



# Moving Through Cancer: A Guide to Exercise for Cancer Survivors

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NOTE: Since we are not able to work with you personally, *Moving Through Cancer* does not provide individualized health and wellness advice. Use the information on exercise, stress management, relaxation, and nutrition contained in this booklet in consultation with a health care professional who is familiar with your particular health needs.

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## Start Living Well, Today!

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Have you ever wondered if there is anything you can do to decrease your stress levels, improve your ability to perform activities of daily living, and boost your immune system while you are living with cancer? Well, there is! Regular exercise, healthy eating, stress management and relaxation can help. In ***Moving through Cancer***, we will give you basic information to help you get started.

### What's In It For You?

Medical professionals, fitness professionals and physically active cancer survivors agree that performing moderate exercise, using stress management and relaxation techniques, and eating well may improve your tolerance to cancer treatment, decrease your side effects, and improve your quality of life.

#### *Benefits of Exercise*

Exercise is helpful both during and after cancer treatment. Moderate exercise during treatment improves tolerance to cancer treatment, decreases side effects, and improves sleep. Following treatment, an exercise program can improve mobility, strength, and cardiovascular fitness. Exercise need not be intense to promote these benefits.

Some of the physical benefits of exercise may include:

- Improved rest and sleep
- Improved aerobic fitness
- Improved flexibility and range of motion
- Improved muscle tone and strength
- Improved circulation
- Increased oxygen to brain and tissues
- Reduced fatigue
- Maintenance of bone density
- Weight management

The emotional benefits of exercise may include positive changes in:

- Self-esteem
- Mood, with reduced feelings of depression and anxiety
- Relaxation
- Sleep
- Feelings of independence
- Shift of focus from illness to wellness

### ***Benefits of a Healthy Diet and Adequate Fluids***

There are many studies being carried out to help us understand how diet and cancer are related. A healthy diet and adequate fluid intake can affect how a person feels during and after cancer treatment and is especially important for cancer survivors.

#### **A healthy diet during treatment:**

- Improves tolerance to cancer treatment
- Decreases side effects
- Improves quality of life
- May help slow cancer progression

Following treatment, a healthy diet is an important part of a healthy, vibrant survivorship. Some additional physical benefits of a healthy diet include:

- Maintenance or restoration of lean body mass
- Maintenance of bone density
- Management of weight
- Improved energy
- Improved digestion
- Reduced risk of cancer recurrence, chronic diseases including heart disease and diabetes, and obesity related conditions like arthritis

Like exercise, a healthy diet can have psychological benefits. With a healthy diet, you may notice positive changes in:

- Sense of control
- Sleep
- Well being

Proper fluid intake is also important to health. Hydration helps:

- Flush toxins out of vital organs
- Carry nutrients to cells
- Regulate body temperature



## ***Benefits of Stress Management and Relaxation***

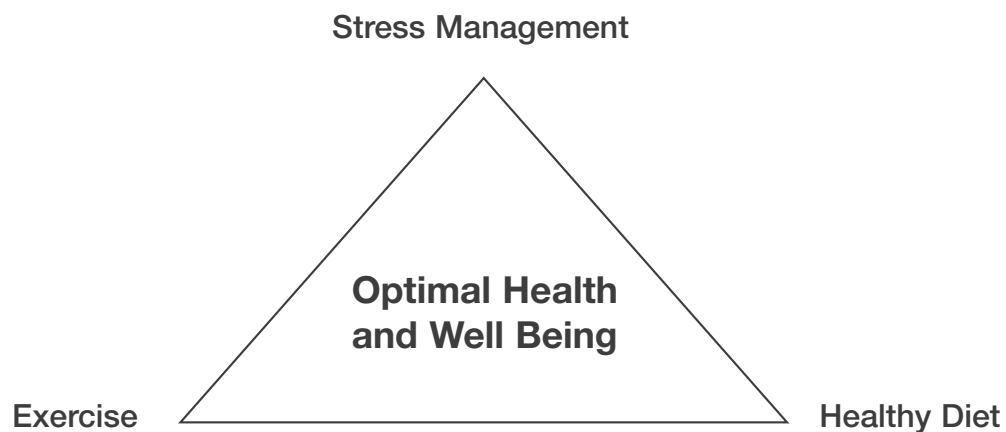
Relaxation techniques produce changes that are the opposite of those associated with the “fight-or-flight” or “stress” response. Relaxation techniques reduce the negative effects of chronic stress on our minds and bodies.

The physical effects of stress management and relaxation include:

- Decreased heart rate (pulse)
- Lowered blood pressure
- Slower and deeper respiration (breathing)
- Lower oxygen use
- Slower metabolic rate
- Decreased muscle tension
- Improved sleep
- Higher energy levels

The psychological effects of stress management and relaxation may include:

- Increased sense of control
- Decreased feelings of anxiety and depression
- Increased sense of calm
- Greater productivity
- Better concentration and memory
- Greater emotional stability
- Better overall mental health



## **Getting Started**

Here are a few pointers to help you take the first step towards your adding exercise, healthier eating and/or stress management/relaxation to your daily routine.

### ***Consult a Health Care Practitioner First***

Whether you are starting a new exercise program, changing your diet, or trying a new relaxation technique, we suggest that you check with your doctor or other health care professional, who is familiar with your health. Find out if there are special precautions you need to take or issues that you, or your instructor/trainer, need to consider. If you are going to join a program or work with a trainer, it is often standard procedure for the program director or trainer to ask for a letter from your doctor, which gives you permission to begin a new program.

### ***Start Slowly***

The key to most successful lifestyle changes is to start slowly, develop a routine that fits your lifestyle, and maintain that routine over time. This is especially true for beginning an exercise program if you are new to participating in regular exercise. Select one new activity and set an easy-to-attain goal for that activity. This new activity can be as simple as a single new exercise, the addition of a 5-minute walk to your daily routine, a change to a single meal, or 5 minutes of quiet breathing. Once you have successfully added this new activity into your lifestyle, then you can build on it until you have established your new routine.

### ***Make it Fit into Your Lifestyle***

It is easier to stick with healthy behaviors when they fit your personality and your lifestyle. Pick activities, environments, and times that fit with your current routine and personal preferences.

- Do you enjoy the solitude of exercising or doing relaxation alone or do you need a group to make it more interesting and help you stay motivated?
- Do you like to be in the privacy of your home or do you welcome opportunities to get out of your home?
- Is it easier for you to get going in the morning or is late afternoon a better time for you?
- What else do you need to make these healthier behaviors fun and interesting for you?

### ***Get the Support You Need***

You are not alone on the road to a healthier lifestyle. Exercising, doing relaxation activities, or learning about healthy eating can be opportunities to spend time with friends, family, other cancer survivors, or other supportive people. Make people a part of your new routine if you can. In addition, you may find it helpful to have the guidance of an instructor, individually or in a group. You may find a suitable program at a local health club or you can find specialized programs for people living with cancer, or other medical conditions, such as programs at the UCSF Cancer Resource Center or the UCSF PhysFit Physical Therapy Health and Wellness Center.

## **A Word of Caution**

Balance your enthusiasm for starting your new wellness regimen with a healthy dose of caution. In general, if you experience anything unusual while you are participating in an activity stop immediately. Exercise, dietary changes, relaxation, and cancer treatments all have their own particular cautions to bear in mind.

### ***Cautions for Exercise***

During exercise, stop immediately if you experience unusual symptoms such as shortness of breath, chest pain, dizziness, muscle pain, clamminess, headaches, irregular heartbeat, excessive sweating, or any joint or limb pain. If these persist, then contact your doctor.

### ***Cautions for Dietary Changes***

It is important to discuss the dietary changes that you are thinking about making with your doctor or registered dietitian. Making significant changes to your diet without understanding the effects on your overall health can cause more harm than good. There is no one size fits all model for a healthy diet so make sure to consider your individual needs.

### ***Cautions for Relaxation Training***

Relaxation is safe for most people. Some techniques, such as guided imagery and progressive muscle relaxation, are routinely taught to people who are coping with chronic or life threatening medical conditions. Nevertheless, each relaxation technique has its own physical and psychological requirements and effects that may make it an unsuitable technique for you to use. If you experience difficulty breathing, a faster heart rate, racing thoughts, or feelings of anxiety while you are doing a relaxation technique, then stop that technique immediately. If these feelings persist, then consult your doctor.

### ***Effects of Cancer Treatments***

Cancer treatment may be damaging to normal tissue and normal body functions and affects individuals differently. Don't be surprised if you continue to feel the effects of treatment once treatment is over. Some symptoms may take months to go away. And some of the complications from treatment may not appear for months, or even years. It is important to listen carefully to your body, and to communicate with your health care provider or exercise specialist any changes or unusual symptoms. These changes may be slight or severe and may affect an individual for a day, or long term. Contact your doctor if you experience fever, unusual or excessive fatigue or weakness, chest pain, irregular heart beat, unusual bleeding, sudden weight loss, severe vomiting or diarrhea, fainting, blurred vision, pale skin, or night pain. Adjustments to exercise can be easily made and will help ensure your safety.

## And You're Off!

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*Moving Through Cancer* is filled with helpful hints on how to incorporate exercise, stress management, relaxation, and a healthy diet into your current routine. We have also included some references for you at the end of this booklet. We hope that you find something that works for you. Good luck!

### Exercise with Cancer

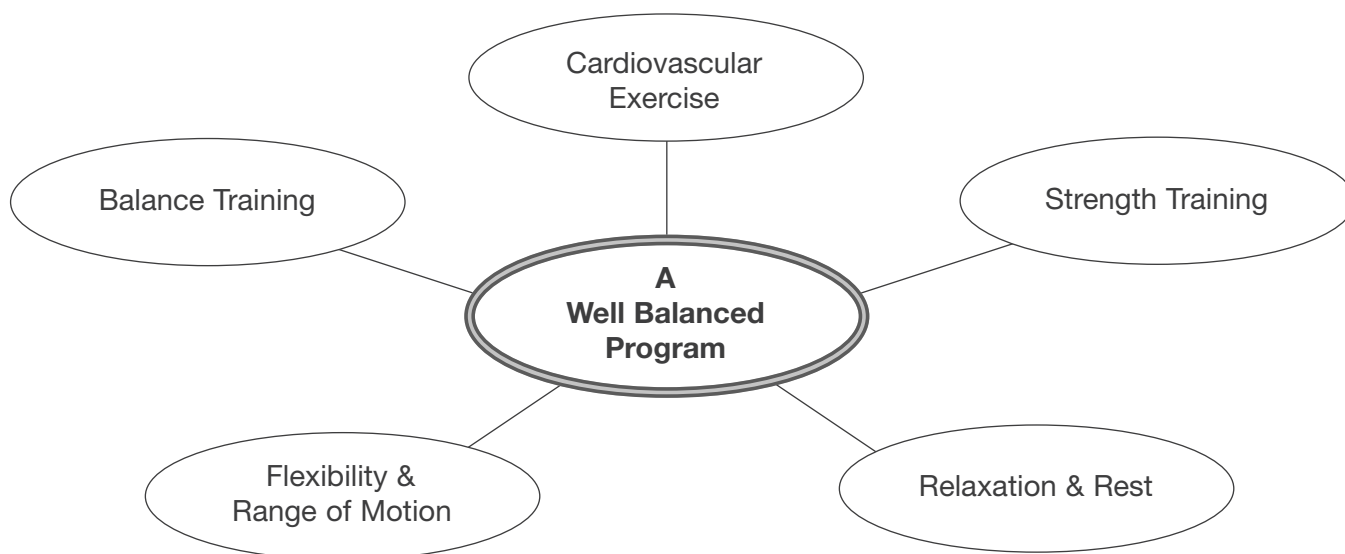
Cancer treatment has both immediate and lasting side effects. Exercise is an important part of your recovery.

#### *Exercise can improve:*

- Feelings of independence and confidence
- Mobility
- Strength
- Stamina
- Cancer-related fatigue
- Overall quality of life
- Physical functioning—both during and after treatment

Exercise will affect individuals in very different ways. Some patients with cancer develop symptoms that keep them from participating in intense exercise activities. Patients may feel lethargic at times during chemotherapy and/or radiation cycles. This is normal and indicates that the body and the cancer are being affected by treatment. Allowing the body time to heal or to rest is important. Listen carefully to your body when engaging in any physical activity and act accordingly. It is best to be conservative when determining the time, type and intensity of any exercise activity.

There are different types of exercises, each with its own benefits. A balanced program includes regular activities from each of the circles in the chart below.



## **Warm Up Before You Exercise**

### ***Warm Up Your Muscles***

Spend about five minutes walking slowly to warm up your muscles. You can walk in place if you want. Increase your pace until you feel warm. Warming up your muscles reduces your risk of injury.

### ***Preparation for Walking***

Walking is a wonderful activity when just starting your exercise program. You can walk just about anywhere! Walking conditions the heart and lungs, and strengthens bones and muscles. Walking can also be very relaxing. We will give you the basic information for a home walking program and you can take it from there.

## **What Equipment do I Need?**

### ***Shoes***

Before beginning, it is important to make sure to wear shoes that give your feet good support. You should have shoes that are stable, have arch support and closed toes. Just lace them up and off you go!

### ***Clothes***

Loose fitting clothes with breathable fabric are best. Consider the weather and dress appropriately. Remember a hat and gloves if it is cold outside, and sunscreen!

### ***Pedometer***

You may wish to wear a pedometer, a small device that measures the number of steps that you take and how far you have walked. There are a variety of pedometers available. You may consider the Omron HJ-112 Digital Premium Pedometer, which is an easy-to-use, accurate, and reasonably-priced pedometer.

When you begin to use your pedometer, wear it during waking hours for 1 week to determine your stepping baseline. Every evening for 7 days, write down the number of steps that your pedometer recorded for the day. At the end of the week, add up the total steps for the week, then divide that number by 7 to get your “stepping baseline” (your average daily number of steps).

## **Is There a “Technique” to Walking?**

### ***Some things to think about when walking:***

- Keep your head held high
- Your shoulders back and down
- Your abdominal muscles held in
- Walk with smooth movements
- Roll your foot from heel to toe
- Choose your routes carefully
- Make sure you have good lighting
- Avoid uneven surfaces if you have balance problems



- Make sure someone knows where you are going, or walk with a partner
- Listen to your body – don't be afraid to stop and take a break

Enjoy the scenery, stop and smell the roses. That's part of the pleasure!

### ***How Long Should I Walk?***

If you are just starting out, even 2 to 5 minutes can be a good goal. As you become more comfortable, and your strength increases, add a little more time. A long-term goal may be 20 minutes twice a week, then 30 minutes 3 to 4 times a week!

### ***How Far Should I Walk?***

- Daily activities that can help you achieve your walking goals
  - Park farther from the entrance
  - Take the stairs whenever possible
  - Go for a 5-minute “nonsmoking walk” when co-workers take a smoke break
  - Get up from your desk and take a 3-minute walk every hour (good for the eyes and back)
  - Deliver messages to co-workers in person instead of using inter-office mail or e-mail
  - Use a cordless or cellular phone and walk while you talk
  - Walk the sidelines while your kids play soccer
  - Do upper body or leg exercises while watching television
  - Have “walking meetings” at work
- Fun activities that can help you achieve your fitness goals
  - Play music and dance around the house
  - Spend an evening dancing instead of at the movies
  - Spend time with friends and family walking at the zoo, at the museum, through the botanical gardens, or in a park
  - Have an exercise date—walk, play a sport, or visit a park with a friend
- Household chores that can help you achieve your fitness goals
  - Vacuum your house more often
  - Stand on one foot while you brush your teeth
  - Do the yard work
  - Power-walk every supermarket aisle, even when you only need milk
  - Plant a garden

## How Hard Should I Exercise?

It is useful to know how to measure the intensity at which you are exercising. Here are 3 common techniques for measuring exercise intensity: the talk test; rating of perceived exertion; and target heart rate. Choose the method that's best for you.

### **OPTION 1: Talk Test**

Try to talk while you are exercising. If you are so out of breath that you cannot carry on a conversation, you are probably walking too fast and should slow down.

### **OPTION 2: Rating of Perceived Exertion**

This method is a self-rating of how hard you think you're working on a scale that ranges from 1 to 10. Aim for at least moderate to somewhat hard intensity as you walk.

| 1       | 2 | 3 | 4        | 5 | 6             | 7 | 8 | 9    | 10      |
|---------|---|---|----------|---|---------------|---|---|------|---------|
| NOTHING |   |   | MODERATE |   | SOMEWHAT HARD |   |   | HARD | MAXIMUM |

### **OPTION 3: Target Heart Rate**

Your heart rate, measured by your pulse, is the number of times your heart beats in one minute. Heart rate is lower when you are at rest and higher when you exercise because your body needs more oxygen-rich blood when you exercise. For this reason, your heart rate, or pulse, is a simple way to check how hard you are exercising. You gain the most benefit when you exercise at your "target heart rate."

You can check your heart rate by feeling at your wrist (radial artery) or neck (carotid artery). Another option is to wear an electronic heart rate monitor that displays your heart rate as you exercise. Here are the steps for taking your heart rate by feeling.

1. Place the tips of your index, middle, and ring fingers on the palm side of your other wrist, below the base of the thumb. Or, place the tips of your index and middle fingers on your neck, on one side of your windpipe.
2. Press lightly with your fingers until you feel the blood pulsing beneath your fingers. You might need to move your fingers around slightly until you feel the pulsing.
3. Measure your resting heart rate. Look at a watch or a clock with a second hand. Count the beats you feel for 10 seconds. Multiply this number by 6 to get your heart rate per minute. In other words:  
number of heart beats in 10 seconds  $\times 6$  = your heart rate.



***Normal resting heart rate for adults (age 18 and over) is 60-100 beats per minute.***

4. Next, calculate your predicted maximum heart rate, the highest your heart rate should get.

***Your predicted maximum heart rate is 220 minus your age.***

5. You gain the most benefits and lessen the risks when you exercise in your target heart rate zone (see the following chart). Periodically, stop exercising and check your heart rate. If your heart rate is below your target zone, increase your rate of exercise. If your heart rate is above your target zone, decrease your rate of exercise. Most importantly, listen to your body and how you feel!

### Target Heart Rates for Exercise (beats per minute)

| Age | Predicted maximum heart rate<br>(220-age) | Moderate intensity heart rate<br>(50–70% of maximum heart rate) | Vigorous intensity heart rate<br>(70–85% of maximum heart rate) |
|-----|---|---|---|
| 20  | 200                                       | 100–140   | 140–170   |
| 25  | 195                                       | 97–136  | 136–165   |
| 30  | 190                                       | 95–133  | 133–161   |
| 35  | 185                                       | 92–129  | 129–157   |
| 40  | 180                                       | 90–126  | 126–153   |
| 45  | 175                                       | 87–122  | 122–148   |
| 50  | 170                                       | 82–119  | 119–144   |
| 55  | 165                                       | 82–115  | 115–140   |
| 60  | 160                                       | 80–112  | 112–136   |
| 65  | 155                                       | 77–108  | 108–131   |
| 70  | 150                                       | 75–105  | 105–127   |

Important! Some medicines and medical conditions might affect your heart rate. If you are taking medicines or have a medical condition, such as heart disease, high blood pressure, or diabetes, ask your doctor if your maximum heart rate will be affected. If so, your heart rate range for exercise should be prescribed by your doctor or an exercise specialist.

### Flexibility Exercises

Flexibility exercises are also called stretching exercises. Flexibility exercises are important for full range of motion and make it easier to perform your activities of daily living. Flexibility is especially important if you have had surgery, radiation or injury. Flexibility exercises can be done daily after warming up the muscles. Stretch your muscles for about five minutes before general conditioning exercise, such as walking. Also stretch your muscles after your cool down. Stretching should be done gently, without pain. Each stretch should be held for 20-30 seconds. Examples of stretching exercises begin on page 27.

### Resistance Exercises

Resistance exercises are also called strengthening exercises. Resistance exercises are important for strong bones, muscle strength and performance of daily activities. Resistance exercises can be done at home or in an exercise facility, using weights, elastic bands or tubing, or using your own body weight. It is easy to do. To maintain strength perform resistance exercises one day per week. To improve strength, perform resistance exercises two to three days per week. Your muscles need about 24 hours to recover between resistance exercise sessions. A basic strength training program consists of 10-12 repetitions of the exercise done once or twice for major muscle groups of the body (chest, back, arms, legs, and core abdominal muscles). Examples of resistance/strengthening exercises, from least to most challenging, begin on page 30.

### Cool Down After You Exercise

To reduce stress on your heart and muscles, end each exercise session by walking slowly for about five minutes.



## **Should I Drink more Water During Exercise?**

Make sure to drink water before, during, and after any activity. It is important to your health to stay hydrated and especially important during treatment. During even the most casual activity, water is lost from the body. Get in the habit of carrying a water bottle at all times, as a constant reminder to drink.

## **Facilities and Instruction**

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If you are fortunate to live in an area with exercise facilities nearby, use the programs and equipment they have. You can find facilities in the phone book. It is a good idea to use a facility close to your home or work. Having to travel to a facility may be enough to discourage you from going. Tour any facility you may be considering, ideally during the time of day you plan to go. Check to see if you are comfortable, the facility is clean, and the staff is friendly.

Take advantage of community-based programs designed specifically for cancer survivors that are available at little or no cost. Staff members are generally more knowledgeable and compassionate about symptoms of fatigue, nausea, lethargy and weakness, and cosmetic concerns. They can design a special exercise program, help you get over fears, and introduce you to people having similar symptoms.

If you are financially able to hire a personal trainer, investigate the opportunity. A qualified personal trainer can design an exercise program tailored to your needs. It is helpful if the trainer has an undergraduate degree in an exercise related field, special hands-on training in an area related to your needs (cancer and exercise, Pilates, yoga, massage, older populations, etc.), and a nationally accredited fitness certification. The American College of Sports Medicine (ACSM) certification is considered to be the gold standard in the fitness industry. Other recognized certifications include the American Council on Exercise (ACE), and the National Academy of Sports Medicine (NASM).

## **Special Considerations for Exercise**

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It is helpful to know how treatment may change your ability to exercise, so that you can continue to exercise safely during and after your cancer treatment.

### **Bone Metastases**

A “metastasis” means that some cancer cells have broken away and lodged in another place in the body. If the cells lodge in a bone the bone may become weak or painful and it might be hard to exercise with weight through that bone. You might try swimming or a stationary bike, rather than walking or jogging. You don’t want to risk a broken bone if you fall during exercise, so make sure your exercise choice doesn’t require a great deal of balance.

### **Chemotherapy-Induced Peripheral Neuropathy**

Chemotherapy drugs may damage the nerves in your arms and legs, causing pain or numbness and tingling in your hands and feet. You might not feel an area of irritation from shoes if your feet are numb. Be sure to periodically check your feet for blisters or cuts. Numbness in the feet and legs may also cause you to lose your balance. Balance and coordination exercise might help you regain your balance, but you’ll need to be very careful.

## Osteoporosis

Certain treatments for cancer may cause osteoporosis, in which the bones become weak. This increases the chance that a bone will break (fracture) in a fall. Resistance or strengthening exercises and exercises such as walking that put weight through your bones, will help keep your bones strong. Again, avoid activities that may put you at risk for falling.

## Myelosuppression

The inner part of your bones contains bone marrow and the marrow produces new blood cells. These cells are red blood cells, white blood cells, and platelets. Red blood cells carry oxygen; white blood cells fight infection; and platelets help your blood to clot. Chemotherapy drugs and radiation therapy may decrease bone marrow activity.

- Anemia is a decrease in the number of red blood cells. Some of the symptoms of anemia include general weakness, fatigue, or difficulty concentrating.
  - Two blood tests for anemia:
    - Hemoglobin, which carries oxygen
    - Hematocrit, which is the percent of red blood cells in the whole blood
- Neutropenia is a decrease in white blood cells, which are our defense against infection. Fewer white blood cells may make you more susceptible to fever and infection. You should avoid public gyms if your white cell count is extremely low.
- Thrombocytopenia is a decrease in platelets. Decreased numbers of platelets may cause you to bleed or bruise more easily.

| Blood Test        | Normal values                      | Exercise suggestions for reduced values |   |
|-------------------|------------------------------------|---|---|
| Hematocrit        |                                    | > 30–32%                                | Okay to add light resistance                  |
| Men               | 40%–47%                            | > 25%                                   | LIGHT exercise                                |
| Women             | 37%–47%                            | < 25%                                   | NO exercise                                   |
| Hemoglobin        |                                    | > 10                                    | REGULAR exercise                              |
| Men               | 14–18 g/deciliter                  | 8–10 g/dL                               | LIGHT exercise                                |
| Women             | 12–16 g/deciliter                  | < 8 g/dL                                | NO exercise                                   |
| White blood cells | 4000–10,000/mm <sup>3</sup>        | > 5000/mm <sup>3</sup>                  | LIGHT exercise;<br>progress as tolerated      |
|                   |                                    | < 5000/mm <sup>3</sup>                  | NO exercise                                   |
| Platelets         | 150,000 to 400,000/mm <sup>3</sup> | 20,000–50,000                           | Exercise carefully;<br>Avoid risk of bleeding |

## Cancer-Related Fatigue

Fatigue from cancer or cancer treatment can be very troubling. This type of fatigue can make your whole body feel tired and run down, even after rest. Exercise can actually help, but you will need to start out easy. You should begin exercising as soon as your health care provider says it is safe. Exercise to improve fatigue should be mostly aerobic, such as walking, swimming, biking. You should start out easy, and gradually work up from 10 minutes to 30 minutes, and from 3 days a week to 5 days a week.

## Cardiopulmonary Complications

Some cancer drugs directly affect the heart muscle, which may lead to an irregular heart beat or reduced heart muscle function. If this happens, your doctor will need to give permission for you to take part in an exercise program. Symptoms such as shortness of breath, pale coloring, sweating, and fatigue during exercise, mean that you should decrease your exercise intensity. Your heart rate, breathing rate, and blood pressure should be carefully monitored during exercise if your heart or lungs have been damaged during your cancer treatment.

## Lymphedema

Treatment for cancer may damage lymph nodes or lymph vessels and may cause fluid to collect in the trunk, arm or leg on the side of treatment. The collection of fluid is called lymphedema, and it may develop long after cancer treatment has finished so you should know what to watch for. If you notice an increase in the size of your arm or leg you should consult your physician.

Exercise is an important part of managing lymphedema, and is safe for most people. Exercises should be started at low intensity and increased gradually. Two recent studies showed that gradually increased strengthening exercises after breast cancer treatment did not result in lymphedema. [3-4] Another study showed that a combination of moderate aerobic exercise, such as walking, and strength training with weights is safe for women with lymphedema following breast cancer treatment, and women should be encouraged to be physically active.[5]

A visit to a lymphedema therapist will help you understand this condition and its management, and how to exercise safely.

*For people with lymphedema The National Lymphedema Network [6] recommends:*

- Use of a compression garment for the affected arm or leg during exercise
- Avoidance of exercising the affected arm or leg to the level of fatigue
- Modifications of exercise programs to avoid overuse or injury to the affected arm or leg

## Exercise Safely

- Remember to listen to your body and exercise to tolerance.
- During radiation therapy, your skin may be fragile. You should avoid chlorinated swimming pools, which may irritate your skin.
- Check with your doctor if you have new or severe nausea.
- Low blood cell counts may mean that you have to be careful during exercise. Check with your doctor before you start.

The cautions outlined in this section are intended to allow you to exercise more safely, not to frighten you away from exercising. Keep them in mind as you carry out your workouts and use them to gauge how much you can exercise. Then, you can get the most out of your workouts in safety.

## Eat Well with Cancer

A healthy diet and proper hydration (enough water) can affect how a person feels during and after exercise and is especially important for cancer survivors.

### Healthy Diet Guidelines

A nutritious diet is essential during and after cancer treatment. What you eat can impact how you feel during treatment, may reduce your risk for cancer recurrence and other diseases, and improve your quality of life. The table below provides general healthy eating guidelines for cancer survivors.

| Recommendations  | Examples   |
|--|--|
| Primarily a plant-based diet: <ul style="list-style-type: none"><li>• Consume at least 5, preferably 8–10, servings of colorful fruits and vegetables daily.</li><li>• Aim for 30–45 grams of dietary fiber daily.</li></ul> | One serving equates to: <ul style="list-style-type: none"><li>• ½ cup of fruit or vegetable</li><li>• 1 cup raw leafy greens</li><li>• ¼ cup dried fruit or vegetable</li><li>• 6 fl oz fruit or vegetable juice</li></ul> High fiber foods include: <ul style="list-style-type: none"><li>• Beans and lentils</li><li>• Whole grains (whole wheat, oats, brown rice, barley, quinoa, etc...)</li><li>• Fruits &amp; vegetables</li></ul>  |
| Low fat diet with emphasis on healthy fats   | Healthy fats to consume in small amounts include: <ul style="list-style-type: none"><li>• Omega-3 fatty acids from flaxseed, walnuts, pumpkin seeds, and cold-water fish (salmon, sablefish, sardines, trout, &amp; herring)</li><li>• Extra-virgin olive oil, canola oil, almonds, and avocados</li></ul> Limit foods high in saturated fat including butter, baked goods, meats, mayonnaise, and whole milk dairy products, including cheese.<br><br>Avoid trans-fatty acids also known as hydrogenated or partially hydrogenated oil. |



| Recommendations  | Examples  |
|--|---|
| Protein from plant and lean protein sources  | <p>Beans and legumes (black/garbanzo/kidney beans, lentils, split peas, etc...)</p> <p>Whole soy foods (tofu, tempeh, soybeans and soymilk)</p> <p>Fish, skinless chicken/turkey breast</p> <p>Eggs (limit yolks)</p>   |
| <p>Limit processed foods for example:</p> <ul style="list-style-type: none"> <li>• Foods high in refined grains, flours and sugars.</li> <li>• Foods high in nitrates and cured foods.</li> <li>• Foods high in additives</li> </ul> | <p>Replace foods made with processed grains like white bread, white rice and white pasta with whole grain varieties to increase nutrients and fiber. Limit desserts and foods and beverages with added sugars.</p> <p>Limit or avoid hot dogs, bacon, and sausage.</p> <p>Limit artificial flavors, colors, and sweeteners.</p> |
| Aim for 8–10 cups non-caffeinated beverages daily.   | Increased fluid intake is needed with a high fiber diet and exercise. Drink water and herbal teas to meet fluid needs.  |
| Be physically active to achieve and maintain a healthy body weight   | <p>If weight loss is necessary, health benefits may be seen with as little as 5–10 percent weight loss from starting weight.</p> <p>Combining regular physical activity and modest calorie reduction is the most successful strategy for long-term weight loss.</p>   |

## Nutrition and Exercise Considerations

Properly fueling your body can have a dramatic impact on workout performance and recovery. The table below provides general guidelines about what to eat before and after exercise to optimize your energy levels.

| Recommendations  | Examples   |
|--|--|
| <b>Daily:</b><br>Aim for well-balanced, nutritious meals. Three meals and one to two snacks control hunger and keep energy levels steady.  | Fill your plate with a balance of fruits and veggies, lean protein and healthy carbohydrates such as whole grains, beans or starchy veggies.   |
| <b>Before exercise:</b><br>Eating well along with adequate hydration before exercise is very important and can positively affect performance.<br><br>The goal of a pre-exercise meal is to prevent low blood sugar and feelings of hunger and provide energy for working muscles. A meal eaten 3-4 hours before exercise is used for energy during exercise.<br><br>Practice different meals to see what works best for you. | Focus on complex carbohydrates since they are easily digested and absorbed into the blood. Avoid high fat and high protein meals prior to exercise.<br><br><b>Pre-exercise meal examples:</b> <ul style="list-style-type: none"><li>• Whole grain cereal, soymilk and sliced strawberries</li><li>• Whole-wheat toast with almond butter and sliced banana.</li></ul> If you choose a snack closer to exercise (1–2 hours), keep it small. For example, a granola bar and fruit or a fruit smoothie. |
| <b>After exercise:</b><br>The goal of a post-exercise meal is to: replenish glycogen stores (stored carbohydrate), enhance everyday performance, replace lost fluids and aid in muscle repair and recovery. Generally, a post-exercise meal is warranted after a hard workout that lasts longer than an hour.  | <b>Post-exercise meal examples:</b> <ul style="list-style-type: none"><li>• Sweet potato topped with vegetarian chili</li><li>• Turkey sandwich on whole wheat bread</li><li>• Brown rice with tofu and vegetables.</li></ul>  |

## Hydration

Drinking enough water is essential to health. Every system in the body requires water. For example, water flushes toxins out of vital organs, carries nutrients to cells, aids in body temperature regulation and maintains blood volume.

Lack of water can lead to dehydration with resulting ill health. Signs of dehydration include thirst, dry mouth, dark amber colored urine, fatigue, muscle weakness, headache or lightheadedness. The best prevention for dehydration is drinking plenty of liquids everyday. It is recommended to drink a minimum of 8–10 eight ounce glasses of water per day. Additional fluids may be needed during exercise, in hot weather, with sweating, fever, diarrhea or vomiting. Urine that is a pale yellow color is a sign of adequate hydration.

| Recommendations  | Examples   |
|--|--|
| Drink a minimum of 8–10 eight ounce glasses of hydrating fluids daily. | Hydrating fluids and foods include: <ul style="list-style-type: none"> <li>• Water</li> <li>• Herbal teas</li> <li>• Diluted fruit juices</li> <li>• Fruits and vegetables</li> <li>• Soups</li> </ul> |
| Limit dehydrating fluids and foods                                     | Dehydrating fluids and foods include: <ul style="list-style-type: none"> <li>• Alcohol</li> <li>• Coffee</li> <li>• Caffeinated teas and soft drinks</li> <li>• High sodium foods (salty)</li> </ul>   |
| Hydration before exercise  | Drink 16–20 ounces of fluid 2 to 3 hours before activity, and drink an additional 8–10 ounces 10 to 20 minutes prior to exercise.  |
| Hydration during exercise  | While exercising, drink 8–10 ounces every 15 minutes, if exercising longer than 60 minutes, drink 8–10 ounces of a sports drink every 15–30 minutes.   |
| Hydration after exercise   | Drink at least 20 ounces of fluid for every pound lost within 2 hours of finishing your workout.   |

### *Tips to help with nausea*

- Try dry Saltine-style crackers, toast, natural potato chips and pretzels.
- Keep crackers at your bedside if nausea is a problem in the morning or after a nap.
- Eat regular meals. Having some food in your stomach may help you feel better.
- Try foods that are easy on your stomach, such as:
  - Oatmeal, rice or Cream of Wheat
  - Boiled potatoes or noodles
  - Low-fat protein sources such as skinned chicken or tofu that is baked or broiled, not fried
  - Peaches or other soft, mild-tasting fruits and vegetables
  - Clear liquids such as apple and cranberry juice, low-salt broth and carbonated drinks without caffeine
  - Teas such as ginger and peppermint, served lukewarm or cold

- Eat small, frequent meals every few hours.
- Slowly drink or sip liquids throughout the day. A straw may help.
- Stay away from odors. Have someone else cook if possible. Eat in the dining room or in a room other than the kitchen.
- Try colder foods and main-dish salads. Avoid hot foods and hot liquids.
- Track your nausea by taking note of any particular food or events that trigger it. See if there is a pattern and if so, try to change that pattern.
- Inform your nurse or doctor about your nausea and ask about medications to control this side effect.
- Stay quiet after meals. Try to rest while sitting up for about an hour—you can watch television, read a magazine, talk with a loved one or enjoy the company of your pet.
- Avoid fried, greasy, and rich foods.
- Don't force yourself to eat your favorite foods when you feel nauseated, as you may develop a dislike for these foods.

## **Stress Less with Cancer**

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Living with cancer has many rewards and challenges. You don't have to become "stressed out" by the daily challenges of living with cancer. Here are some tips from "Relax and Re-Energize©" to help you get your stress levels under control.

### **Control Your Stress Levels**

Your goal during stressful times is not to try to eliminate stress from your life but to find a balance between "good stress" and "chronic stress." Good stress occurs when you have a small amount of stress over a short period that energizes you. Chronic stress, on the other hand, happens when your stress levels are too high or the stress lasts too long. Chronic stress is what causes negative changes in our bodies, mental function, emotions, and behaviors.

As you go through the day, you can use the Three-Point Stress Check to identify when your stress level is running high. It's also a quick and easy way to take your stress level down a notch.

### **The Three-Point Stress Check®**

#### ***Check your breathing.***

- Is it shallow and fast, or are you holding your breath?
- This is stress breathing.
- Take a slow deep breath in through your nose; slowly sigh the air out through your mouth.

#### ***Check your shoulders.***

Where are they—inching up towards your ears? Are your neck and shoulder muscles tense? Slowly lower your shoulders. Roll your shoulders back a few times, slowly. And let the tension in your neck and shoulder muscles go.



### ***Check your thoughts.***

Are you putting yourself down, exaggerating the situation, being illogical?

Negative, self-defeating thoughts are often the cause of our stress.

Mentally, say “STOP!” Then switch your thoughts to something positive. Or simply concentrate on something else for a moment, like mentally reciting the words to your favorite song—anything to switch off that negative chatter.

### **Learn to Relax**

What do you do when you want to relax? Watch TV? Go for a walk? Have a nap? These activities may indeed be relaxing, but they are not relaxation in the strict sense of the word.

Relaxation is any technique that enables the body and brain to achieve a state of restfulness without entering a state of sleep. There is a wide variety of relaxation methods. Some are mental techniques (autogenics, imagery, meditation), some involve physical control (biofeedback, breathing, progressive muscle relaxation), and some use movement (T'ai Chi Ch'uan and yoga). All produce the beneficial effects described above. Contrary to popular belief, you need not practice relaxation in a silent, dark room. You want a convenient method that you can practice at home (and perhaps in other locations) as part of your daily routine. You can do some techniques almost anywhere. Others, like yoga and T'ai Chi, require space for movement, such as a park, gym, or your living room.

### **Prepare for Your Home Relaxation Program**

Your relaxation program will be most successful when it is a basic part of your daily routine. To make this happen, you need to consider

- Time
- Place
- Clothing
- Position
- Your attitude

#### ***Time***

There is no single ideal time to relax. Experiment until you find your best time.

Here are a few guidelines:

- Do relaxation exercises at around the same time each day.
- Don't schedule relaxation right after meals. Relax either before meals or one or two hours after to allow proper digestion.
- Avoid times when you are likely to fall asleep. Sleep is not the same as relaxation.
- Don't do relaxation exercises just prior to going to bed. Many people are energized by relaxation
- Consider relaxing at those times of the day when you feel most sluggish or stressed. This can give you the energy to get through a slump.

### ***Place***

Attempting to do T'ai Chi in a cramped, cluttered bedroom is frustrating. So is trying to do full-body progressive relaxation while standing on a crowded bus! Your relaxation space should be

- Large enough to sit, lie, or move, as your chosen technique requires
- Comfortably warm and reasonably well ventilated
- As quiet as your technique requires. Quiet can become less important as you improve.

### ***Clothing***

Most relaxation techniques do not require special clothes. Your clothing should be comfortable. Make it loose enough not to constrict your breathing or circulation, and heavy enough to keep you warm. Since your body becomes cooler as your metabolic rate slows down during relaxation, you may wish to keep a light blanket or an extra layer of clothing handy.

### ***Position***

Relaxation may be practiced sitting or lying. Lying on your back allows fuller, easier breathing. But if this position is uncomfortable for you, then try sitting. Whether you are sitting or lying, make sure that your body has proper support. This reduces the amount of work that your muscles must do to maintain your position and promotes relaxed breathing.

### ***Attitude***

Correct position, proper dress, and a suitable location won't help you relax if your attitude creates tension. Some people struggle so hard to relax that they experience relaxation-induced anxiety instead.

People who are just learning to relax often find that physical tension, racing thoughts, or unusual sensations make it difficult to focus on the technique. Some people fall asleep. But don't be discouraged by early frustrations. The goal is to relax, not to perform the exercise perfectly. If after correct instruction and diligent practice a particular technique still does not work for you, then consider another or a combination of techniques.

## **Relaxation Exercises You Can Do at Home**

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Here are three simple relaxation techniques using breathing that you can do on your own.

Time: 5–10 minutes

Position: Lying or sitting

Equipment: None

### **Just Breathe**

The simplest of all, you can do this one anywhere, which makes it perfect for medical appointments, long wait lines, and other stress-provoking moments. There are two steps:

1. Choose a comfortable position, then
2. Take a deep breath in and sigh the air out through your mouth. Repeat as needed.

### **Sigh Tension Out**

As you breathe in imagine yourself filling your body with a feeling of calm. Then sigh the air out through your mouth and picture the tension flowing out of your body with the expelled air. Allow your

body to sink further into your chair, mat, or bed at the end of each breath. Repeat this as many times as necessary up to a maximum of ten minutes.

## **Trace Your Breath**

Mentally trace the path that the air takes as you breathe. Inhale, picturing the air as it flows in through your nose, moves down your windpipe, and fills your lungs. Then retrace its flow until you sigh it out through your mouth. From there, you can imagine the air “entering” different parts of your body: flowing down to your stomach, your pelvis, your legs, and your toes.

## **Common Pitfalls: Anxiety or a Feeling That Your Breathing is Getting Out of Control.**

We’re not accustomed to thinking about breathing. So, breathing exercises are by definition a little unnatural. With practice, you’ll become more comfortable focusing on the breath. If you find yourself growing anxious, stop the exercise. Take your mind off the breathing for a moment, and resume when you feel able. Breathing in through your nose and out through your mouth will help you avoid hyperventilating.

## **Be Patient**

Correct position, proper dress, and a suitable location won’t help you relax if your attitude creates tension. Some people struggle so hard to relax that they experience relaxation-induced anxiety instead.

People who are just learning to relax often find that physical tension, racing thoughts, or unusual sensations make it difficult to focus on the technique. Some people fall asleep. But don’t be discouraged by early frustrations. The goal is to relax, not to perform the exercise perfectly. If after correct instruction and diligent practice a particular technique still does not work for you, then consider another technique or a combination of techniques.

*Above all, be patient with yourself. Good luck and stress less!*

The material for Stress Less with Cancer is adapted from Relax and Re-Energize, copyright 2007 Carla-Krystin Andrade.

## **Stay Motivated**

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People who stick with a new behavior for six months usually make it a habit. You now have some useful information on exercise, stress management, relaxation, and nutrition. Once you put some of these ideas into action, you will need some guidance on how to make your new program an important part of your ongoing routine. Here are some helpful tips that can help you to have fun and stay in the game.

## **Set Attainable Goals**

Goals will help you focus your energy and stay on track. Here are the characteristics of attainable goals.

## **Concrete, Specific**

Attainable plans are worded so that the outcome is specific and clear. In other words, you will know when you have achieved it.

## **Within Your Power to Achieve**

Make plans that are within your control to achieve. Some things are beyond your control to change, such as other people's behavior and situations that other people manage.

## **Realistic**

A plan may be within your power to achieve, yet still not be realistic. The key here is to strike a balance between your dreams and what you can reasonably seek to achieve, given the limits of your current situation.

## **Important**

While it may be realistic to work on several plans at once, you may need to set priorities among them. There may or may not be a logical order to your goals and plans; it's up to you to identify your priorities.

## **Timely**

Timing is key. In working toward your goals, you need to pay attention to logical priorities, deadlines, and windows of opportunity that may not always be there. Timeliness also means being flexible enough to reorganize your priorities in response to changed circumstances.

## **Positive**

Plans that use positive wording are the most motivating to work on. There is more incentive for you to work on a goal that promises improvement and heightened self-confidence, than one that emphasizes failure and self-blame.

## **Gratifying to You**

For a plan to be attainable you have to want it; it must be gratifying to you. Before you commit to following a plan ask yourself: "What's in this for me? Do I want this for me?"

## **Keep Track of Your Progress**

Keeping a record of your progress will help you see where you started and how much progress you have made. Over time it can serve as a source of inspiration. Just think how good you will feel when you see how much you have achieved over a week, a month, a year, and beyond. For example, for your exercise program you can document how many steps you take, the distance you walk, and how long it takes to walk that distance in a walking journal. This will help you see your improvements over time.

## **Make it Fun**

If you don't like exercising or doing relaxation alone, invite someone to join you. You might also join a health club, take a class, or find a group in the community. If you do like to go walking alone, be sure to tell someone which route you're taking.

## **Vary Your Routine**

Plan several different options for variety. For example, you can have different walking routes, diet options, or relaxation plans. Sometimes things happen to keep you from sticking to a regular program. Don't be too hard on yourself when this happens. You don't have to let a few days off sabotage your plan to reach a higher level of fitness and improved health. Shrug it off as a temporary break in your walking program.

## Think Positively

Don't let negative self-talk, such as "I'm a failure," get in the way of staying on track. Find positive statements to counter your most frequently used put downs and repeat them to yourself whenever you find yourself getting negative.

## Re-Evaluate Your Goals

From time-to-time take a closer look at your goals and see if they are still attainable and relevant to your current lifestyle and health status. Plan for changes and unexpected situations. For example, if you are taking a trip or working overtime, think of strategies for incorporating your new routine into your day to keep your plan on track.

## Stay on Track

Even though the first steps of any journey can be the most difficult, it helps to keep your goals foremost in your mind. So remember, once you take that first step, you're on the way to an important destination - better health.

Get going. Take that first small step today. Walk for 5 minutes. Try one of the relaxation exercises. Reach for a glass of water or a healthy snack. You'll be glad that you started.

## References and Resources

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### References

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2. Tudor-Locke, C., et al., Revisiting "how many steps are enough?". Med Sci Sports Exerc, 2008. 40(7 Suppl): p. S537-43.
3. Ahmed, R.L., et al., Randomized controlled trial of weight training and lymphedema in breast cancer survivors. J Clin Oncol, 2006. 24(18): p. 2765-72.
4. Schmitz, K.H., et al., Weight lifting in women with breast-cancer-related lymphedema. N Engl J Med, 2009. 361(7): p. 664-73.
5. Hayes, S.C., H. Reul-Hirche, and J. Turner, Exercise and secondary lymphedema: safety, potential benefits, and research issues. Med Sci Sports Exerc, 2009. 41(3): p. 483-9.
6. National Lymphedema Network Position Paper: Exercise. [cited 2009 May 9, 2009]; Available from: <http://www.lymphnet.org/>.

### Internet resources

- American Cancer Society <http://www.cancer.org/docroot/home/index.asp?level=0>
- Clark, Jane (2002) "Exercise: A Cancer Survivor's Tool for Wellness" <http://www.cancersupportivecare.com/whyexercise.html>
- Cleveland Clinic, Health Information Center at the Cleveland Clinic [www.clevelandclinic.org/health/](http://www.clevelandclinic.org/health/)

- National Cancer Institute <http://www.cancer.gov/cancertopics/understandingcancer/cancer>
- National Center on Physical Activity and Disability [http://www.ncpad.org/disability/fact\\_sheet.php?sheet=195&section=1449](http://www.ncpad.org/disability/fact_sheet.php?sheet=195&section=1449)
- National Lymphedema Network <http://www.lymphnet.org/>
- Sunflower Wellness, Inc <http://www.sunflowerwellness.org/>

## **Books**

### *Exercise*

- Exercise and Cancer Recovery by Carole M Schneider, Ph.D.
- Cancer Fitness: Exercise Programs for Patients and Survivors by Anna L. Schwartz
- Cancer Prevention and Management through Exercise and Weight Control by Anne McTiernan
- Exercises for Chemotherapy Patients by Harry Raftopoulos
- Healing Yoga for People Living with Cancer by Lisa Holtby

### *Lymphedema*

- Living Well with Lymphedema by Anne B. Ehrlich
- A Primer on Lymphedema by Deborah G. Kelly

### *Relaxation*

- The Relaxation & Stress Reduction Workbook by Martha Davis, Elizabeth Robbins Eshelman (Available through Amazon.com)
- Relax and Re-Energize by Carla-Krystin Andrade, PhD (Available through the UCSF Health and Wellness Program)

## Physical Activity Readiness Questionnaire (PAR-Q)

PAR-Q is designed to help you help yourself. Many health benefits are associated with regular exercise, and the completion of PAR-Q is a sensible first step to take if you are planning to increase the amount of physical activity in your life.

For most people, physical activity should not pose any problems or hazard. PAR-Q has been designed to identify adults for whom physical activity might be inappropriate or those who should have medical advice concerning the type of activity most suitable for them.

Common sense is your best guide in answering these few questions. Please read the carefully and check YES or NO opposite the question if it applies to you. If yes, please explain.

| Yes | No |   |
|-----|----|---|
|     |    | 1. Has your doctor ever said you have heart trouble?<br>Yes, _____  |
|     |    | 2. Do you frequently have pains in your heart and chest?<br>Yes, _____  |
|     |    | 3. Do you often feel faint or have spells of severe dizziness?<br>Yes, _____  |
|     |    | 4. Has a doctor ever said your blood pressure was too high?<br>Yes, _____   |
|     |    | 5. Has your doctor ever told you that you have a bone or joint problem(s), such as arthritis, that has been aggravated by exercise or might be made worse with exercise? Yes, _____ |
|     |    | 6. Is there a good physical reason, not mentioned here, why you should not follow an activity program even if you wanted to?<br>Yes, _____  |
|     |    | 7. Are you over age 60 and not accustomed to vigorous exercise?<br>Yes, _____   |
|     |    | 8. Do you suffer from any problems of the lower back, i.e., chronic pain, or numbness?<br>Yes, _____  |
|     |    | 9. Are you currently taking any medications? If YES, please specify.<br>Yes, _____  |
|     |    | 10. Do you currently have a disability or a communicable disease? If YES, Please specify, _____   |

If you answered NO to all questions above, it gives a general indication that you may participate in physical and aerobic fitness activities and/or fitness evaluation testing. The fact that you answered NO to the above questions, is no guarantee that you will have a normal response to exercise. If you answered YES to any of the above questions, then you may need written permission from a physician before participating in physical and aerobic fitness activities and/or fitness evaluation testing.

Print Name \_\_\_\_\_

Signature \_\_\_\_\_

Date \_\_\_\_\_

Please Note: If you contract a communicable disease, it is your responsibility to inform your trainer. Your program might need to be suspended until this condition is cured or in a state of remission.



## Exercises: Stretching and Flexibility

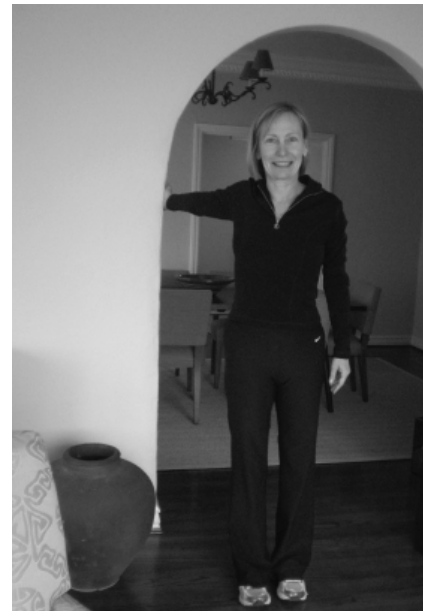
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**Hip flexor stretch**



**Hamstring stretch**



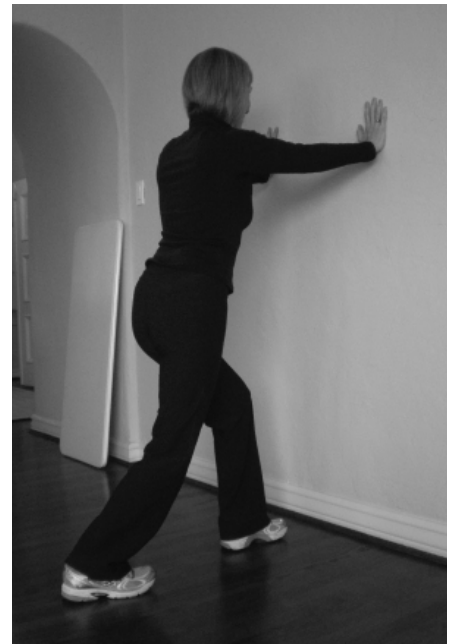
**Chest stretch**



**Quad stretch**



**Calf stretch**



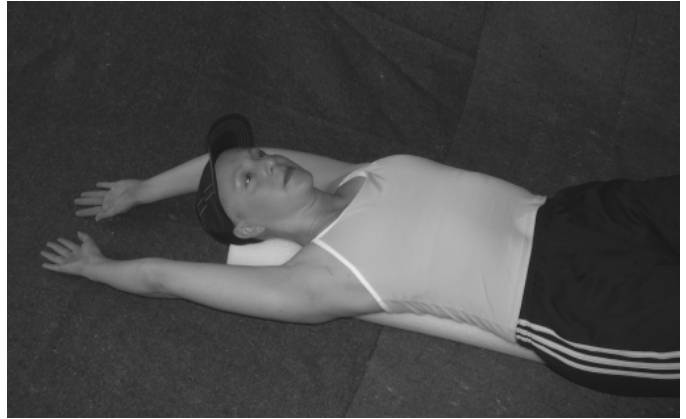
**Calf stretch**



*These exercises can be done on a foam roller, on the floor or against a wall. Stretches can be held in one position or they can be performed repeatedly through the full range of movement.*



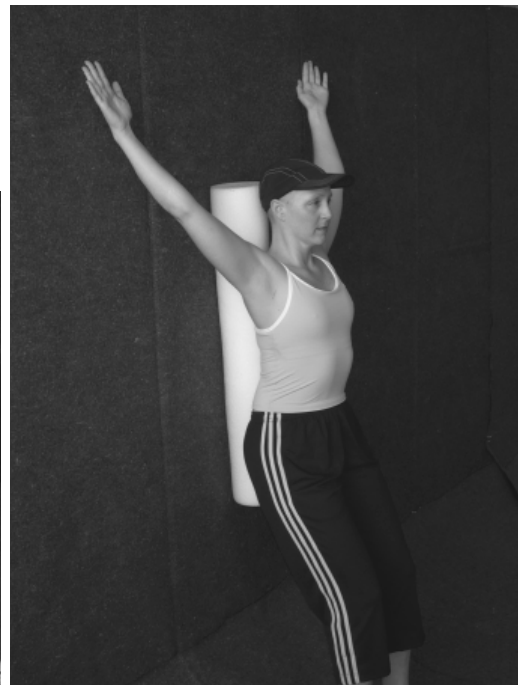
**W position**



**I position**



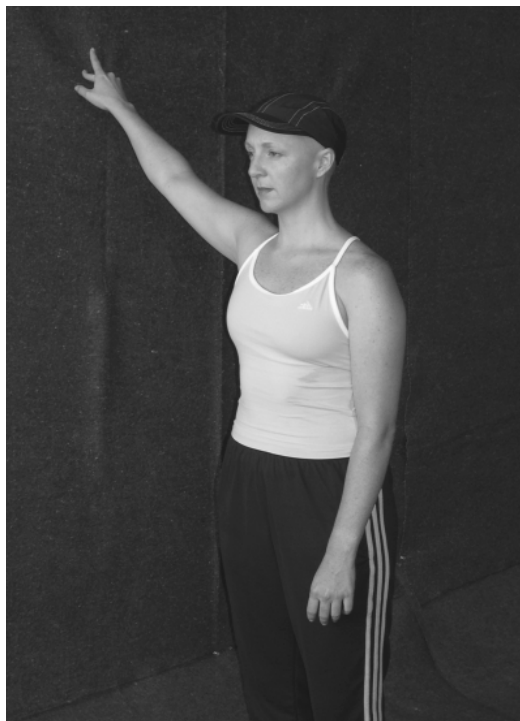
**T position**



**Y position**



**Wall walking-front**



**Wall walking-side**



**Dowel rod or broom-start and finish**

## Exercises: Strengthening

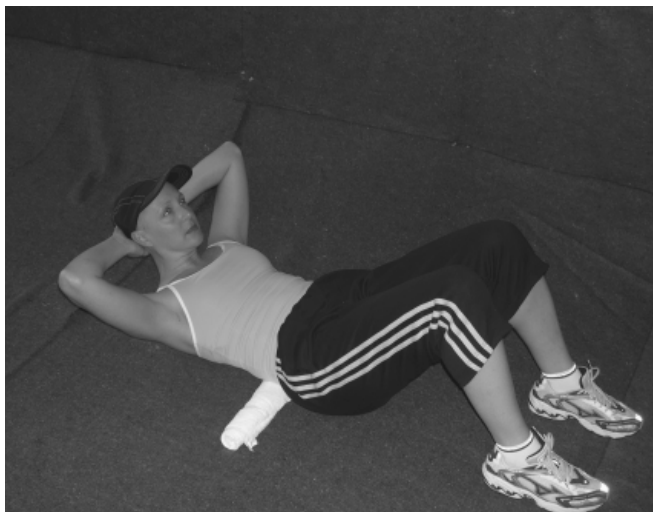
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### CORE

*These exercises can be done on an exercise ball or on the floor.*



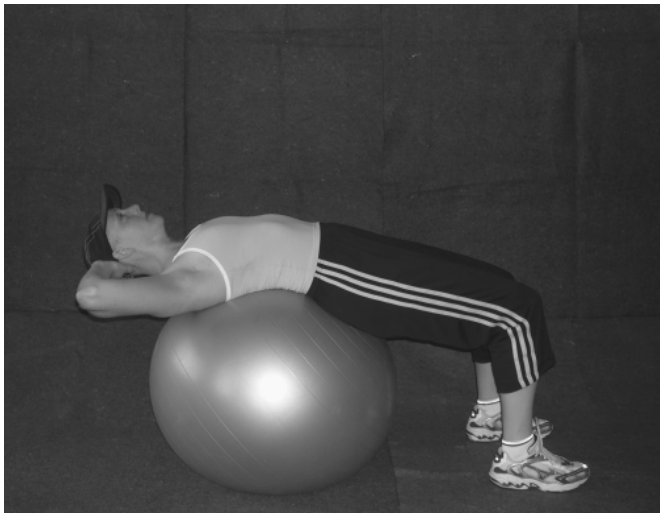
**Pull belly button toward spine**



**Crunch with towel support**



**Oblique crunch with towel support**



**Stability ball crunch–start**



**Stability ball crunch–end**

*Begin on knees and elbows, keep your belly lifted, no sagging, keep head aligned with spin.*



**Modified plank**



**Plank**



**Bridging start**

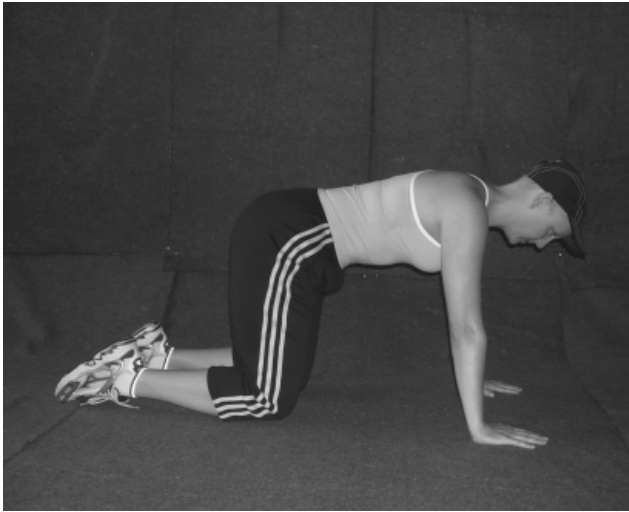


**Bridging finish**

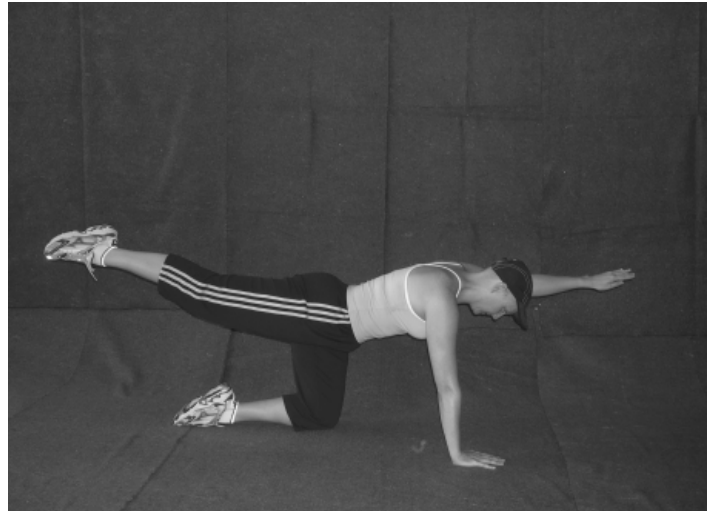


**Bridging with leg up**





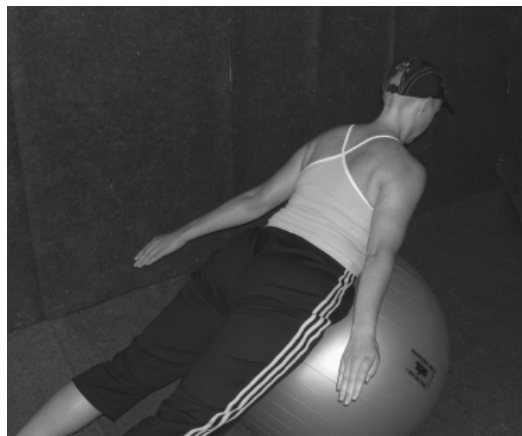
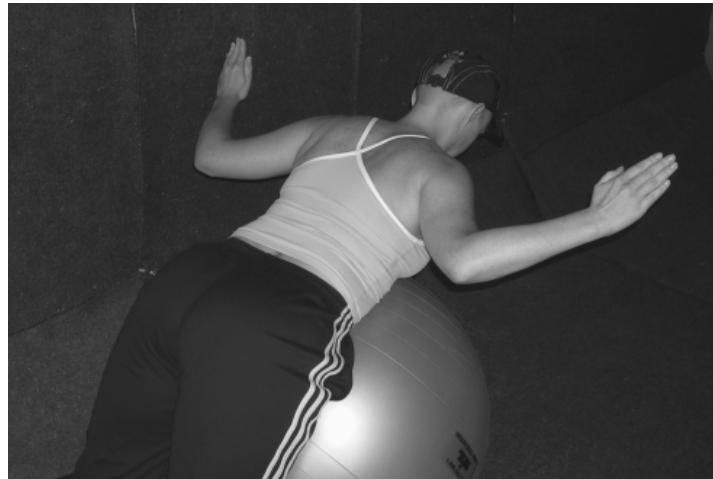
**Quadruped start**



*These exercises can be done on an exercise ball or on the floor.*



**Face-down on ball**

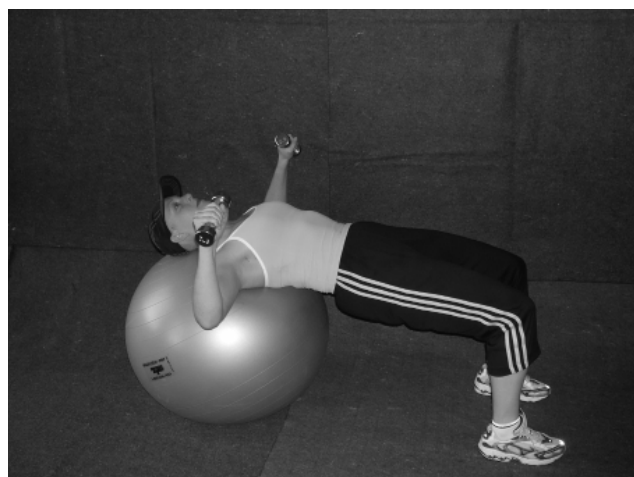


**Face-down cobra**

## CHEST



Wall push-up

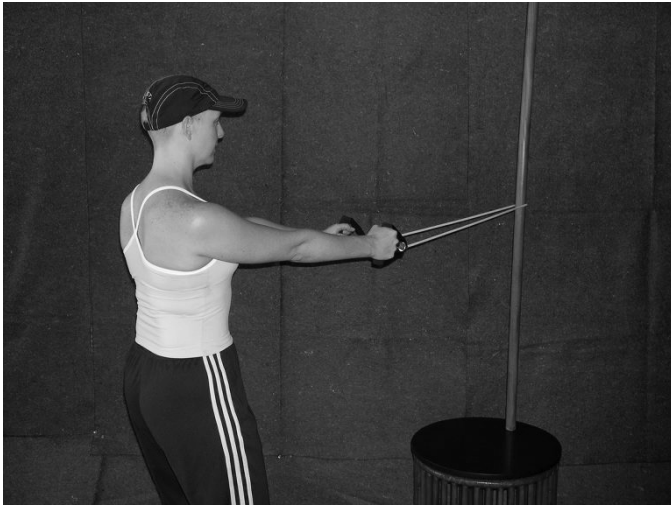


Chest press (on floor, bench or ball)

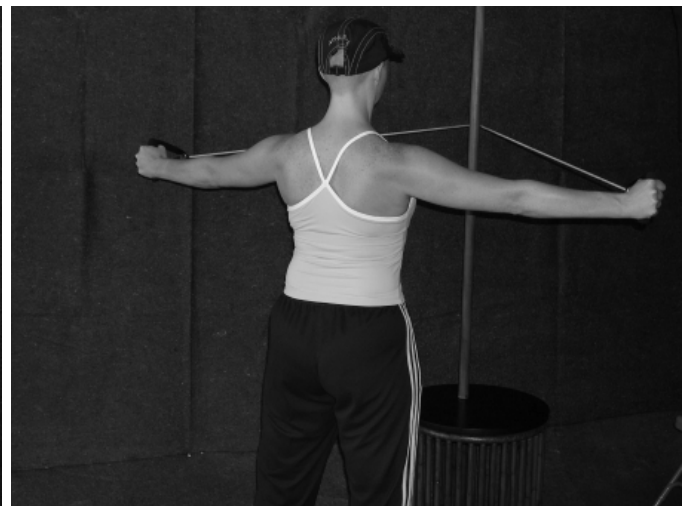


Chest fly

## BACK



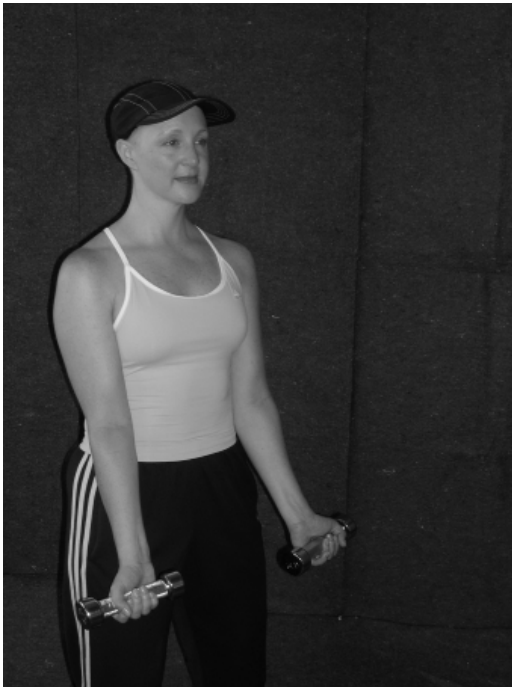
Rowing (sitting or standing)



Reverse fly



## SHOULDER



**Front arm raise**

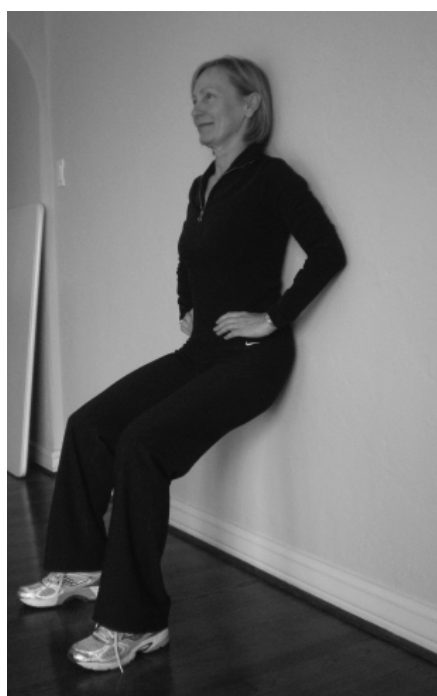
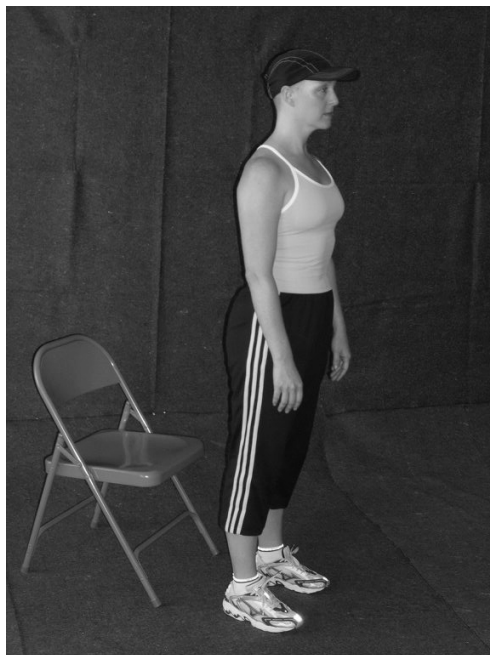


**Side arm raise**

## LOWER BODY



**Sit to stand**

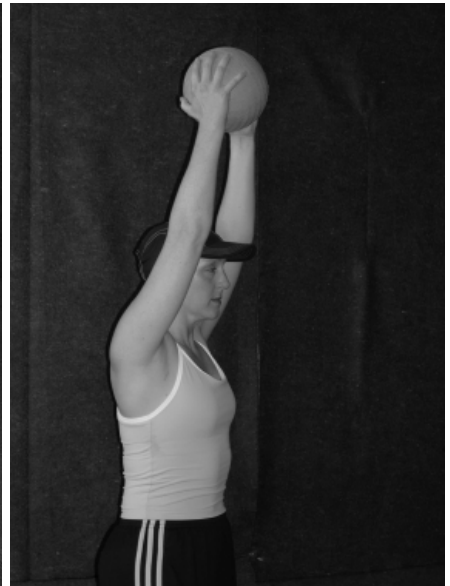
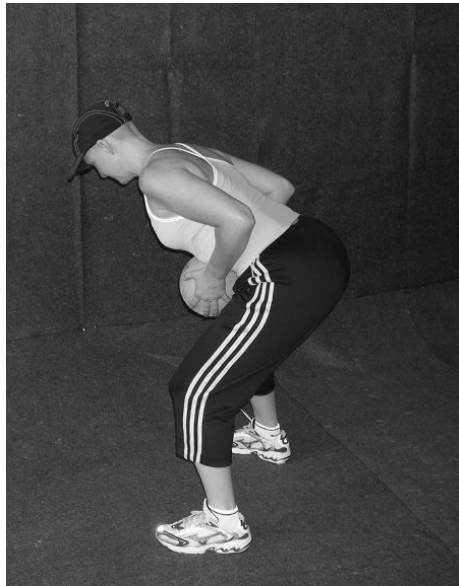
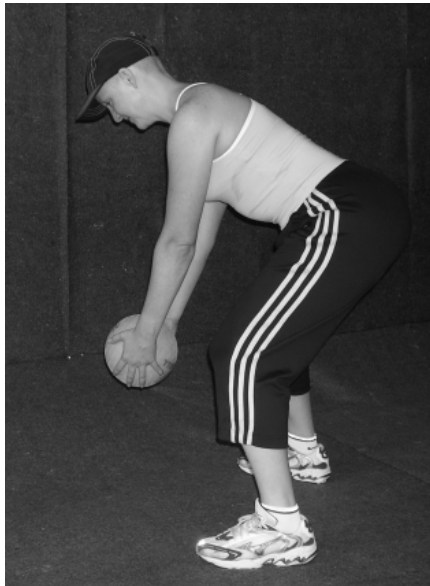


**Wall squat**

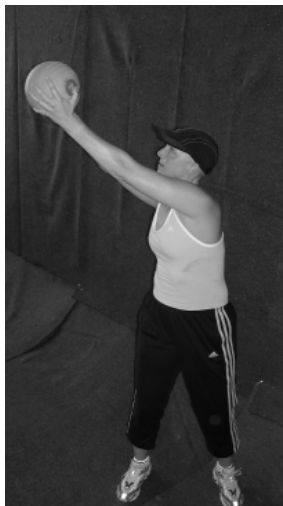
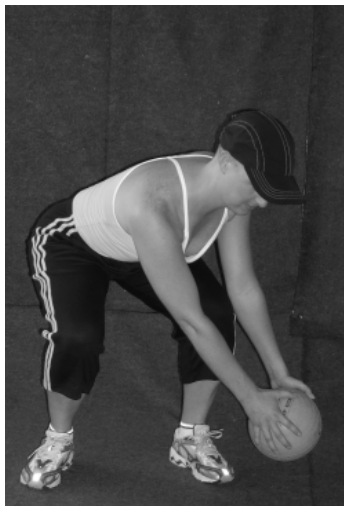


**Forward lunge**

## WHOLE BODY



**Squat – Lift – Raise**



**Diagonal squat-lift-raise**

**Side to side rotation**

## Referral / Medical Clearance

### To be completed by referring physician

#### Patient Information:

Name \_\_\_\_\_

Diagnosis \_\_\_\_\_

\_\_\_\_\_

Treatment / Medications \_\_\_\_\_

\_\_\_\_\_

#### Physical Activity / Program Recommendations:

\_\_\_\_\_ Unrestricted Activity

\_\_\_\_\_ Activity Restricted / Limited to: \_\_\_\_\_

\_\_\_\_\_

Special Concerns / Additional Comments: \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

#### Check all that apply:

\_\_\_ Lymphedema

At risk \_\_\_\_\_

Onset \_\_\_\_\_

\_\_\_ Bone Density \_\_\_\_\_

\_\_\_ Weight Loss \_\_\_\_\_

\_\_\_ Weight Gain \_\_\_\_\_

\_\_\_ Fatigue \_\_\_\_\_

\_\_\_ Range of Motion \_\_\_\_\_

\_\_\_ Joint Pain \_\_\_\_\_

\_\_\_ Stress/Emotional Disturbance \_\_\_\_\_

Physician's Signature \_\_\_\_\_ Date \_\_\_\_\_

Print Name \_\_\_\_\_ Contact number # \_\_\_\_\_