



COPD and Physical Activity

Exercise

Exercise is good for everyone, but it is especially important for people with COPD. In fact, it is one of the most powerful tools to manage COPD — second only to quitting smoking.

Exercising can help you breathe better and give you more energy. Start by talking to your doctor or other healthcare provider about exercise. Find out if using your bronchodilator inhaler before exercising will help you exercise more easily. Make sure you are familiar with breathing and coughing techniques that can help you as you are exercising.

The Benefits

When every breath is a chore, it may be tempting to take it easy. However, as you become less and less physically active, your muscles (including your heart) become less and less efficient. They have to work harder, leaving you more tired and breathless. Regular exercise can help your heart, lungs and muscles work more efficiently, so you can do more with the same amount of effort.

Regular exercise can also help you reach a healthy weight. It strengthens your bones and your body's ability to fight off infection. It can increase your

energy level, boost your mood and help you maintain or regain your independence. Being as fit as possible can also reduce the chances of your COPD symptoms sending you to the hospital.

Exercise does not have to be intimidating. In fact, simple walking is one of the best ways to increase your fitness level.

Start slow and gradually do a little more or work a little harder as you become stronger. Make sure you exercise regularly. Remember, any amount of exercise is better than no exercise and small steps are better than no steps.

Before You Start

Get Your Doctor's Approval

It can be tough to get started when you do not feel well. You may also be anxious about becoming short of breath. Talk to your doctor and COPD team about the type of exercise program that would be best for you and how to use your medications before, during and after exercise.

Your doctor may also suggest strategies to help you get started, such as using a walker or referring you to a pulmonary rehabilitation program.

Tips for a Successful Exercise Plan

Stay on Track

1. SET PERSONAL GOALS

Work with your COPD team to establish goals that are reasonable for you and develop an exercise plan that is tailored to your fitness level and breathing ability.

2. BUILD UP SLOWLY

Do not push too hard, but try to go a little further or exercise a little longer every few days. This will increase the efficiency of your body and your muscles.

3. HAVE FUN

Find an activity you enjoy. You will be more likely to keep going if exercise feels more like fun than work. Consider activities like aquafit, dancing, yoga or even walking with a friend. If you have more fun alone, watch a movie or listen to a podcast or music while you exercise. Of course, be sure you are staying safe and aware of your surroundings.

4. ALTERNATE ACTIVITIES

When you have COPD, you need strength in all your muscles. However, you may not be able to exercise all your muscles at once. Try exercising your arm muscles one day and your leg muscles the next to get a complete workout without tiring yourself out.

5. SCHEDULE WISELY

Exercise when you know your energy level will be high; maybe shortly after taking your medication. Do not exercise on a full stomach – try before a meal or an hour or two after eating. Once you figure out what works best for you, treat your exercise time like an appointment. Organize your day around it. Do not start wondering if you have enough time to exercise — that will make it easier to find an excuse not to. Eventually exercising will become a part of your routine.

6. LISTEN TO YOUR BODY

If you are overtired or feeling sick, you may need to limit your exercise for that day. If you have a big event one day, think about limiting your usual time, or postponing your exercise until the next day.

7. DRESS FOR COMFORT

Wear loose-fitting clothing. Dress in layers, so you can take off a sweater if you get too hot. Choose shoes that fasten easily and offer good support as well as ample cushioning.

8. WATCH WEATHER AND POLLUTION

Avoid exercising outdoors if pollution levels are high or the weather is too cold, too hot or too humid. If possible, plan to exercise indoors on those days.

9. TREAT YOURSELF

To stay motivated, give yourself a little reward after exercising.

10. EXERCISE REGULARLY

Make fitness a priority and set aside specific times during the week to exercise. Aim for at least three times per week.

Remember, if you do have to stop exercising due to illness or another reason, do not get discouraged. Start again slowly when you are able. You will gradually regain your muscle conditioning.

Design Your Own Workout

Effective fitness routines need to include flexibility, aerobic and strengthening exercises. Once you have your doctor's approval to start exercising, consider creating your own routine.

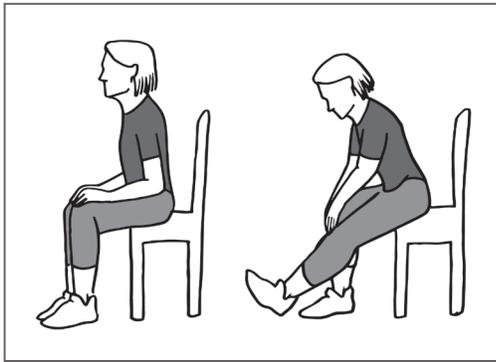
Flexibility Exercise

Stretching is an important part of every exercise routine to keep muscles flexible and relaxed, help joints move more freely and increase range of motion. It can also prevent soreness and relieve tension and strain. Breathe slowly and naturally as you stretch.

Back Thigh Stretch

Sit with your back straight, one foot flat on the floor and the other foot extended in front of you with the heel on the floor and the toes pointing upward.

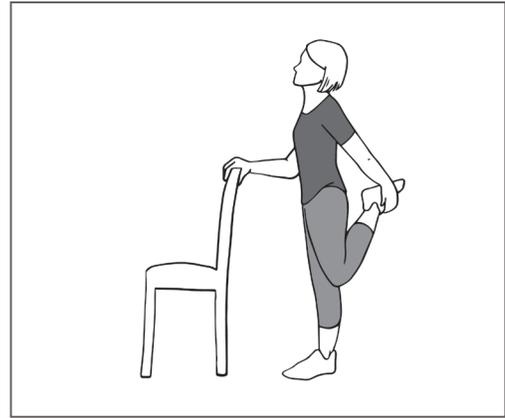
- Reach down to touch your foot, calf or knee (as far as you are able without pain). Remember to bend from the hip, not from the back.
- You should feel a stretch in the back of the thigh.
- Hold this position for 30 seconds. Work up to holding the position for 60 seconds.
- Stretch the back of the other thigh in the same way.
- Repeat 3 times on each leg.



Front Thigh Stretch

Stand resting one hand on a wall or on the back of a chair for balance.

- Hold your ankle or the hem of your pants with your hand and pull up gently.
- You should feel a stretch in the front of the thigh.
- Hold this position for 30 to 60 seconds.
- Stretch the other thigh in the same way.
- Repeat 3 times on each leg.



Buttock Stretch

Sit with your back straight and one ankle placed on the knee of the opposite leg.

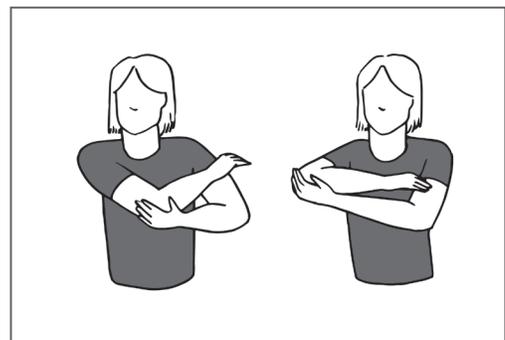
- Bend forward at the waist. You should feel a stretch in the buttock.
- Hold this position for 30 to 60 seconds.
- Stretch the other side of the buttock in the same way.
- Repeat 3 times on each leg.



Shoulder Stretch

Sit or stand with your back straight and one hand placed on the outside of the elbow of the opposite arm.

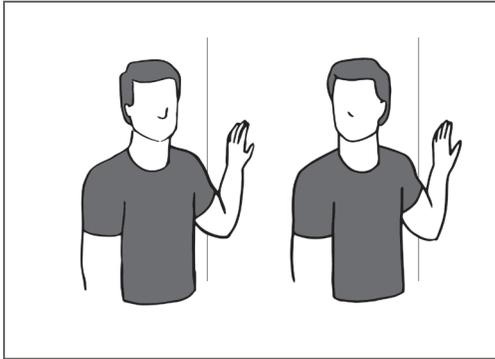
- Pull the elbow gently across the chest.
- You should feel a stretch in the shoulder of the arm being pulled.
- Hold this stretch for 30 to 60 seconds.
- Stretch the other shoulder in the same way.
- Repeat 3 times on each arm.



Shoulder and Chest Stretch

Stand with one hand and forearm placed against a wall. The forearm should be level with the shoulder. The elbow should be slightly behind the shoulder.

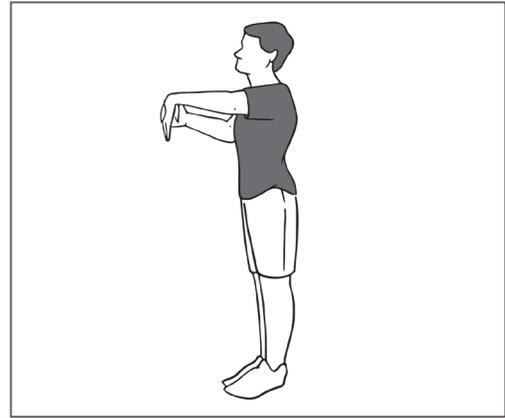
- Turn your head away from the wall.
- You should feel a stretch in your arm and chest.
- Hold this stretch for 30 to 60 seconds.
- Stretch the other side of the chest in the same way.
- Repeat 3 times on each arm.



Palm Down Forearm Stretch

Sit or stand with your back straight and one arm extended in front of you with the palm facing down.

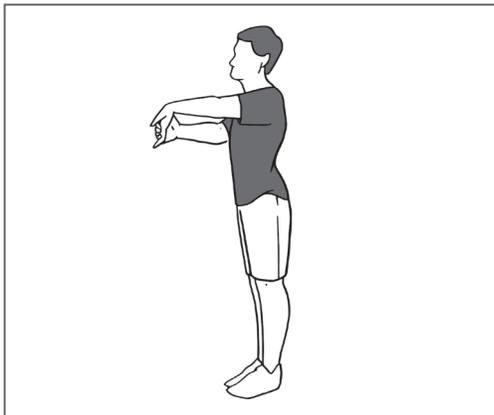
- With your other hand, gently push down on the back of the extended hand. You should feel a stretch in the forearm.
- Hold this position for 30 to 60 seconds.
- Stretch the other palm in the same manner.
- Repeat 3 times on each hand.



Palm Up Forearm Stretch

Sit or stand with your back straight and one arm extended in front of you with the palm facing up.

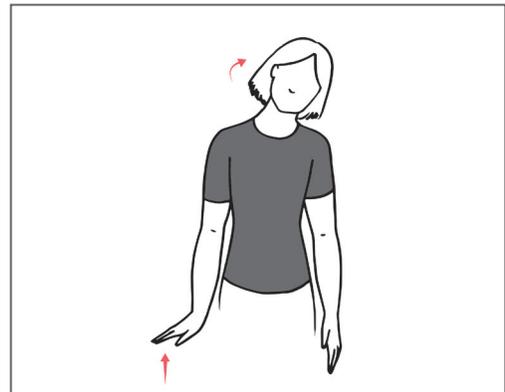
- With the other hand, gently push down on the fingers of the extended hand.
- You should feel a stretch in the forearm.
- Hold this position for 30 to 60 seconds.
- Stretch the other palm in the same manner.
- Repeat 3 times on each hand.



Neck Stretch

Sit or stand with your back straight and your feet flat on the floor.

- Tilt your head to one side.
- Push down on opposite hand.
- You should feel a stretch in the side of the neck opposite the tilt.
- Hold this position for 30 to 60 seconds.
- Stretch the other side of the neck in the same manner.



Aerobic Exercise

Aerobic exercises increase your heart rate for a longer period and makes your heart muscle stronger and more efficient, so your body uses less oxygen to do the same amount of work.

Aerobic exercise is anything that gets your heart rate up. In addition to walking, you might want to try:

RIDING A BICYCLE

Cycling can increase your heart and lung fitness as well as increasing your strength and stamina. It can be a part of your exercise program. You can begin at your own pace and increase your speed and distance as you are able. Like any aerobic activity, cycling can help to build endurance, maintain a healthy weight and reduce stress. It can also reduce the risk of developing other health problems such as diabetes.

SWIMMING

Swimming is a great aerobic exercise that works your whole body. It improves aerobic conditioning, muscle strength, endurance and flexibility all at the same time. Advantages include lower risk of injury and improved posture.

Strengthening exercise

Resistance training strengthens and conditions your muscles so they will not tire as quickly. Strong, fit muscles also use oxygen more efficiently, which eases the load on your lungs. For people with COPD, resistance exercises that work the upper body are especially helpful, since they strengthen breathing muscles too.

To build strength, pedal a stationary bike, stretch using rubber tubing or work out with weights. You do not need special equipment. For example, you can strengthen your arm muscles by carrying groceries or doing elbow bends and other upper body exercises while holding a soup tin as a weight.

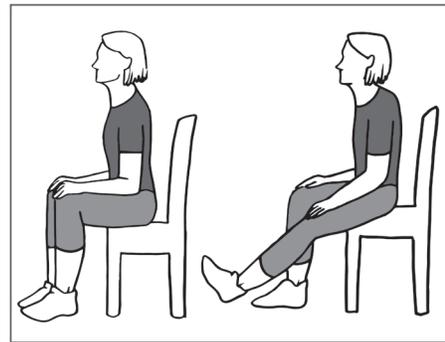
For the Front of the Thighs

(choose either A, B, or C)

A. Leg Extension

Sit with your back straight, with your hands resting comfortably on your knees and your feet flat on the floor.

- Extend one leg straight out in front of you so your heel is on the floor and your toes are pointing upwards.
- Return the leg to its original position.
- Repeat 5 to 15 times for each leg.

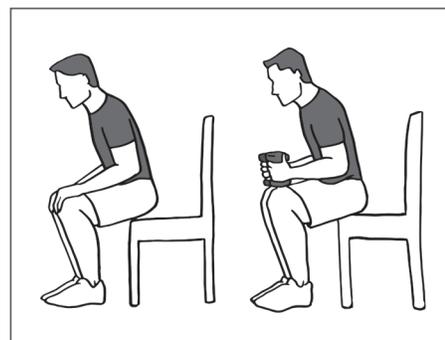


B. Leg Extension

Sit with your back straight, with your knees forming a 90-degree angle to the floor and your hands resting comfortably on your knees.

- Lean slightly forward and stand up from the chair to a straight position with your hands at your sides. (If the chair has armrests, use them to help you stand up if needed.)
- Return to the original position.
- Repeat 5 to 15 times.

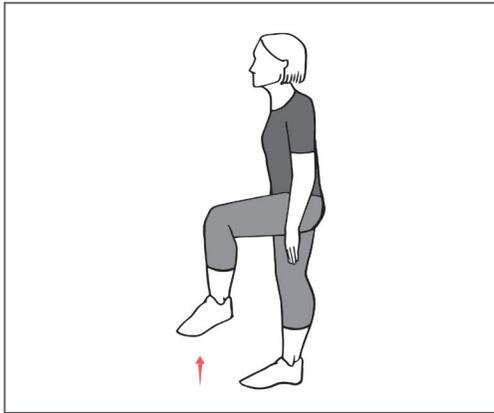
Progression: Do this exercise holding weights in your hands.



C. Knee Lift

Stand with your back straight and your hands by your sides, or stand with one hand on a wall or a chair for balance.

- Lift one leg in front of you so your knee forms a 90-degree angle.
- Return the leg to its original position.
- Repeat 5 to 15 times for each leg.



For the Back of the Thighs

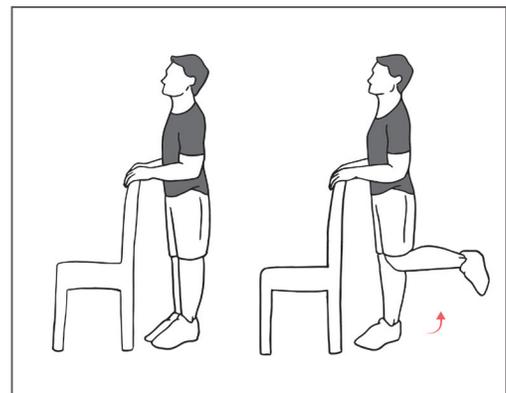
(Choose either A or B)

A. Knee Bend

Stand with your back straight, resting your hands on a wall or the back of a chair for balance.

- Lift your foot out behind you so your lower leg is parallel with the floor.
- Return the foot to its original position.
- Repeat 5 to 15 times for each leg.

Progression: Do this exercise with weights on your ankles.

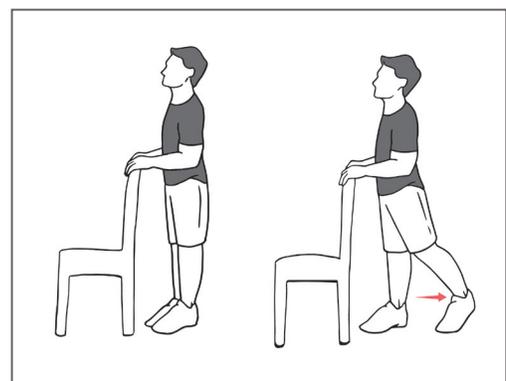


B. Leg Lift

Stand with your back straight, resting your hands on a wall or on the back of a chair for balance.

- Give one leg a small, slow kick backwards.
- Return the leg to its original position.
- Repeat 5 to 15 times for each leg.

Progression: Do this exercise with weights on your ankles.



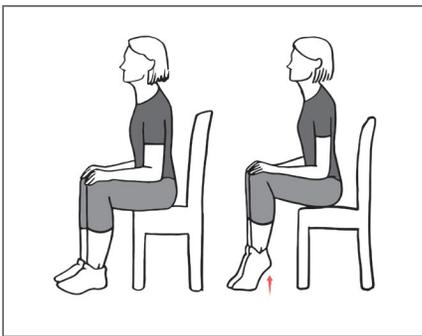
For the Ankles

Heel Lift

Sit with your back straight, with your hands resting comfortably on your knees and your feet flat on the floor.

- Raise your heels.
- Return the heels to their original position.
- Repeat 5 to 15 times.

Progression: Do this exercise from a standing position.

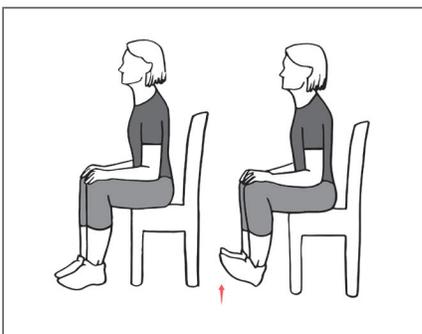


Toe Lift

Sit with your back straight, with your hands on your thighs and your feet flat on the floor.

- Lift the front of your feet, pointing your toes upward.
- Return the feet to their original position.
- Repeat 5 to 15 times.

Progression: Do this exercise from a standing position.



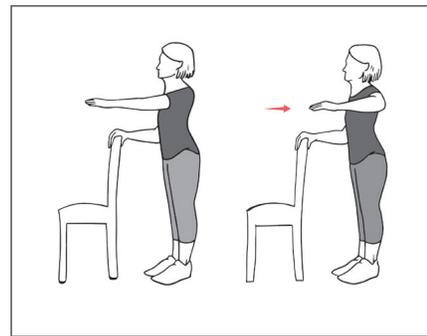
For the Back

Arm Extension

Stand with your back straight and one arm held straight out in front of you, parallel to the floor. If you need help to maintain your balance, hold the back of a chair with your opposite hand.

- Pull your elbow back to form a 90-degree angle.
- Return the arm to its original position.
- Repeat 5 to 15 times for each arm.

Progression: Do this exercise pulling both elbows back at the same time.

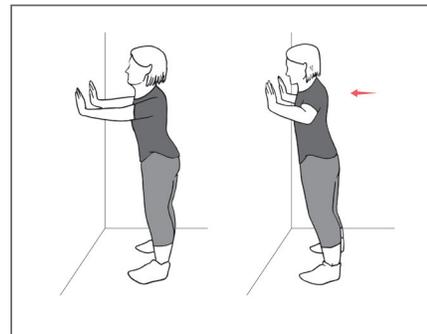


For the Chest

Standing Push-ups

Stand facing a wall, with your feet flat on the floor and far enough away from the wall so you can place your hands flat on it. Your hands should be at shoulder height and shoulder width apart.

- Keeping your feet flat on the floor, let your shoulders move in toward the wall.
- Return body to its original position, as if doing a push-up.
- Repeat 5 to 15 times.



For the Shoulders

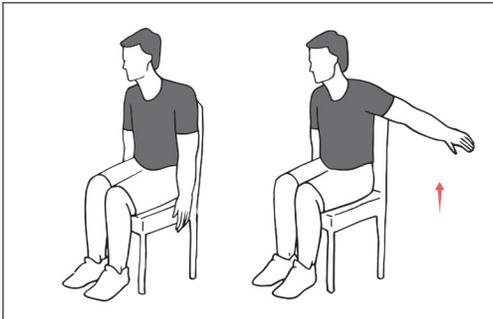
Side Arm Lift

Sit with your feet flat on the floor and your arms straight down at your sides.

- Lift one arm out to the side so it is parallel to the floor.
- Return the arm to its original position.
- Repeat 5 to 15 times for each arm.

Progression 1: Do this exercise lifting both arms at the same time.

Progression 2: Do this exercise with weights in your hands.



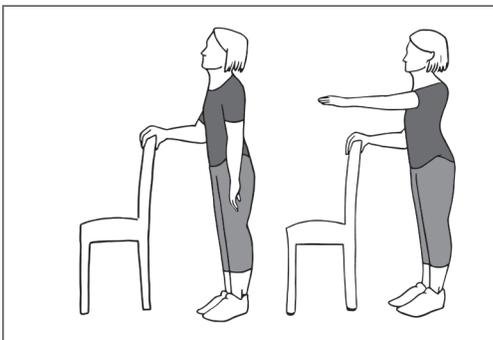
Front Arm Lift

Sit with your back straight, your feet flat on the floor and your arms straight down at your sides.

- Lift your arm in front of you so it is straight out from the shoulders and parallel to the floor.
- Return the arm to its original position.
- Repeat 5 to 15 times for each arm.

Progression 1: Do this exercise lifting both arms at the same time.

Progression 2: Do this exercise with weights in your hands.



For the Arms

Front Elbow Bend

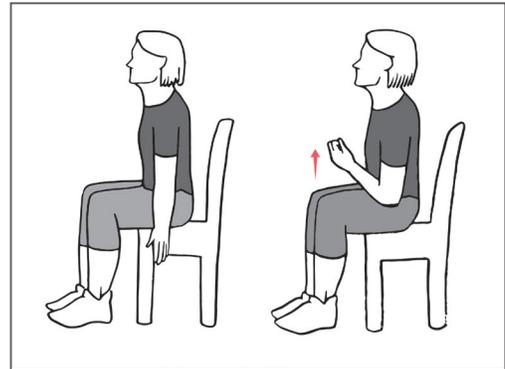
Sit with your back well supported and your arms hanging straight down by your sides.

- Bend your elbow and lift your hand and forearm upwards.
- Return the arm to its original position.
- Repeat 5 to 15 times for each arm.

Progression 1: Do this exercise from a standing position while holding on to the back of a chair.

Progression 2: Do this exercise bending both elbows at the same time.

Progression 3: Do this exercise with weights in your hands.



Back Elbow Bend

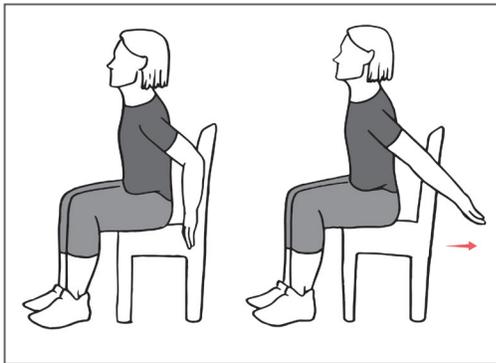
Sit with your feet flat on the floor, with your back well supported and your arm held out behind you. Bend your elbow with your palm facing back.

- Extend your lower arm straight back.
- Return the arm to its original position.
- Repeat 5 to 15 times for each arm.

Progression 1: Do this exercise from a standing position.

Progression 2: Do this exercise extending both arms at the same time.

Progression 3: Do this exercise with weights on your wrist.



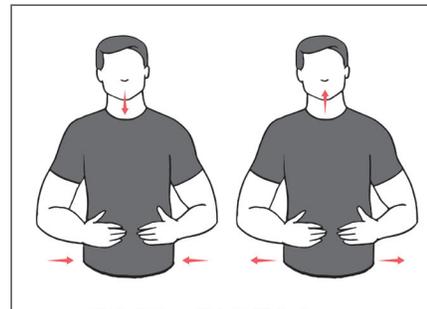
For the Abdomen

Abdominal Contractions

Sit with your back straight, your feet flat on the floor, and your hands on your abdomen with your fingers pointing towards your navel.

- Contract your abdominal muscles as you pull your navel inward and breathe out at the same time.
- Release the abdomen to its original position as you breathe in slowly.
- Repeat 5 to 15 times.

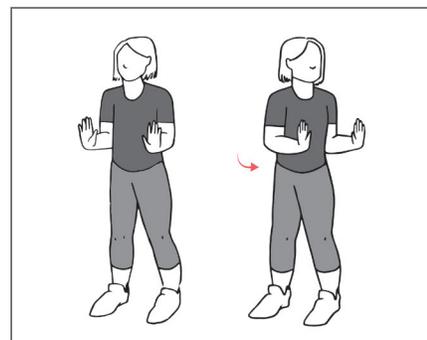
Progression: Do this exercise from a standing position.



Upper Body Rotation

Sit or stand with your back straight, with your feet flat on the floor about shoulder width apart. With your upper arms down at your sides, bend your elbows and hold your hands out in front of you. Your elbows should be about level with your navel. Or you can simply cross your arms on your chest.

- Keeping your feet and hips still, turn the top half of your body to the side.
- Return the upper body to its original position.
- Turn the top half of the body to the other side.
- Repeat 5 to 15 times for each side.



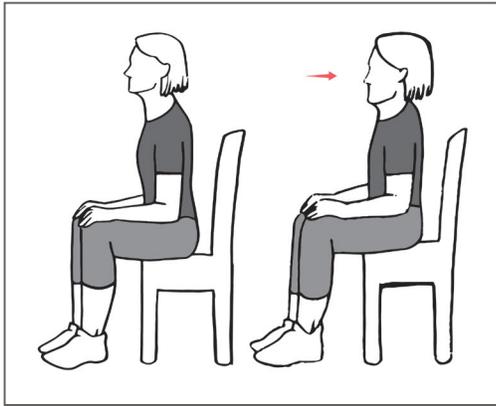
For the Neck

Chin Pull

Sit with your back well supported and your feet flat on the floor.

- Pull your chin and head back gently.
- Return the chin to its original position.
- Repeat 5 to 15 times.

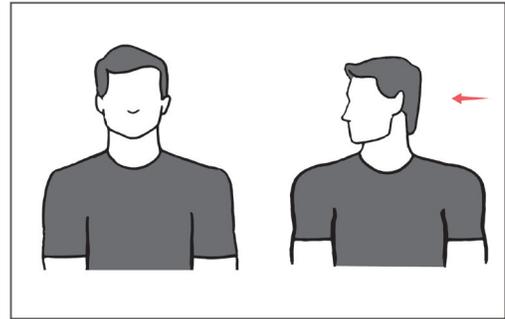
For increased range of movement, you may want to place one finger on the middle of the chin and push gently when you pull your head and chin back.



Head Rotation

Sit with your back well supported and your feet flat on the floor.

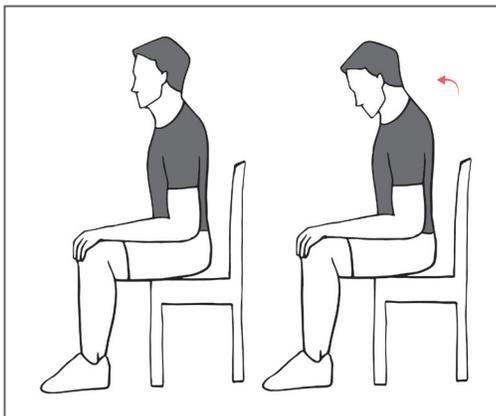
- Turn your head to the side as if looking over one shoulder.
- Return the head to its original position.
- Turn the head to the other side.
- Repeat 5 to 15 times on each side.



Chin Drop

Sit with your back well supported and your feet flat on the floor.

- Bring your chin to your chest.
- Return the chin to its original position.
- Repeat 5 to 15 times.



Join a Pulmonary Rehabilitation Program

A great way to learn how to exercise and find support and encouragement is to join a pulmonary rehabilitation (also called respiratory rehabilitation or rehab) program. Pulmonary rehabilitation is strongly recommended for most people with COPD. It is usually led by a respiratory therapist, a nurse or a cardio-pulmonary physiotherapist.

Rehab will teach you:

- how to exercise and give you a chance to practice exercising
- how to manage COPD (nutrition, conserving energy)
- breathing and coughing techniques

Pulmonary rehabilitation is also a social outlet where people with COPD can share stories and encourage one another.

Full-scale pulmonary rehabilitation is usually offered at hospitals or clinics in larger cities. If you live in a smaller centre that does not offer pulmonary rehabilitation classes, try some combining alternatives such as:

- informal programs offered by smaller hospitals or within your community
- exercise maintenance programs
- nutrition classes at your local community centre
- a mall-walking club
- an aquafit class

Many people with COPD develop their own self-directed rehab program.

You may need a referral from your doctor to join a pulmonary rehabilitation program. If you and your doctor determine that pulmonary rehabilitation is for you, visit <https://www.lung.ca/lung-health/get-help> to find one near you.

