



PATIENT & CAREGIVER EDUCATION

Exercise During and After Cancer Treatment: Level 1

This information explains how you can get enough exercise during and after your cancer treatment. This resource is for people who do not exercise at this time.

Talk with your healthcare provider before you start exercising. Depending on your cancer treatment plan, you may need to avoid or change some exercises or activities. If you had surgery, ask your surgeon if it's safe for you to start exercising.

Physical Activity and Exercise

Physical activity is any movement of the body that uses energy. Some of your daily life activities are examples of physical activity. This can be doing active chores around your home, doing yard work, or walking your dog.

Exercise is a type of physical activity. When you exercise, you do body movements that are planned, controlled, and repeated (done over and over). This helps to improve or maintain your physical fitness level. Try to add these physical activities into your daily life. They will help you get many of the health benefits of exercise.

- Activities that make you breathe harder, such as:
 - Brisk walking (such as power walking or speed walking)
 - Running
 - Dancing
 - Swimming

- Playing basketball
- Strength training exercises that make your muscles stronger, such as:
 - Push-ups
 - Sit-ups
 - Squats and lunges
 - Lifting weights
 - Using resistance bands

Benefits of Exercise

Exercise may help:

- Lower your risk of getting some types of cancers, such as breast and colon cancer.
- Lower your risk of cancer recurrence (the cancer coming back). This is most important for people who have had breast or colorectal cancer in the past.
- Improve your cardiovascular (heart) health.
- Control your weight and improve your body image. Body image is how you see yourself and how you feel about the way you look.
- Improve your quality of life and mental health.
- Keep your bones, muscles, and joints healthy.
- Improve your ability to do activities of daily living (ADLs). Examples of ADLs are eating, bathing, using the bathroom, and grooming (such as brushing your teeth and combing your hair).
- Keep you from falling.

Before You Start Exercising

Talk with your healthcare provider before you start any exercise program. They can help you figure out if you have any health problems that may affect which exercises you can do. They may suggest that you get a medical exam or meet with an exercise specialist. An exercise specialist is a person who has special training in physical activity and exercise. This can be a physical therapist, cancer rehabilitation specialist, or certified personal trainer.

The kind of exercises you can do could be affected if you have any of these health problems:

- Unsteady gait (unstable walk).
- Anemia (having a low red blood cell count).
- Very bad fatigue (feeling more tired and weak than usual, or like you have no energy).
- An infection, such as a fever or the flu.
- Not getting enough nutrients or vitamins in your diet.
- Poor bone health or osteoporosis (OS-tee-oh-puh-ROH-sis). Osteoporosis is a disease that makes your bones weak and more likely to break.
- Arthritis (painful swelling and stiffness of your joints).
- Musculoskeletal (MUS-kyoo-loh-SKEH-leh-tul) issues (problems with your muscles and bones).
- Peripheral neuropathy (tingling or numbness in your hands and feet).
- You have an ostomy or central venous catheter (CVC).
- Uncontrolled (untreated) heart or lung disease.
- You had lung surgery or major abdominal surgery in the past. Abdominal surgery is surgery to your stomach, small intestine, spleen, appendix, colon, or rectum.
- Lymphedema in the limb(s) you're using to do strength training exercises. Lymphedema is swelling that usually happens in the arms,

legs, or both. It's usually caused by lymph nodes being removed.

Suggested Amount of Exercise

Experts from the American College of Sports Medicine (ACSM) and the American Cancer Society (ACS) suggest you:

- Try to get at least 150 to 300 minutes of exercise at a moderate level of intensity every week. You can do this by exercising for 30 minutes a day, 5 days a week. The table in the “Exercise Intensity Levels” section gives examples of moderate-intensity exercises.
- Aim for 2 to 3 strength training sessions a week. These sessions should focus on your major muscle groups: your chest, shoulders, arms, back, abdomen (belly), and legs. Examples of strength training exercises are push-ups and sit-ups, using resistance bands, and lifting weights.
- Stretch your major muscle groups at least 2 times a week.

As part of a healthy lifestyle, you should do some type of physical activity every day. You should also avoid long periods of not moving, such as sitting for hours at a time.

Exercise Intensity Levels

Exercise intensity is how hard your body is working when you're exercising. It's a measure for how hard a physical activity feels to you while you're doing it. There are 3 exercise intensity levels: light, moderate, and vigorous.

When your healthcare provider says its safe for you to start exercising, try doing light-intensity exercises first. Once you're comfortable doing those exercises, you can try moderate-intensity exercises, which are more challenging.

Usually, when you're doing light-intensity exercises:

- You're not out of breath.
- You do not break out into a sweat.

- You can talk and sing without stopping for a breath.

Usually, when you're doing moderate-intensity exercises:

- You breathe faster, but you're not out of breath.
- You break out into a light sweat.
- You can talk but not sing.

This table gives examples of light-intensity and moderate-intensity exercises you can do.

Light-intensity Exercises	Moderate-intensity Exercises
Relaxed biking (slower than 5 miles per hour on flat ground without hills)	Biking (slower than 10 miles per hour on flat ground without hills)
Slow walking (slower than 3 miles per hour)	Brisk walking (3 to 4.5 miles per hour)
Light housework	Gardening and yard work
Tai Chi (an exercise that uses slow movements and deep breathing)	Yoga
Playing catch (throwing a ball, beanbag, or frisbee back and forth with a partner)	Doubles tennis (you and a partner play against a team of 2 players)
Bowling	Water aerobics

Starting an Exercise Program

Think about the reasons why you have not been exercising. Then try to come up with some ways to get past the things keeping you from getting exercise. For example:

- **I have not been active in a very long time.** Start at a comfortable level and add a little more activity as you go along. Choose something you like to do. Many people find walking helps them get started. Before you know it, you'll be doing more each day. Some people also find that getting active with a friend makes it easier to get started.
- **I do not have the time.** Start with 10-minute chunks of time a few days

a week. Walk during a break. Dance in the living room to your favorite music. It all adds up.

- **It costs too much money.** You do not have to join a gym or buy fancy equipment to be active. Play tag with your kids. Walk briskly with your dog for 10 minutes or more.

Building Up Activity Levels Over Time

There are many ways to build the right amount of activity into your life. Every little bit adds up, and doing something is better than doing nothing.

- Start by doing what you can, and then look for ways to do more. If you have not been active for a while, start out slowly. After a few weeks or months, build up your activities by doing them for longer and more often.
- Walking is one way to add exercise to your life. When you first start, walk 10 minutes a day for a few days a week. Do this for the first 2 weeks. Then, start walking for a little longer. Try 15 minutes instead of 10 minutes. Then walk more days a week.
- Once you can walk easily for 15 minutes a few days a week, try walking faster. Keep up your brisk walking for a couple of months. You may want to add biking on the weekends for a change.

Tips for Success

- Find an activity you enjoy and that fits into your lifestyle. Focus on having fun.
- Find a time to exercise that works best for you.
- Be active with friends and family. Having a support network can help you keep up with your exercise program.
- Set short-term and long-term goals. For example:
 - Your short-term goal could be to walk around your neighborhood for 15 minutes a day, 3 days a week.
 - Your long-term goal could be to add more time and days to your

weekly routine. Add these in slowly until you're walking for 30 minutes a day, 5 days a week.

- Track your time and progress on a chart. [You can use the charts in the print version of this resource.](#) You can also try an app on your phone or tablet to keep track of your progress.
- Plan your activity for the week. Experts from the ACSM and ACS suggest spreading aerobic activity out over 3 days a week or more. Aerobic exercises increase your heart rate and energy level. Examples are:
 - Walking outside or on a treadmill.
 - Light jogging.
 - Swimming.
 - Riding a bike.
- Join a fitness group.
- Talk with your healthcare provider about good activities to try.
- Try activities you have not done before.
- Slowly add more time, intensity, and effort to your exercise sessions.
- Do exercises that use large muscle groups, such as your thighs, abdomen, chest, and back.
- Start each exercise session with 2 to 3 minutes of warm-up exercises. For example, you can do shoulder shrugs, march in place, or knee lifts. End each exercise session with light stretching.
- Reward your successes. For example, if you reach your exercise goal, reward yourself by buying new exercise clothing or a new book.
- Stay safe and avoid injuries. Choose activities that are right for your fitness level. Be sure to use the right safety gear and sports equipment.

Adding Exercise to Your Daily Routine

- Walk around your neighborhood after dinner. If the weather is bad, you can walk around in a mall.
- Ride your bike. If it's cold out, you can get a bike trainer. This tool can turn your regular bike into a stationary bike that you can use indoors.
- Mow the grass or rake the leaves instead of using a leaf blower.
- Scrub your bathroom.
- Wash and wax your car.
- Play active games with your kids, such as freeze tag or jump rope.
- Weed your garden.
- Take a friend dancing or dance in your own living room.
- Use a treadmill or do arm curls, squats, or lunges while watching TV.
- Walk to lunch.
- Park your car in the farthest parking spot and walk to where you're going.
- Use the stairs instead of the escalator or elevator.
- Get off the bus or subway a few stops early. Walk the rest of the way to where you're going.
- Set reminders on your phone to remind yourself to take a 10-minute walking break.
- Form a walking club with friends.
- Set reminders on your phone to remind yourself to stand up and move once every hour.
- Wear a pedometer (a device that tracks your steps) or use a fitness tracker, such as a Fitbit®, every day. Using these devices can help encourage you to increase your daily steps. You can also download health and fitness apps to your phone that track your steps and physical activity, such as:

- Apple HealthKit: This app is included on Apple iPhones. It collects health and fitness information from different apps you use and have synced to this app. The Apple HealthKit helps you see all your progress in one place.
- Fitbit: This app is free to download. You can create an account even if you do not own a Fitbit. With a free account, you can track your weight, activity levels, sleep patterns, and nutrition. To help you stay motivated, you can compete against friends and family in different fitness challenges, such as walking challenges. If you want more features, you can pay for a premium membership.
- My FitnessPal™: This app is free to download. With a free account, you can track your food and calories, activity levels, and weight. If you want more features, you can pay for a premium membership.
- Noom: This app encourages users to build new habits to help them lose weight and keep a healthy lifestyle. It is free to download. With a free account, you can track your food and calories, weight, and exercise habits. If you want more features, you can pay for a premium membership.

Resources

These resources show how you can add exercise and physical activity to your daily life. They offer exercise tips based on the status of your cancer treatment. Talk with your healthcare provider before starting any exercise program.

- This site provides resources from the Exercise Oncology Service at Memorial Sloan Kettering (MSK).
www.mskcc.org/research-areas/topics/exercise-oncology
- These resources describe a Level 1 and Level 2 general exercise program for people with cancer.
General Exercise Program: Level 1 (www.mskcc.org/pe/general-exercise-1)
General Exercise Program: Level 2

(www.mskcc.org/pe/general_exercise_2)

- This podcast features MSK experts and an MSK patient who talk about how exercise can help prevent and treat cancer.
www.mskcc.org/videos/making-every-step-count-role-exercise-and
- These 2 videos explain why it's important for people with cancer to exercise during treatment.
www.mskcc.org/videos/can-exercise-during-cancer-treatment
www.mskcc.org/videos/learn-benefits-exercise-during-cancer-treatment
- This video explains how exercise helped an MSK patient during their cancer treatment.
www.mskcc.org/videos/learn-benefits-exercise-during-cancer-treatment-01
- This *Exercise with MSK* video series encourages exercise during and after cancer treatment. Each video shows safe movements and exercises that you can do.
Introduction: www.youtube.com/watch?app=desktop&v=Gu0yjJwnrzY
Breathing: www.youtube.com/watch?app=desktop&v=3ZCD_jNaY6g&list=PLME9VJQhE-huAv4Haot7pMkG2-tnOulFi&index=2&t=2s
Stick Workout: www.youtube.com/watch?app=desktop&v=B_DK-pAcTfg&list=PLME9VJQhE-huAv4Haot7pMkG2-tnOulFi&index=4
Simple Aerobics: www.youtube.com/watch?app=desktop&v=ze_eV9DyEkw
Core Strength: www.youtube.com/watch?app=desktop&v=0Q4XhcLl8xc
Weight Training: www.youtube.com/watch?app=desktop&v=bQ-ozMZAq0k
Post-Workout Stretching: www.youtube.com/watch?app=desktop&v=5DhoFwMjyT4&list=PLME9VJQhE-huAv4Haot7pMkG2-tnOulFi&index=7
- This video encourages exercise after cancer treatment and shows simple exercises that you can do.
www.mskcc.org/cancer-care/survivorship/videos-survivors/exercise-

survivors

- This video explains the importance of exercise after cancer treatment. It offers suggestions about how to exercise safely and stick with a routine.
www.mskcc.org/videos/benefits-exercise-survivors
- This video explains exercise safety issues to think about before you start exercising. This is helpful if you have lymphedema, cancer that spread to your bone, osteoporosis, brain tumors, loss of feeling in your arms or legs, or low blood cell counts.
www.mskcc.org/multimedia/exercise-safety-issues-survivors
- This article from the American Cancer Society explains how you can stay active during and after cancer treatment.
www.cancer.org/treatment/survivorship-during-and-after-treatment/be-healthy-after-treatment/physical-activity-and-the-cancer-patient.html

Charts to Track Your Activity

Day	Activity and Intensity	Minutes of Exercise
Monday		
Tuesday		
Wednesday		
Thursday		
Friday		
Saturday		
Sunday		
Total minutes:		

Strengthening exercise

Day	Activity
Monday	
Tuesday	
Wednesday	
Thursday	
Friday	
Saturday	
Sunday	
Total days:	

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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