

EXERCISES FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

How do I exercise for COPD?

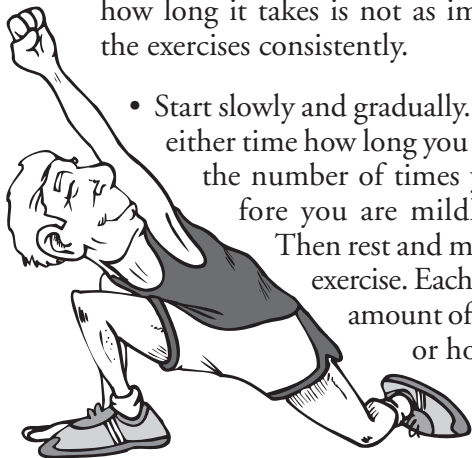
Exercises for COPD are simple to do and take little time. They generally consist of aerobic exercises, which increase oxygen flow to your muscles, and upper and lower body exercises, which strengthen muscles.

Always consult with your health professional before starting any exercise program. People with COPD may have heart problems, such as CAD or high blood pressure, that limit exercise options. You may need medical supervision when you start the program.

If you become breathless while doing any of the exercises, rest in a position with your shoulders supported (such as in a chair) and wait until you can breathe easily again.

To get started with an exercise program:

- Talk to your health professional. He or she may ask that you do specific exercises and will help you determine how often and how long to do them and your long-term goals. Although it may take weeks before you are able to reach your goals, how long it takes is not as important as doing the exercises consistently.



- Start slowly and gradually. For each exercise, either time how long you can do it or count the number of times you can do it before you are mildly out of breath. Then rest and move on to the next exercise. Each week, increase the amount of time you do them or how many you do.

- Pick activities that you enjoy.

- Always have a warm-up and cool-down. This is a good time for stretches.

Pay attention to your breathing. Try to breathe slowly to save your breath. Breathe in through your nose, keeping your mouth closed. This warms and moisturizes the air you breathe. Breathe out through pursed lips.

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AVOIDING WEIGHT LOSS WHEN YOU HAVE CHRONIC OBSTRUCTIVE PULMONARY DISEASE



What causes weight and muscle loss in COPD?

While the reasons for weight and muscle loss in COPD are not completely understood, experts believe that it happens because of a combination of factors. These include:

- Using more energy overall (perhaps due to the increased energy required to breathe).
- Using more energy during physical activity.
- Eating less because of shortness of breath. Shortness of breath may make it difficult to shop for, prepare, and eat foods.
- The need for oral corticosteroids, which increase the breakdown of muscle tissue in the body.
- Less interest in food. People who have COPD may be depressed (causing a lack of interest in eating) or may be taking medications that reduce appetite.
- The possibility that COPD may reduce oxygen levels in the blood. This can prevent your body from using food properly.

How do I avoid weight loss in COPD?

If you are beginning to lose weight and muscle mass, you probably need to eat more protein and get more calories. This generally means eating more foods containing fat and protein. Because eating too much fat and targeting certain nutrients (such as protein) may have health risks, always consult with your health professional or a registered dietitian before eating more of these foods to gain weight.

High-calorie, nutritious snacks

Foods that can help you add nutritious calories to your diet include:

- Ice cream.
- Pudding.
- Cheese.
- Granola bars.
- Custard.
- Nachos with cheese.
- Eggs.
- Crackers with peanut butter.
- Bagels with peanut butter or cream cheese.
- Cereal with half and half.
- Popcorn with margarine and parmesan cheese.
- High-calorie nutritional supplements, such as milk shakes



OXYGEN TREATMENT FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)

Treatment Overview

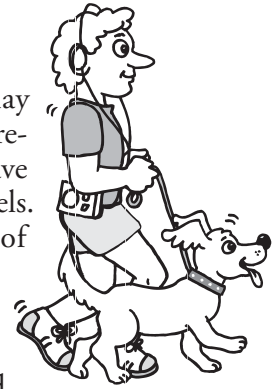
Oxygen treatment increases the amount of oxygen that flows into the lungs and into the bloodstream, may improve shortness of breath, and prolongs survival of some people who have severe chronic obstructive pulmonary disease (COPD).

Oxygen treatment may be given using several delivery systems, including air concentrators, oxygen-gas cylinders, and liquid-oxygen devices.

You do not have to stay at home or in a hospital to use oxygen; oxygen treatment systems are portable and can be used while doing daily tasks.

What To Expect After Treatment

Long-term oxygen treatment may improve your quality of life. It reduces the risk of death if you have severe COPD and low oxygen levels. You may notice less shortness of breath and have more energy.



Why It Is Done

Long-term oxygen therapy is used for COPD if you have low levels of oxygen in your blood (hypoxia). It is used primarily to prevent or slow the progression of right-sided heart failure and to prevent premature death. Oxygen may be given in a hospital if you have a rapid, sometimes sudden, increased shortness of breath (COPD exacerbation) or at home if your blood is too low in oxygen for long periods.

Long-term oxygen therapy should be provided 24 hours a day for full benefit and at least 15 hours a day to lower the risk of premature death. In cases of severe COPD, it should be used continuously for at least 18 hours a day to reduce the risk of death.

How Well It Works

Several studies show that long-term treatment (more than 15 hours a day) with oxygen at home increases quality of life and reduces the risk of death for people with severe COPD. There is no evidence that shows oxygen reduces the risk of death of people who have low oxygen levels only during exercise or during sleep.

Oxygen therapy may also improve confusion and memory problems and impaired kidney function due to low oxygen levels in the blood.

Risks

Generally, there are no adverse effects from oxygen treatment.

The oxygen flow rate should not be set too high; generally, the oxygen saturation is 90%. Higher flow rates usually do not help and can increase the risk that you will breathe too slowly, allowing too much carbon dioxide to build up in your blood.

What To Think About

People who continue to smoke may not benefit much from oxygen therapy.

There is a high risk of fire or explosion if you use oxygen around lit cigarettes or an open flame. If you or those who care for you smoke, oxygen therapy may not be a good option because of this.

You may need oxygen in certain situations, including:

- During exercise. Some people with COPD have their blood oxygen levels dip only during exercise or exertion. Using oxygen during exercise may help boost performance and reduce shortness of breath for some people. There are no studies, however, that have shown any long-term benefits from oxygen therapy use during exercise.

During sleep. During sleep, respiratory function naturally declines because the body doesn't need as much oxygen. Sleep-related breathing disorders are quite common in people with COPD, and many will have significantly low blood oxygen levels during sleep.

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PULMONARY REHABILITATION FOR CHRONIC OBSTRUCTIVE PULMONARY DISEASE (COPD)



Treatment Overview

Pulmonary rehabilitation for chronic obstructive pulmonary disease (COPD) combines a number of different therapies to help reduce your symptoms, improve quality of life, and encourage your active participation in your treatment. It will not reverse the damage to your lungs already caused by COPD. Instead, it will help you improve your ability to carry out daily tasks, such as dressing, grocery shopping, and walking, within the limits of the disease.

Pulmonary rehabilitation programs vary in their scope, duration, and whether they are conducted in an inpatient or outpatient setting. Many types of medical personnel, including physicians, nurses, dietitians, physical and occupational therapists, and respiratory therapists, may be involved with these programs. All programs generally include education and counseling, exercise, nutritional guidance, techniques to improve breathing, and emotional support.

Pulmonary rehabilitation is usually supervised and structured. This means it will include:

- **Medical evaluation and management.** Evaluation of your symptoms and current medical treatment ensures that you can get the most out of the program. A medical evaluation also will pinpoint other concerns, such as heart problems, that might affect your ability to exercise.

- **Short-term and long-term goals.** Once symptoms and other medical problems have been identified, short- and long-term goals are set that reflect specific needs. For instance, some people might want to be able to dress themselves every day while others might want to be able to walk 30 minutes every day. Your ability to exercise and to perform daily tasks is determined before starting the program.
- **Therapy programs.** Which therapy programs you participate in will depend on your needs and goals. For example, if you are a smoker, a smoking cessation program may be the most important short-term goal. See below for specific therapy programs.
- **Evaluation of results.** Each therapy program should be designed so that results can be measured. Measurable results may include easier breathing, the ability to exercise longer, and an improved quality of life.

All pulmonary rehabilitation programs generally include education for both you and your family on how the program affects your COPD symptoms, the importance of the program to your overall health, and how regular participation can help you meet your goals. Understanding COPD—how it progresses and is best treated—makes it easier to live with and manage the disease.

Support and encouragement from friends, family, and health professionals are crucial in helping you stick to your rehabilitation plan. Your health professional may recommend counseling for you and your family. Support groups are available in many cities. These groups can help you and your family cope with COPD and its possible complications.

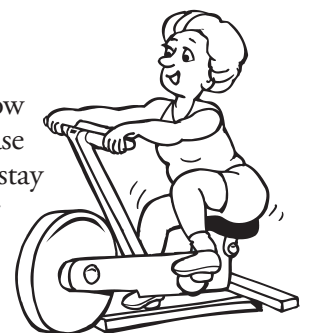
One of the greatest benefits of a pulmonary rehabilitation program is the opportunity to meet other highly motivated people with COPD and exchange information about living with COPD.

Therapy programs

Therapy programs are tailored to meet your specific needs. If you still smoke, stopping is the most important therapy program. Other therapy programs include exercise, breath training, and nutritional guidance.

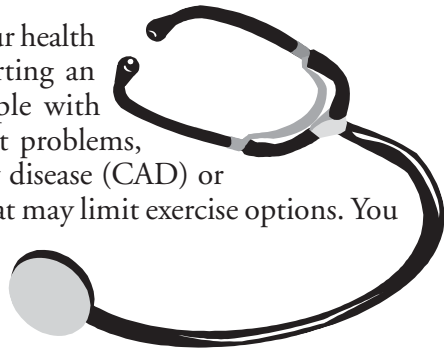
Exercise

Regular exercise can improve how active you can be and can decrease your shortness of breath. If you stay active, you may develop fewer complications, have a better attitude about your life and the disease, and be less likely to be



depressed. Exercise training for COPD often includes aerobic exercise, such as walking or using a stationary bike, and muscle-strengthening exercises for your arms and legs.

Always consult with your health professional before starting an exercise program. People with COPD may have heart problems, such as coronary artery disease (CAD) or high blood pressure, that may limit exercise options. You may need medical supervision when you start the program.



Breath training

If you have severe COPD, you may find you take quick, small, shallow breaths. Breath training can help you take deeper breaths and reduce breathlessness. You must practice breath training regularly for you to do it well.

Three basic breath training methods are diaphragmatic breathing, pursed-lip breathing, and breathing while bending forward. They can be used to help you get through periods when you feel more short of breath.

- **Diaphragmatic breathing** helps your lungs expand so that they take in more air. Lie on your back or prop yourself up on several pillows. With one hand on your abdomen and the other on your chest, breathe in, pushing the abdomen outward as far as possible. You should be able to feel the hand on your abdomen moving out, while the hand on your chest should not move. When you breathe out, you should be able to feel the hand on your abdomen moving in. Once you can do diaphragmatic breathing well lying down, you can learn to do it sitting or standing. Many, but not all, people with COPD find this breathing method helpful. Diaphragmatic breathing should be practiced for 20 minutes, 2 to 3 times a day.
- **Pursed-lip breathing** may help you breathe more air out so that your next breath can be deeper. In this type of breathing, you breathe in through the nose and out through the mouth while almost closing your lips. Breathe in for about 4 seconds and breathe out for 6 to 8 seconds. Pursed-lip breathing decreases shortness of breath and improves your ability to exercise.
- **Breathing while bending forward** at the waist may make it easier for you to breathe. Bending forward while breathing may decrease shortness of breath in those with severe COPD, both at rest and during exercise. This may be because bending forward allows the diaphragm to move more easily.

What To Expect After Treatment

An ongoing pulmonary rehabilitation program can help you function better over the long term. Each program should set short- and long-term goals to help you monitor change and success. This ensures that the program continues to meet your needs.

Why It Is Done

Pulmonary rehabilitation is recommended for people who have respiratory disorders such as COPD. Most people who have COPD can benefit from pulmonary rehabilitation, especially people who use oxygen therapy and have often had to go to the emergency room or hospital. Therapy is not limited to people who have mild or moderate COPD.

How Well It Works

Pulmonary rehabilitation improves quality of life. A review of research reports that participating in pulmonary rehabilitation:

- Relieves shortness of breath and fatigue.
- Gives you more control over your condition.
- Results in greater improvement of quality of life than using other types of treatment, such as medication.
- Modestly improves how much you can exercise.

An effective pulmonary rehabilitation program should be at least 2 months long; the longer the program is, the more effective it is.

Risks

There is little or no risk to these programs if they are well supervised.



What To Think About

The success of pulmonary rehabilitation relies on the relationship between you and your team of health professionals. This team must work with you to achieve goals. It is vital that you take an active role in the program and understand the importance of regular participation.

Although this therapy can improve your daily life, it does not reverse the effects that COPD has had on the lungs or other organs such as the heart. It does not cure COPD. It trains the mind, muscles, and heart to get the most out of damaged lungs.

Pulmonary rehabilitation provides the opportunity to interact with health professionals specializing in lung disease and to exchange information with others about living with COPD.

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HEART DISEASE: SMOKING AND HEART DISEASE

Most people associate cigarette smoking with breathing problems and lung cancer. But did you know that smoking is also a major cause of heart disease for men and women?

About 30% of all deaths from heart disease in the U.S. are directly related to cigarette smoking. That's because smoking is a major cause of coronary artery disease.

A person's risk of heart attack greatly increases with the number of cigarettes he or she smokes. Smokers continue to increase their risk of heart attack the longer they smoke. People who smoke a pack of cigarettes a day have more than twice the risk of heart attack than non-smokers. Women who smoke and also take birth control pills increase several times their risk of heart attack, stroke and peripheral vascular disease.

Cigarette smoke not only affects smokers. When you smoke, the people around you are also at risk for developing health problems, especially children. Environmental tobacco smoke (also called passive smoke or second-hand smoke) affects people who are frequently around smokers. Second-hand smoke can cause chronic respiratory conditions, cancer and heart disease.

How Does Smoking Increase Heart Disease Risk?

The nicotine present in smoke causes:

- Decreased oxygen to the heart.
- Increased blood pressure and heart rate.
- Increase in blood clotting.
- Damage to cells that line coronary arteries and other blood vessels

HONEY SPICE CAKE

For 8 servings

Ingredients

1 3/4 cups all-purpose flour
1 1/2 teaspoons ground cinnamon
3/4 teaspoon baking powder
1/2 teaspoon baking soda
1/2 teaspoon salt
1/2 teaspoon ground allspice
1 tablespoon instant espresso granules or
2 tablespoons instant coffee granules
1/2 cup sugar
1/2 cup honey
1/4 cup canola oil
2 large eggs
1 teaspoon finely grated orange rind
2 teaspoons confectioners' sugar
4 teaspoons honey
1/2 cup plain whole-milk or thick Greek yogurt



Instructions

1. Preheat the oven to 350. Butter a 9-inch round cake pan, and lightly dust with flour. Whisk together 1 3/4 cups flour and next 5 ingredients (through allspice) in a bowl. Dissolve espresso granules in 1/4 cup water in a large bowl. Add sugar, honey, oil, eggs, and rind. Gradually whisk flour mixture into honey mixture. Pour batter into the prepared pan. Bake at 350 for 45 minutes, or until a wooden pick inserted in the center comes out clean. Cool in the pan 20 minutes on a wire rack; remove from pan. Cool completely on rack. Dust cake lightly with confectioners' sugar.

2. Cut the cake into 8 wedges; drizzle each wedge with 1/2 teaspoon honey, and dollop with 1 tablespoon yogurt.

Serving Size: 1 wedge. Yield: Serves 8

Nutritional Information

Calories: 311; Fat: 9g (Sat. Fat: 1g; Mono. Fat: 5g; Poly. Fat: 2g); Protein: 5g; Fiber: 1g; Cholesterol: 55mg; Iron: 2mg; Sodium: 296mg

The goal of *LINCARE News* is to share timely information with clients of *LINCARE*. The contents are selected to provide guidelines for approaching the resolution of problems, but are not intended to provide medical advice for individual problems. The latter should be obtained from your physician.

Courtney Swift, Editor

SUMMER: TIPS FOR ALLERGY RELIEF

Warm temperatures and high humidity can put a strain on seasonal allergy and asthma sufferers. It's a peak time for certain types of pollen, smog, and sometimes mold. Here are some survival tips.

Protect yourself during prime time.

Stay indoors between 5 and 10 a.m., when outdoor pollen counts are usually highest.

Avoid extremes.

Going from intense outdoor heat to high air conditioning can trigger an asthma attack. Be careful.

Keep pollen outdoors.

When mowing the lawn or being around freshly cut grass, wear a mask, such as an inexpensive painter's mask. Take a shower, wash your hair, and change your clothes to remove pollen that may have collected in your clothes

and hair. Dry laundry indoors, not on an outside line.

Patrol your yard.

If you've got weeds such as nettle or ragweed, they could be triggering your allergy problems. Oak, birch, cedar, and cottonwood trees are also irritants.



Beware of bees.

If you're allergic to bees, wear shoes, long pants, and sleeves. Do not wear scented deodorants, hair products, or perfumes.

Take care when traveling.

Pack your medicines with you in a carry-on bag. Bring an extra supply of medicines in case you need them. If you need an allergy specialist while on vacation, you can get names and numbers at www.aaaai.org, the web site of the American Academy of Allergy, Asthma, Immunology.

