.** *Lateral Raise:* Stand. Hold your arms at your side. Lift your arms outward. Your palms should be down and your arms nearly straight (just a slight bend at the elbow). Stop when you reach shoulder level.

4. **Back of Arms.** *Triceps Press:* Stand with your arms at your side. Slowly lift one arm above your head, with the elbow bent. Keeping your elbow above your head and next to your ear, slowly lower and lift your forearm from behind your head.

Or *Triceps Extension:* Begin in the same starting position as a one-arm dumbbell row. Pull the weight up your side until it is level with your upper body. This will be the starting position. Keeping your upper arm in place, extend your forearm and hand directly behind you and then bring them back down to your side.

5. **Front of Arms.** *Biceps Curl:* Stand. Hold your arms at your side. Lock your elbows at your hips and gradually curl your arms upward. Your thumbs should be out and palms up as you go. Stop when your palms are almost to your shoulder.
6. **Belly.** *Curl Up:* Lay on your back with your knees bent, feet flat on the floor. Cross your arms in an X over your chest. (Caution: If you have neck problems, check with your Lifestyle Coach about whether this exercise is safe for you.) Slowly curl up, keeping your chin tucked in toward your chest. Start by lifting only your head and neck off the floor. Down the road, you may try lifting your upper back off the floor. It’s not necessary to go beyond lifting the middle of your back off the floor. The key is to squeeze your stomach during each rep.

7. **Back of Thighs.** *Leg Lift:* Lay on the floor on your stomach, with your arms on the floor, perpendicular to your trunk and slightly bent. Slowly lift one leg from the hip. Slowly return to resting position. Don’t bend your knees.

8. **Front of Thighs:** *Seated Leg Lift:* Sit on a chair, with your feet on the floor. Slowly lift your foot until your leg is straight, then lower.

9. **Outer Thighs.** *Outer Thigh Lift:* Lay on your side. One arm should be under your ear, straight out above your head and in line with your body. The other arm should be bent, hand flat on the floor in front of your chest. Keep your legs straight, in line with your upper body. Slowly lift and lower your upper leg.

10. **Inner Thighs.** *Inner Thigh Lift:* Assume the position for the Outer Thigh Lift. Then bend the upper leg at the knee, with the foot flat on the floor in front of the other leg. Slowly lift and lower your lower leg from the hip.
# Muscle Training Record

Use this form to record your progress.

Week starting ____________

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Lifestyle Balance
After Core Handout: Muscle Training, RT1, Page 6
Walks

One idea for an after-core class is to offer a series of interesting group walks. You may want to invite all of your after-core participants as well as some participants who are still in core but have been exercising regularly and can physically handle the walk.

For some of the walks you may want to invite a local expert (e.g., local tour guide, skiing instructor) to provide some instruction.

In general, you may want to keep the walks to a total of about 2 or 3 miles each, or shorter if the event includes touring houses, etc.

Note: These ideas could also be used for supervised activity sessions.

Example walks:
1. Tour of historic landmarks (with 15-20 minute brisk walks between each landmark) (see attached invitation for a walk like this that was done in Pittsburgh)
2. Tour of historic cemetery (with 15-20 minute brisk walks between points of interest) (ask the cemetery office for historical information or check your library)
3. Scenic hike in a park of interest. One variation: meet at a central place and walk in a different direction each evening.
4. Community walking event (benefit for charity, annual city event, etc.)
5. Bird watching walk (with 15-20 minute brisk walks between stops)
6. Snow shoeing in a scenic area (check outdoors stores for names of instructors)
7. Cross country skiing in a scenic area
8. Tree identification walk (with 15-20 minute brisk walks between stops)
9. House and/or garden tour (with 15-20 minute brisk walks between stops)
10. Wild food walk (with 15-20 minute brisk walks between stops)
11. Walk 20-30 minutes to a local restaurant, discuss how to order a low-fat meal from the menu, eat lunch, walk back
12. Before or after a mall walk, meet at a shoe store for a presentation by an expert on how to get the ideal shoe fit.
13. Race walking (have a guest speaker instruct participants and demonstrate).
14. Mountain hike
15. Wild flower walk (with guidebook or guide)
16. Walks of different distances, speeds, difficulty (e.g., an easy walk, medium, more difficult walk--might be challenging to some)
Be sure to review Section 6 in the Manual for Contacts After Core: Guidelines for Conducting Lifestyle Classes after Core, before conducting this or other after-core classes.

Note: As with other after-core classes, this class should be considered a time for participants to “restart” (resume behavior changes toward their weight loss and physical activity goals). At Session 1, participants should set goals for fat grams/calories, exercise, and weight loss to achieve during the class. All sessions should include encouragement to self-monitor, goal setting, and a brief check-in with each participant to review progress toward goals. Unlike with other classes, it may not be reasonable to weigh participants or collect self-monitoring materials at every session, depending on the location for the walk. However, a weigh-in and collection of self-monitoring materials should occur at a minimum of one of the sessions and as often as is possible. (For example, you may be able to meet before the walk at the clinic and weigh participants there, or carry a portable scale with you if there is a private place near the walk location, such as a participant’s home or a private room at a park office.)
Let’s Get Up Close and Personal with Our Heart Rate Monitors

DPP Northwestern developed a popular one-session after-core class called Let’s Get Up Close and Personal with Our Heart Rate Monitors. The invitation and outline are attached. The class was led by their exercise consultant, and six participants attended.

Feel free to call the Lifestyle Coaches at Northwestern for additional details about this class.