



Cancer Related Fatigue and Exercise

Understanding Cancer-Related Fatigue

Fatigue is a very common side effect of cancer treatment and some patients find it more upsetting than pain or nausea. Fatigue can make it difficult to have a normal life and some people report fatigue long after treatment is completed. Cancer-related fatigue can include a lot of different symptoms, even some you might not think of.

You may:

- Have less energy for your usual activities, including basic self-care
- Feel weak
- Feel like your legs or arms are heavy
- Have trouble concentrating or remembering things
- Feel unmotivated to do your usual activities
- Find that sleeping doesn't really help
- Struggle to get moving
- Have a hard time finishing tasks because you feel tired
- Feel a lot more emotional
- Feel tired for a long time after doing things

Cancer-related fatigue is complicated and can be caused by many different things. That's what makes it hard to treat. Some people describe it as feeling almost like the flu. Factors that contribute include:

- Changes in the body caused by cancer
- Chemotherapy or radiation side effects
- Recovery from surgery
- Medication side effects
- Stress
- Nutrition problems
- Changes in your sleeping habits
- The effects of any health problems you had before cancer diagnosis

The good news about cancer-related fatigue is that many of the best ideas to manage it are under your control.

Education

The more you learn about fatigue the better equipped you will be to fight it. Even reading this resource can help you understand that your fatigue does not mean that you're getting sicker, or that your treatment isn't working. It just means that your body and mind are fatigued in a very specific way. You do not need to wait until you're done with treatment to start to feel better. In fact, you are wise to start fighting fatigue now because you will get your energy back faster if you are practicing the right lifestyle habits now.

Energy conservation

Think of your energy like the money you need to get through a day. Maybe you used to have ten coins of energy to last a day and now you only have five. Energy conservation is the way you budget those five coins so that you can get the most done without running out before you go to bed. Energy conservation will help find the energy you need for exercise.

- Pace yourself and alternate between periods of activity and rest.
- Become aware of your best time of day, the time when you feel most energetic. For many people this is the morning, but for others it may be different. Plan your exercise and your most important activities for that time of day.
- Prioritize what you choose to do, knowing that you can only accomplish so much. Focus on the tasks that make you feel happy or help you feel like your normal self.
- Practice the three D's: drop, delegate, or defer the activities that are less important or less appealing to you.
- Look for energy "leaks" and discuss them with a medical provider. An energy leak is something that slows you down and takes away energy in some small way over the course of the whole day. Energy leaks include things like having a hard time walking for some reason, unresolved pain, or being short of breath because you need supplemental oxygen.

Healthy sleep habits

Sleeping too much or too little will contribute to your fatigue. During cancer treatment you may try to sleep more because it seems like sleep will help you feel rested. This rarely works. You may also sleep to avoid facing the day, or to avoid symptoms like nausea or pain. You may wake up later in the morning because you don't have to get up to go to work, or perhaps because you had a tough night, waking up with pain, the need to urinate, or worry. Too much sleep makes you weaker and worsens depression. Too little sleep makes you tired and emotionally stressed before the day even starts and is hard on your immune system.

- Try to keep your pre-cancer sleeping habits.
- Limit naps to 30-60 minutes.
- Practice an evening relaxation routine.
- Try to go to sleep and wake up at the same times daily.
- Learn techniques like guided imagery to relax.
- Bring problems like pain, hot flashes, and the need to urinate frequently at night to your doctor. Your goal should be to get a full night of restful sleep.
- Treat depression and anxiety.
- Remember that more sleep, especially in the daytime, usually won't help your cancer-related fatigue.

Stress reduction

Strategies to help you manage stress and relax have been shown to help relieve cancer-related fatigue. These techniques include massage and healing touch, guided imagery training, and relaxation breathing. Your doctor, nurse, or medical social worker can help you find this type of support, and many communities have classes and workshops in these techniques. Some are free of charge for people going through cancer treatment. Talking with a counselor or social worker about your thoughts and feelings can help you figure out new ways to cope, will give you a sense of hopefulness, and will help you feel more energetic. These professionals can also guide you to psychiatric services when your emotional distress is severe. Lifting your worry or sadness is an important step and will help you feel more motivated to do other things to improve your fatigue.

Exercise

Exercise is the most important thing you can do to fight fatigue. Many studies, with many different types of patients, have proven this to be the case. Talk to your doctor about what exercise can mean for you. Some people feel motivated to start a simple program at home by themselves and some people benefit from physical and/or occupational therapy. Working with a physical and/or occupational therapist can be an ideal way to regain your muscle strength and overall endurance and the coaching is helpful when you're having a hard time staying on track because you are tired.

Incorporating Exercise into Your Life

Exercise can be informal (simple activities you fit into your routine throughout the day such as increasing the distance you walk) or formal (planned, regular exercise that is a part of your weekly routine). Plan to include both informal and formal physical activity into your life to get the most health benefits.

Regular exercise can help you feel better about yourself during and after cancer treatment. It also may speed your recovery. Exercise may strengthen your immune system and give you more strength and endurance. You may also feel the following benefits from regular exercise:

- Less anxiety
- More energy
- Better sleep
- Better mood
- Fewer signs and symptoms of depression
- Greater self-worth

Try to work up to at least 30 minutes of exercise five or more days a week. Talk to your health care provider before you start an exercise program. Don't do it all at once, start slowly. Sometimes you won't feel like exercising. That's OK. Do what you can. Remember that rest also is important to your recovery. People with a diagnosis of cancer are encouraged to maintain the same level of activity as before diagnosis.

Caution

You should not experience an increase in pain with your exercise program.

Stop your exercise session and consult your health care provider if you have any of the following symptoms:

- Severe shortness of breath
- Pain, pressure or aching in the chest, arms, jaw, neck, shoulders or back
- Unusual, extreme fatigue (You should feel recovered within 60 minutes after exercising.)
- Light-headedness, near fainting or fainting
- Excessive heart palpitations or heart fluttering
- New or increased significant joint or muscle pain

Cancer-specific contraindications for starting an exercise program:

- Patients with pain or swelling should consult with a medical provider before beginning an exercise program. Changes in pain or swelling should result in reductions or avoidance of exercise until appropriate medical evaluation and treatments have occurred.
- Patients with metastasis to the bone should alter their exercise program to decrease risk of fracture.
- Patients with a compromised immune system should use extra caution to avoid risk of infection, especially in public fitness centers.
- Patients with altered sensation in the feet, such as with peripheral neuropathy, should avoid activities which might increase your risk of falls.

Components of an Exercise Program

Formal exercise program

A formal exercise program can help provide both fitness and health-related benefits. A formal exercise program includes different types of exercise that are a planned part of your weekly routine. This should include:

- **Aerobic (endurance or cardiovascular exercise):** Repetitive, continuous movement using large muscle groups for an extended period of time. Aerobic exercise benefits the health of your heart, lungs and circulatory system and will improve your stamina for daily activities.
- **Strengthening (strength training, resistance training or weight training):** Include pushing or pulling against an opposing force, or isometric exercises that require you to hold a position for 10 seconds or more. Strength exercises can increase muscle mass, improve strength, increase resting metabolism and make everyday activities easier.
- **Flexibility (stretching):** Can range from simple stretching exercises to yoga. Flexibility exercises can increase range of motion, make muscles more limber and may help reduce the risk of injury.
- **Balance:** Activities include tai chi, yoga, weight shifting and single-leg balance exercises. This maintains or improves your balance, reduces your risk of falls and injury, and increases muscle strength.

Aerobic Conditioning Exercise

Aerobic exercise guidelines

Aerobic exercise involves rhythmic motion of the whole body and use of large muscle groups. Aerobic exercise increases your breathing and heart rate. Walking, cycling, swimming, jogging, dancing and using an aerobic exercise machine are examples of aerobic exercise.

Developing and following a regular aerobic exercise program can help:

- Strengthen muscles and joints
- Control weight
- Reduce your risk of heart disease and stroke
- Increase bone mass or decrease bone loss
- Increase energy and stamina
- Improve flexibility and balance
- Reduce stress and tension which helps you relax and sleep better
- Improve your self-confidence, self-image and mood
- Relieve chronic pain
- Lower blood sugar
- Lower or control blood pressure

If you stay as active as possible, you are more likely to continue staying active.

A good aerobic exercise program includes:

1. **Warm up**
2. **Conditioning**
3. **Cool down**

Warm up

During the warm up, you prepare your body for conditioning exercises. Do five minutes of low-intensity, slow-paced aerobic exercise (walk, cycle, swim, jog, dance or use an aerobic exercise machine) to ease into the conditioning part of your aerobic exercise.

Conditioning

The exercise you do during conditioning stimulates your body so that it can work more efficiently. During this time, your heart and muscles will work hard. For the best results, work at a certain **intensity, duration** and **frequency**.

Cool down

The cool down is the period immediately after conditioning. A gradual slowing of activity permits your heart rate to return to its pre-exercise level. This also helps prevent dizziness, which can occur if you stop exercising too quickly. A proper cool down also helps loosen the muscles used during conditioning exercises. For three to five minutes, walk or pedal slowly without resistance to cool down your body. Stretching also may be done. Stretching can help relax muscles, improve flexibility and prevent muscle soreness.

Make it a goal to get at least 30 continuous minutes of moderate-intensity aerobic activity at least five days each week, OR get at least 20 continuous minutes of vigorous activity at least three days each week.

You can do a combination of moderate and vigorous activity to achieve your exercise goal.

Find an activity or group of activities that you enjoy and make them part of your regular exercise routine. The type of exercise you choose may depend on your diagnosis and current level of fitness. Consult with a physical or occupational therapist for assistance. Examples of common aerobic conditioning exercises include the following:

- Walking (outdoor, treadmill, mall, school)
- Cycling [outdoor (wear helmet), indoor (stationary)]
- Stair climbing (stair machine, step aerobics)
- Elliptical trainer
- Cross-country skiing (on snow, ski machine)
- Swimming (laps, water aerobics, water walking)
- Jogging (outdoor, indoor track, treadmill)
- Combination arm/leg ergometer (sometimes called an arm/leg cycle or recumbent stepper)

Aerobic exercise duration

To gain maximum benefits, the aerobic exercise portion of your exercise program should last at least 20 to 30 minutes. If you have not been exercising for several weeks or longer, start with 10 to 15 minutes and add one to five minutes each session, as tolerated, until you can exercise for at least 20 to 30 minutes.

Combining shorter sessions of aerobic exercise (10 to 15 minutes at a time) to add up to 20 to 30 minutes in one day is also beneficial.

Intensity of aerobic exercise

Attaining the right aerobic exercise intensity during your workout will increase health and fitness benefits.

Exercise intensity should be in the moderate range for most people. Use the following tools to help you assess your exercise intensity so that you can exercise safely.

Perceived exertion scale. This scale allows you to give a rating to your total perceived effort during exercise. It is a useful tool to help you pace yourself. It refers to the total amount of physical effort experienced, taking into account all of the sensations of exertion, physical stress and fatigue.

When you use the scale, don't dwell on any single factor such as muscle fatigue, discomfort or labored breathing. Instead, concentrate on your overall feeling of exertion.

Borg Rating of Perceived Exertion (RPE) Scale®

6	No exertion at all
7	
8	Extremely light
9	Very light
10	
11	Light
12	
13	Somewhat hard
14	
15	Hard (heavy)
16	
17	Very hard
18	
19	Extremely hard
20	Maximal exertion

Borg-RPE-skalan© Gunnar Borg, 1970, 1985, 1994, 1998

If your perceived exertion ratings are below your recommended levels, increase your pace of exercise. If your perceived exertion is above your recommended levels, reduce your intensity of exercise.

Ratings between 11 ("fairly light") and 15 ("hard") are generally recommended to maintain your exertion in the moderate range.

A rating of "6" indicates a minimal level of exertion, such as sitting comfortably in a chair. A rating of "20" corresponds to a maximal effort, for example jogging up a very steep hill.

Talk test. During exercise you should be able to talk with a companion. If you are too short of breath to do this, you are working too hard and should slow your pace of exercise.

Resistance Exercises (Strength Training)

Benefits from resistance exercises (strength training) may include the following:

- Improved muscular strength and endurance
- Modest increase in muscle size
- Increased bone density (reduced fracture risk)
- Reduced joint pain
- Decreased risk of insomnia and depression
- Improved glucose tolerance and blood sugar levels
- Improved balance and coordination
- Decreased risk of falls in the elderly

To give your muscles time to recover, rest one full day between exercising each specific muscle group.

Strength training can be done using

- Handheld weights
- Adjustable weight machines
- Elastic bands
- Stability balls
- Your own body weight, including core strengthening exercises

Remember to breathe during strength training.

Breathe out (exhale) with exertion and breathe in (inhale) when returning to the starting position.

A combination of these forms of strength training is commonly recommended.

Choose 8 to 10 exercises that work your major muscle groups. When you are doing strength training, avoid overworking one muscle group.

A warm-up of five to ten minutes (or more) of aerobic exercise before strength training is recommended if an aerobic conditioning workout did not precede strength training.

Begin strength training gradually. If you begin with too much resistance or too many repetitions, serious muscle and joint damage may occur. It is normal to have mild muscle soreness for two to four days after starting strength training.

Guidelines for strength training:

Do the exercises as instructed. To improve your muscle strength and endurance, two or three strength training sessions per week (on nonconsecutive days) are enough. If using weights, don't grip the weights too tightly.

The intensity of your strength training should begin with perceived exertion levels of 12 to 13, beginning with 8-15 repetitions. Repetitions should then be increased gradually.

If you are using weights, once you can perform the exercise 15 times comfortably, increase the amount of weight you are lifting and drop your repetitions to eight and work on building back up to 15 repetitions. This is the secret to "progressive resistance training." By asking your body to perform a little more lifting than usual, you will increase your strength.

Elastic bands can also be used for strength training. If you have an allergy to latex, be sure to use latex-free elastic bands. Band resistance changes based on the color of the band and how much stretch you put on the band while exercising. Inspect the band regularly for wear and tear. If it is frayed, replace it prior to use. People with neuropathy in the hands can use foam handles attached to the band to make it easier to grip.

After several weeks of training, you may progress the intensity to 15 or 16 on the perceived exertion scale if approved by your health care provider. Remember to breathe out (exhale) as you lift the weight.

Avoid joint and muscle pain while strength training. Before beginning any new exercise program, talk to your health care provider. A physical or occupational therapist can guide you in which exercises are best for you.

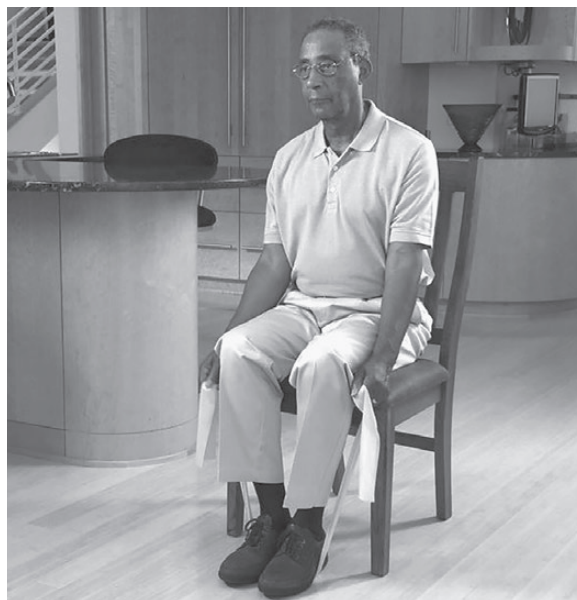
Exercise and lymphedema

- Exercise should progress gradually. Quickly increasing the amount or length of exercise may cause swelling to increase.
- Stop exercise if you have pain or increased swelling.
- If you are at *risk* for lymphedema, consider using a compression garment during exercise. This is a personal decision that can be made with the assistance of a healthcare provider.
- If you have been *diagnosed* with lymphedema, you should wear compression garments or bandages during exercise.
- If you are at risk for lymphedema or have been diagnosed with lymphedema, avoid repetitive motion of the affected extremity.

The following exercises have been recommended for patients with a diagnosis of cancer. The exercises may be modified by changing your body position (for example, sitting or standing) and/or resistance.

Exercises for the Upper Body

SEATED BICEPS CURL



1. Sit in chair with back straight.
2. Secure middle of exercise band under both feet and hold each end with hands down by sides.



3. Keeping back straight, pull ends of band up rapidly bending elbows.
4. Lift chest arching back slightly and hold 3 seconds.

STANDING BICEPS CURL



1. Stand with back straight, feet shoulder width apart with knees slightly bent for stability.
2. Secure middle of exercise band under one foot and hold each end with hands down by sides.



3. Keeping back straight, pull ends of band up rapidly bending elbows.
4. Lift chest arching back slightly and hold 3 seconds.

SEATED ROW



1. Secure the band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Sit in chair with back straight facing the closed, locked door or stable object.



4. Keeping back straight and arms even, pull ends of band back rapidly leading with the elbows.
5. Pinch and hold shoulder blades together 3 seconds.

STANDING ROW



1. Secure band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Stand with back straight, stagger feet with knees slightly bent for stability.



4. Keeping back straight and arms even, pull ends of band back rapidly leading with the elbows.
5. Pinch and hold shoulder blades together 3 seconds.

SEATED PULLDOWN



1. Secure the band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Sit in chair with back straight facing the closed, locked door or stable object.



4. Keeping back straight, pull ends of band down and back rapidly straightening elbows.
5. Pull back a little farther and hold 3 seconds.

STANDING PULLDOWN



1. Secure band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Stand with back straight, stagger feet with knees slightly bent for stability.



4. Keeping back straight, pull ends of band down and back, rapidly straightening elbows.
5. Pull back a little farther and hold 3 seconds.

SEATED BAT SWING



1. Secure the band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Sit in chair with back straight facing the closed, locked door or stable object.



4. Keeping your back and arms straight and your hands together, rotate the trunk to the left rapidly.
5. Rotate left slightly more and hold 3 seconds. Repeat to the right.

STANDING BAT SWING



1. Secure band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Stand with back straight, stagger feet with knees slightly bent for stability.



4. Keeping your back and arms straight and your hands together, rotate the trunk to the left rapidly.
5. Rotate left slightly more and hold 3 seconds. Repeat to the right.

SEATED CHEST PRESS



1. Secure the band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Sit in chair with back straight facing away from the locked door or stable object.



4. Keeping back straight and arms even, push ends of band forward rapidly.
5. Push shoulder blades forward slightly more and hold 3 seconds.

STANDING CHEST PRESS



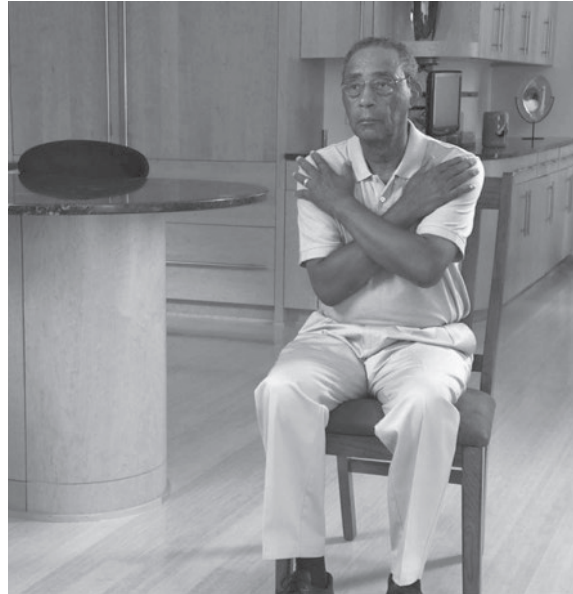
1. Secure band around a stable object or tie a loop in the middle of the exercise band.
2. Secure loop to doorknob. Close and lock door.
3. Stand with back straight, stagger feet with knees slightly bent for stability.



4. Keeping back straight and arms even, push ends of band forward rapidly.
5. Push shoulder blades forward slightly more and hold 3 seconds.

Exercises for the Lower Body

CHAIR RAISE



1. Sit in a chair with arms crossed and feet shoulder width apart.



2. Keeping your back straight and head looking forward, rapidly stand up.
3. Slowly return to a seated position. Repeat.

SQUATS



1. Stand placing back against wall with feet placed approximately 8-10 inches from the wall.
2. Tighten abdominal muscles and press back into the wall.
3. Secure middle of exercise band under both feet and tighten your hold on each end of the exercise band with hands down by your side.



4. Keeping back and arms straight, slowly slide down wall bending hips and knees. Hold 3 seconds.



5. Rapidly return to starting position.

STANDING CALF RAISE



1. Stand holding onto a stable support or on a bottom step holding handrails with feet shoulder width apart.



2. Keeping back and knees straight, rapidly lift heel(s) off the floor/step.
3. Hold 3 seconds supporting your weight on the balls of your feet (foot).

SEATED HIP FLEXES



1. Sit in a chair with your feet together and flat on the floor.
2. Wrap the band around both legs just above your knees then tie a knot.



3. Keep back straight and tighten stomach.
4. Rapidly lift one leg off the chair by pulling up against the exercise band while pushing down with the other leg.
5. Lift a little farther and hold 3 seconds.

STANDING STRAIGHT LEG STEP FORWARD

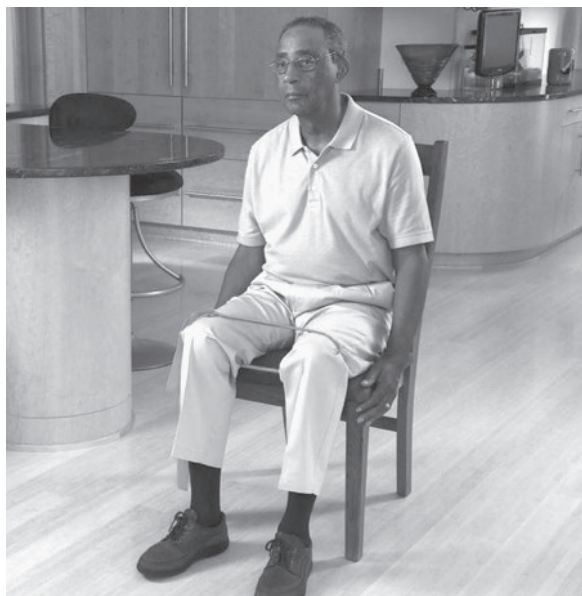


1. Stand with one side next to a stable support and your feet about shoulder width apart.
2. Wrap the exercise band around both ankles then tie a knot.

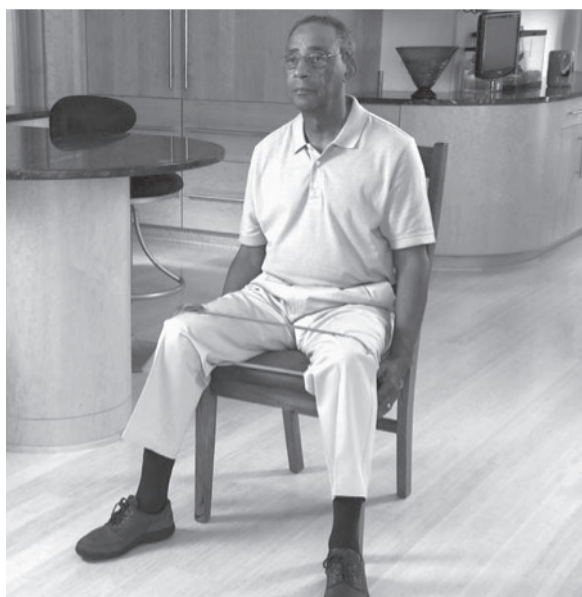


3. Keeping back and knees straight and toes pointed forward, rapidly kick one leg to the front pulling up against the exercise band.
4. Place foot on floor then hold for 3 seconds.
5. Slowly return to the starting position.

SEATED LEG SCISSORS



1. Sit in a chair with your feet together and flat on the floor.
2. Wrap the band around both legs just above your knees then tie a knot.



3. Keep back straight and tighten stomach.
4. Rapidly spread your knees apart against the exercise band. Pull equally with both legs, sliding feet on floor.

STANDING STRAIGHT LEG SIDE STEP



1. Stand with one side next to a stable support and your feet about shoulder width apart.
2. Wrap the exercise band around both ankles then tie a knot.



3. Keeping back and knee straight and toes pointed forward, rapidly move one leg to the side pulling out against the exercise band.
4. Place foot on floor then hold for 3 seconds.
5. Slowly return to the starting position.

STRAIGHT LEG STEP BACKWARDS



1. Stand with one side next to a stable support and your feet about shoulder width apart.
2. Wrap the exercise band around both ankles then tie a knot.



3. Keeping back and knee straight and toes pointed forward, rapidly move one leg backwards pulling back against the against the exercise band.
4. Place foot on floor then hold for 3 seconds.
5. Slowly return to the starting position.

Flexibility Exercises - Ten Basic Stretches

Stretching guidelines

- Hold the stretch at the point of gentle tension, never to the point of pain.
- Take slow, deep, natural breaths.
- Keep the stretch steady. Do not bounce during a stretch.
- Take frequent, small stretch breaks throughout the day.
- Consult with your medical provider before beginning a stretching program, especially if you have an existing condition or injury.

1.



Ear to shoulder (stretches the sides of the neck):

- Keep your shoulders down and relaxed
- Slowly drop your right ear toward your right shoulder and hold for 10 to 15 seconds
- Return to center
- Slowly drop your left ear toward your left shoulder and hold for 10 to 15 seconds

2.



Chin to chest (stretches the back of the neck):

- Keep your shoulders down and relaxed
- Begin with your head upright
- Tip your head forward, bringing your chin toward your chest
- Hold for 10 to 15 seconds
- Raise your head to the starting position and repeat

3.



Overhead triceps stretch

(stretches the shoulder and back of the arm):

- Raise your left arm above your head and bend at the elbow
- Hold your left elbow with your right hand behind the head and gently pull the elbow downward
- Hold for 10 to 15 seconds
- Repeat with the right arm

4.



Arm-across-chest stretch

(stretches the shoulders):

- Raise your right arm to shoulder height, slightly bending the arm at the elbow
- Grab the elbow with your left hand and gently pull your arm across the front of your body
- Hold for 10 to 15 seconds
- Repeat the stretch with the left arm

5.



Anterior chest stretch
(stretches the front of the shoulders and chest):

- Stand straight, legs hip-distance apart and chin level to the ground
- Interlace your fingers behind your back
- Gently lift your arms away from your back and squeeze your shoulder blades together
- Hold for 10 to 15 seconds

6.



Wrist flexion and extension (stretches the wrists and forearms):

- Start with your left arm stretched out in front of you at shoulder level, fingertips pointing to the ceiling
- Using your right hand, apply slight pressure to your left fingers, gently pulling them backward until an easy stretch is felt
- Hold for 10 to 15 seconds
- Relax the hand and point the fingertips down toward the floor
- Gently push the fingertips toward the arm until a gentle stretch is felt
- Relax and repeat with the right hand

7.



Standing low back stretch
(stretches the lower back):

- Stand with your legs hip-distance apart with a slight bend in the knees
- Place your hands in the small of your back with the fingers pointing down
- Slowly bend backward slightly and look toward the ceiling until a gentle stretch is felt
- Hold for 10 to 15 seconds and return to standing

8.



Standing quadriceps stretch
(stretches the front of the thigh):

- Stand holding on to a wall or chair for balance
- Bend your left leg at the knee and grasp your ankle or the top of the foot with your left hand (if this is too much of a stretch, grab your pants leg instead)
- Keep your body and hips straight and thighs together
- Gently pull your foot toward your buttocks
- Hold for 10 to 15 seconds
- Repeat with the right leg

9.



Standing hamstring stretch
(stretches the backs of the legs):

- Start with your feet together
- Step back with one leg about 3 feet
- Bend the back leg slightly and place your hands on the leg
- Straighten the front leg and lift the toes
- Hold for 10 to 15 seconds and repeat on the other side

10.



Calf stretch (stretches the lower leg):

- Start with one leg behind you, keeping the toes pointed straight ahead
- Keeping both feet flat on the floor, slowly bend the front knee while straightening the back leg
- Hold for 10 to 15 seconds
- Bring the feet together, step back with the opposite leg and hold for 10 seconds

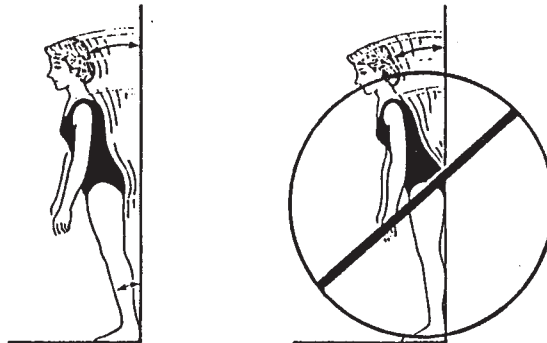
Postural Control Exercises for Balance

Do the following in a safe place such as next to a counter or with your back to a corner wall. Do these twice a day for _____ minutes.

- _____ 1. Stand with your feet together with your eyes open.
- _____ 2. Stand with your feet together with your eyes open while turning your head from side to side.
- _____ 3. Stand with your feet together with your eyes closed.
- _____ 4. Stand with one foot partially in front of the other with your eyes open.
- _____ 5. Stand with one foot partially in front of the other with your eyes open and turn your head side to side.
- _____ 6. Stand with one foot partially in front of the other with your eyes closed.
- _____ 7. Stand with one foot in front of the other with your eyes open.
- _____ 8. Stand with one foot in front of the other with your eyes open while turning your head from side to side.
- _____ 9. Stand with one foot in front of the other with your eyes closed.
- _____ 10. Stand on one foot with your eyes open.
- _____ 11. Stand on one foot with your eyes open while turning your head from side to side.
- _____ 12. Stand on one foot with your eyes closed.

Ankle Sways

On the floor, sway back and forth from the ankles. Do not bend at the hips.



Stay safe. Do not place yourself at risk for falls.

Keys to Success in Your Exercise Program

Staying motivated

Starting an exercise program takes initiative. Maintaining it takes commitment. In just a few weeks, you should begin to see results.

Look at each day that you perform your program as a success. You will feel invigorated and your stamina will increase.

The good news is that people who stick to a new behavior for six months usually maintain that behavior long-term. The more days you follow your exercise program, the easier it will be to stick with it.

Here are some tips to help you stick to your plan:

- **Work exercise into your daily routine.** Look for opportunities throughout the day to exercise. Develop a specific schedule for your exercise program, including time of day (make an appointment with yourself), location, activities, time allotment, etc.
- **Involve your family and friends.** Exercise with a friend or family member, or make new friends by joining an exercise class. Be a role model for your children.
- **Track your progress.** Keep an exercise log to record your accomplishments (use the aerobic and strength training exercise logs at the end of this information).
- **Reward yourself.** Savor the feelings of accomplishment, improved self-esteem and confidence you get from regular exercise. Treat yourself to a massage or new workout clothes as you meet your exercise goals.
- **Challenge yourself.** Over time, your body adapts to your routine. If you need motivation, change the intensity or duration of your workouts, take a new class, or try a new form of exercise.
- **Be flexible.** If you feel sick, take off a day or two. If you have an especially busy day, modify your routine.

The enjoyment factor

These tips may help you successfully maintain your exercise routine:

- Choose activities that you will enjoy, since no single form of exercise is “best.”
- If you are easily bored, use a variety of types of exercise or incorporate sports into your program.
- Many people are more likely to exercise if they have a companion (human or a dog) or attend an exercise class.
- Listen to music or books on an audio player, or watch television during workouts.
- Work exercise into your daily routine by increasing the number of steps you take per day. This can be done by parking further away from a building, taking the stairs instead of the elevator, and walking into the bank or restaurant rather than using the drive thru.

Other techniques to stay motivated

If you enjoy your exercise program, you are more likely to keep it up. However, several other techniques also may help to keep you active:

- Use a pedometer, or a wearable activity tracker, to measure the number of steps taken each day.
- Develop a written “action plan for exercise” with specific, realistic goals and milestones.
- Use walking or bicycling as a form of transportation, if feasible.
- When traveling, keep your exercise routine going by walking whenever possible, taking your exercise clothing along and using hotel exercise facilities.

Facing set backs

Everyone has lapses in an exercise routine because of illness, other adverse events, or lack of motivation. However, when lapses occur, forgive yourself and gradually restart your program, focusing on the things that helped you to start and be successful in the first place.

Clothing

Wear comfortable, nonrestrictive clothing suitable for the activity, weather conditions and place where you exercise. Do not overdress in order to increase sweating during exercise. Any weight loss from sweating is due to water not fat loss and will be replaced as you drink to replenish body fluids. In cool weather, wear clothing in layers so that you can adjust your garments as your body temperature and the environmental temperature (or wind-chill factor) change. Wear properly fitting athletic shoes.

Environment

On hot days, exercise during the early morning, later in the evening, or indoors. Drink plenty of water during exercise. Drink before and after exercise and every 15 to 20 minutes during exercise on hot, humid days. When it is hot and/or humid, more blood is directed to the skin to aid in cooling the body and less blood is available for the exercising muscles than on cooler days. The heart rate increases in response. Let your perceived exertion guide you.

Extremely cold, windy weather may offer some of the following dangers:

- Exposed skin may freeze (frostbite).
- Snow and ice may make footing difficult and cause slips and falls.
- People with asthma or angina (heart pain), may get worse in cold weather. Covering the nose and mouth will warm air as you breathe in and help reduce symptoms.

You may wish to exercise indoors on very cold, windy days.

If you are traveling from sea level to an altitude greater than 4,000 feet above sea level, check with a member of your health care team before deciding if you should exercise there, or how you may need to change your exercise routine. Increased altitude results in less available oxygen in the air. You will need to reduce your exercise intensity to remain in your perceived exertion ranges.

During ozone alerts or on days with poor air quality, avoid outdoor exercise, especially if you have respiratory disease.

Illness or time away from your exercise program

You will have good and bad days. You can modify your exercise based on how you feel. You should do some form of physical activity every day, even if for only 10 minutes.

Deep Breathing and Meditation

Deep breathing guide

Deep breathing exercises are specially planned to help you with temporary feelings of anxiety, fatigue and depression. They work to slow down your breathing and keep it in a regular flow. This helps to give you a feeling of calm and well-being.

Try to fit deep breathing exercises into a quiet part of your day for five to 10 minutes at least three to four times a week. You get the most benefit from doing the exercises this way. But if you cannot fit this into your day, you can still use these exercises to take minute-long breathing breaks during the day and week.

Practice deepening your breath

1. Settle yourself into a comfortable position. Sit on a chair with your spine straight or lie on the floor.
2. Close your eyes.
3. Put your fingers on your lower belly. Feel the gentle rise and fall as you breathe in and out three or four times.
4. Do this again with your fingers now resting on your chest just under your collarbone. Feel the area under your fingers gently spread out each time you breathe in. Then feel it relax each time you breathe out. Let yourself feel this cycle as you breathe in and out a few times.
5. Direct your breath into your upper back. Let your ribs spread and then soften with each breath in and out. Do this for another three or four breaths.

Now you are ready to practice breathing exercise for each of the following particular feelings.

When you feel anxious

1. Settle yourself into a comfortable position. Sit on a chair with your spine straight or lie on the floor.
2. Close your eyes.
3. Focus on slowly breathing out, adding time to this with each breath. For example, if you usually breathe out to a count of five, increase the count by one with each breath. Keep increasing the count until you reach a comfortable time.
4. Now focus on the gentle sighing sounds that come as you breathe out. Pause briefly at the end of each breath. Focus on the rhythm and feeling of your breaths, in and out, for the next 10 to 15 minutes. Try to keep each breath as soft and steady as possible.

When you feel fatigued

1. Settle yourself into a comfortable position. Sit on a chair with your spine straight or lie on the floor.
2. Close your eyes.
3. Slow down your normal rate of breathing. When you reach a comfortable slower pace, begin to pause briefly after letting out a breath and hold that breath until you feel ready to breathe in again. For the next 10 to 15 breaths, add to the time you hold each breath.
4. Next focus on the soft whisper that comes as you breathe in. Gradually add to the time it takes you to breathe in until you reach a comfortable pace. For the next 10 to 15 minutes, focus your mind on the steady rhythm and feeling of your breath.

When you feel sad or down

1. Settle yourself into a comfortable position. Sit on a chair with your spine straight or lie on the floor.
2. Close your eyes.
3. Slow down your rate of breathing. Count the length of time it takes for you to breathe in. As you breathe out, match the time to the time you took to breathe in.
4. Keep doing this balanced breathing for the next few minutes. After every three or four cycles of breathing in and out, add a single count to the cycle until you find a pace that feels comfortable to you.
5. Repeat these cycles of balanced breathing until you feel your mood lift. This may take anywhere from five to 15 minutes.

Remember, breath work can be a helpful tool for days when you feel down. But it should never take the place of medical attention to treat prolonged or serious episodes of depression. Contact your health care provider if your symptoms continue or worsen.

Meditation guide

Doing meditation regularly can help you calm your mind and find a sense of inner peace. You may find quieting your thoughts is not always easy so do not be discouraged if you find meditation challenging at first. Use the steady rhythm of your breath to help you focus your attention inward. Try to fit at least 10 minutes of meditation into your morning or evening schedule at least three to four times a week.

1. Sit in a comfortable position on a chair or a cushion with your spine straight. If you sit on a chair, let your feet rest on the floor. Rest your hands in your lap or put the palms of your hands on your thighs. You should feel relaxed but alert.
2. When you feel settled and safe, close your eyes. If you want to leave your eyes open, let your eyes gently gaze on the floor a few feet in front of you.
3. Become aware that you are sitting. Feel the weight of your body being supported by the earth. Focus on where your body touches the chair or cushion. Notice the feeling in your legs and hands. Let yourself settle gently into your body and into this moment. Remind yourself that you have nowhere to be but right here for the next 10 minutes.
4. Think about your breath. Begin to breathe slowly and deeply. Focus on the steady flow of your breath as it moves in and out of your body. Let your belly relax. Notice how it gently rises and falls with each breath in and out. Note how air gently moves through your nose. Feel your chest expand and relax as you breathe.
5. If your mind wanders off to other thoughts or feelings, gently but firmly bring your mind back to your breath. Each time your mind wanders, let yourself begin again without passing judgment.
6. Mentally hum a simple phrase or word each time you let out a breath. Choose something meaningful that you find powerful and soothing, such as calm, peace, strength, or joy. The phrase or word you choose is called your mantra.
7. Using your breath to guide you, fill your body with gentle awareness. Be mindful of one area of your body at a time. Notice what area feels relaxed. Notice where you feel discomfort or resistance. Then focus on your toes. Slowly let your mind travel in order from your legs to your hips, spine, lower back, upper back, and shoulders. Let your awareness travel down your arms, into your hands, and back up into your neck and head. Keep a steady flow of breath in and out.
8. Often certain areas of our body are tense and we are not aware of it. As you scan your body, note the places that feel tight or painful. Then send your breath into those spaces to gently break up the tightness or pain there. Let your face, neck, and shoulders relax and then soften.

9. For the final few minutes of your meditation, focus on the areas of your body that you wish to heal. Each time you breathe in, imagine that you are breathing in a white, healing light. Direct it to those parts of your body that you wish to heal. Picture this light circling and supporting those areas and soothing any discomfort or pain you may have there. Feel the strength of the healing energy you have created.
10. With each breath you let out, breathe out anything that no longer serves you. Picture what you are breathing out as a shadow, an illness, or a feeling such as fear, anger, sadness, or hopelessness. As you breathe, feel the white, healing light take the place of the things you are letting go of. Let yourself bring in any qualities that you want in your life, such as joy, love, peace, healing, or strength.
11. As you close your meditation, take your left hand to your heart and your right hand to your belly. As you breathe, thank yourself for taking this time to nourish your body, mind, and spirit. Feel free to close with a short prayer or a wish for peace, healing, and happiness. Gently open your eyes.

Frequently Asked Questions

Is there a “best” time of day for exercise?

Generally, there is no “best” time of day to exercise. In order to maintain your exercise routine, it is important to choose a time of day that is convenient for you. It may be best for you to schedule exercise at the same time each day. Some people have trouble sleeping if exercise is done right before bedtime.

What is the best form of aerobic exercise?

There is no “best” form of aerobic exercise. Fitness and health-related benefits are very similar as long as activities are equally matched in terms of intensity, duration and frequency. Weight-bearing forms of exercise such as walking, jogging and stair climbing may provide greater caloric expenditure and osteoporosis protection than non-weight-bearing activities (swimming, cycling, rowing, etc.). Non- or low-weight-bearing exercise may be best for you if you have problems with your bones or joints.

What can I do to avoid exercise-related injuries?

Following some simple guidelines may help you avoid injury:

- Don't do too much exercise too early in a new exercise program. Progress gradually.
- Warm up and cool down appropriately.
- Wear protective gear when appropriate (helmets, pads, etc.).
- Avoid activities that cause you significant joint or muscle pain.

Some activities are more likely to cause injury than others. These include activities with a lot of jumping (basketball), with abrupt changes in speed and direction (tennis, soccer, etc.) or with high-impact weight bearing (jogging). Take this into account when choosing an exercise program.

Will exercise help me lose weight? If so, how much exercise is necessary?

To lose weight, you must burn more calories than you take in. If you add exercise to your life but don't change how you eat, you can lose weight. However, it will take longer to lose weight with exercise if you don't lower the number of calories you eat. If you want to lose weight, talk with a dietitian about a healthy eating plan. In some cases, patients with cancer will want to gain weight. In this case, an increase in calories may be required to offset the calories burned with exercise.

How can I find time for exercise?

Busy lives make finding time for exercise difficult. Make exercise an important priority and schedule time for it.

- Exercise on a treadmill or cycle while watching the news.
- Exercise at home or close to the office, rather than at a distant fitness center.
- Exercise with a friend or a family member and use the time for conversation, coordination of schedules, planning, etc.
- If you have a hard time scheduling 30 minutes to exercise, consider exercising for 10 minutes, three times per day on most days of the week (accumulate 30+ minutes of physical activity most days).

My family doesn't seem to support my exercise program. How can I help them understand that I need to take time for exercise?

Support from your family can make the difference in terms of your success and enjoyment of your exercise program. Begin by educating them regarding the benefits of regular physical activity. Involve them in your exercise program as a means of increasing their support and understanding.

Once I have established an aerobic exercise program, how can I continue to improve my fitness?

Once your exercise program is well established, a good way to improve your fitness even more is with interval training. To interval train, during your workout increase the intensity of your exercise for 30 to 120 seconds to a rating of 15 to 17 on the perceived exertion scale. Start by trying 3 intervals throughout your aerobic workout, gradually adding more intervals (up to 8 per session) and lengthening the intervals to as long as 2 minutes. Use standard warm-up and cool down procedures. Interval training can be done 2 to 3 times per week.

I want to begin jogging. How should I start?

Jogging can be an enjoyable form of aerobic exercise, but it is not for everyone. People with painful knees, hips or backs are not good candidates for jogging. Before you begin jogging, you must have a certain level of fitness. Talk with your health care provider if you want to begin jogging.

This material is for your education and information only. This content does not replace medical advice, diagnosis or treatment. New medical research may change this information. If you have questions about a medical condition, always talk with your health care provider.