

Patient Education: Pulmonary Rehabilitation

A Guide to Managing Chronic Lung Disease through Exercise and Education



The Best Medicine

AT ONE TIME, people who had chronic lung disease and became short of breath when active were told to go home and rest because there wasn't much that could be done for them. We now know that isn't true. Pulmonary rehabilitation is considered the best medicine for people with chronic obstructive pulmonary disease (COPD).

Patients participating in a pulmonary rehab program learn to control their shortness of breath by using different breathing techniques. They learn about their lung disease and medications, learn how to recognize infections so they can start an action plan and avoid hospitalization, and begin an exercise program to build their strength and endurance. Perhaps most importantly, they say, "Yes, I can," to participating in activities and experience an improved quality of life.



Pulmonary rehabilitation is a recognized Medicare benefit for patients with COPD. However, patients with restrictive lung disease may also be good candidates. These patients should check with their local pulmonary rehab program about reimbursement. ■

— June Schulz, RRT, FAACVPR
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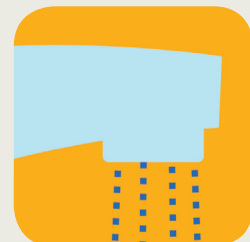
Staying Active
With COPD



Pulmonary Rehab
for Beginners



Fit for Life



Smart Thinking for
Patients With COPD



Getting With the
COPD Management
Program

Staying Active With COPD

Get started with exercises that make it easier to breathe

SIMPLE TASKS like getting up from a chair can leave people with chronic obstructive pulmonary disease breathless. So they may think exercise is out of the question. On the contrary, it's important for even those with advanced lung disease to stay active. When you exercise, your muscles get stronger. Strong muscles need less oxygen. Therefore, exercising actually makes it easier for you to breathe.

Get started

It's important to start slowly. Some people may begin with a few minutes a day, while others are able to do more. Remember to speak with your doctor before beginning an exercise program. He or she can help you decide what level is right for you.

Setting goals helps you stick with your program. Be sure your first goal is one you know you can meet, and then gradually work up to larger goals. Eventually, you'll want to be able to exercise for 20 to 30 minutes repeated three to five times a week. But if you try to do that much in the beginning, you might give up.

A pulmonary rehab program can help you get the most out of exercise. In addition to physical training, rehab programs offer nutrition counseling and education. Plus, programs offer support and supervision for those who aren't confident exercising on their own.

Get going

Always begin exercise with a warm-up period. While simple stretching warms up your muscles, pursed-lip breathing gets your lungs

ready for the pulmonary rehab session.

First, inhale through your nose so your stomach muscles expand, and then exhale through your mouth with your lips pursed. It's important to exhale twice as long as you inhale. Practice the technique for 5 minutes. Once you get the hang of it, you should do pursed-lip breathing during exercise as well.

After warming up, perform your main aerobic activity such as swimming, walking, biking, etc. If you need oxygen therapy during exercise, be sure and use it throughout your workout. Pick activities you enjoy, and alternate them so you're more likely to stay motivated.

Resistance training (lifting a light weight with your arms and legs) is important for making muscles stronger and increasing endurance. This can help you reduce fatigue and reverse deconditioning. Finally, be sure to end your workout with a cool-down activity, which can be stretching, or walking or swimming at a slower pace.

Rewards

Even the smallest amount of exercise is better than none at all. An active lifestyle increases your physical capacity even though impaired lung function continues to persist after exercise training. An exercise regimen will give you more confidence and independence, and make daily activities like shopping and cooking easier. ■

Information adapted from University of Pittsburgh Medical Center, American Association for Respiratory Care, and American College of Sports Medicine.



SCOTT DERBY

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Pulmonary Rehab for Beginners

What to expect on your first day

STARTING A PULMONARY REHABILITATION program is like going to school. The “classes” address subjects such as administering medications, stress management, and smoking cessation. The “teachers” are a multidisciplinary team of health care professionals.

But you don’t have to be a whiz kid for pulmonary rehabilitation to help manage your symptoms and slow the progression of your pulmonary disease. While results vary, the goal is to increase your independence, decrease your hospitalizations, and improve your quality of life.

What to expect

The structure of pulmonary rehab programs varies; the majority of programs are held as group classes, but some are done individually. Most programs encourage family or friends to attend with you.

Before you begin, a pulmonary rehabilitation team member will talk with you about your chronic lung disease and its physical and emotional effect. They will determine whether you need testing such as pulmonary function tests and chest X-rays. They also may have you take a short quiz about lung diseases and ask you to set goals for your progress.

For your first class, wear comfortable clothing and walking shoes. Make sure to bring your fast-acting inhaler, supplemental oxygen equipment, and other prescribed medications.

A staff member will measure the distance you are able to walk in six minutes while a device called a pulse oximeter determines the amount of oxygen in your blood through a clip on your finger or a forehead sensor. The test results will help the rehabilitation team assess your functional exercise capacity and develop an exercise program tailored to your abilities.

Exercise training

As your weeks of pulmonary rehabilitation progress, you will practice a regimen of stretching, aerobic activities like walking, and strength exercises using free weights and resistance bands. A typical exercise prescription emphasizes endurance training for 20 to 30 minutes repeated three to five days a week.

It’s important to exercise at home as well. This “homework”



includes walking, bicycling, swimming, or other activities recommended by your rehabilitation team. Keep up this routine even after completing rehabilitation to ensure its long-term effectiveness. Patients who stop exercising following rehabilitation typically return to their previous state of health within 12 to 18 months.

The rehabilitation team also will show you how to conserve energy and pace yourself during exercise and daily activities. They will demonstrate strategies to help reduce your shortness of breath.

Increasing Awareness

A comprehensive pulmonary rehabilitation program will teach you to pay attention to your body. You’ll learn to prevent respiratory infections by avoiding crowds, getting flu or pneumonia shots, and using antibacterial wipes or gels.

Medicare pays for 36 hours of pulmonary rehab sessions. More may be available if clinically warranted. Program costs vary greatly by location, but many therapies are covered by insurers. Check with your local pulmonary rehabilitation provider for further information.

With a little effort, you’re sure to graduate pulmonary rehab with flying colors. Just don’t forget the homework. ■

Information provided by Lana Hilling, RCP, FAACVPR, pulmonary rehabilitation coordinator of John Muir Health in Concord, Ca. and adapted from National Lung Health Education Program guidelines.

TOM WHALEN

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Fit for Life

Keep up with pulmonary rehab exercises at home

FITNESS BUFFS WILL TELL YOU their workouts don't end after they leave the gym. Staying in shape means making changes at home too. The same goes for pulmonary rehabilitation. A home exercise routine can help to maintain your lung function and improve your overall well-being.

Think of your pulmonologist, respiratory therapist, and primary care physician like a team of personal trainers. A pulmonary rehabilitation program is a great place to learn how to do the proper exercises with a health care professional's guidance and expertise. They'll create an at-home exercise plan and suggest lifestyle changes to help you to reach long-term goals after your formal pulmonary rehab sessions end.

Talk with your pulmonary rehab team about your living situation and surroundings. Perhaps you already have a treadmill, stationary bike, or light free weights to use at home. If you don't, they can suggest resources in your area such as a community or senior center that has exercise equipment.

They also can recommend simple strategies to fit in the recommended 20 minutes of continuous walking a day. You could do laps at a local mall or high school track, stroll around your block or apartment building, or even just walk the length of your hallway a few times.

While aerobic exercise focuses on your cardiovascular endurance, strength training keeps your upper body in shape. Some people like to use light free weights or resistance bands; others use items from their pantry like soup cans or water bottles. Your pulmonary rehab team will advise you on the ideal amount of weight, type of exercise, and number of repetitions to improve your strength and muscle tone.

When you leave a formal pulmonary rehab program, you may miss the social support and motivation that it offered. Signing up for a gym membership, finding a workout buddy, or making an arrangement with a family member can increase the chances that you'll stick with the routine.

Safety first

While a regular exercise routine is important, be careful not to overdo it. Your pulmonary rehab team will identify stretching and warm-up



exercises that start at a low intensity and then gradually increase your heart and breathing rates. At the end of your exercise routine, it's also important to slow your pace for five minutes to cool down.

Watch for signs of a possible exacerbation. The providers at your pulmonary rehab program can help you become familiar with your breathing levels and what to do if you experience shortness of breath.

If you use long-term supplemental oxygen, your pulmonary rehabilitation team will determine which oxygen flow rates you should use during periods of rest and exercise. They may recommend that you use a fingertip pulse oximeter at home to occasionally assess your oxygen level.

Finally, listen to your instincts. If something doesn't feel right, stop doing it immediately, and call your primary health care provider. You may need to limit your activities until the problem is resolved.

Regular exercise has many benefits. The stronger the muscles you use for breathing become, the more efficiently your body will use oxygen. Staying fit also can help lower blood pressure, lose weight, and manage stress. Keep up the progress you made in pulmonary rehab by following an exercise routine that is convenient and enjoyable. ■

Information provided by Peter J. Rising, MS, manager of the pulmonary function laboratory at Temple University Health System, Philadelphia.

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Smart Thinking for Patients With COPD

Avoid hospitalization and improve health

CHRONIC OBSTRUCTIVE PULMONARY DISEASE, like a force of nature, can't really be stopped. But if a hurricane was coming your way, you wouldn't just sit around twiddling your thumbs, right?

Odds are you would board up the windows, pack up the china, and so forth in your best effort to minimize the damage. It's to your benefit to approach COPD in the same way. You can take measures to reduce the risk of exacerbations — serious symptom flare-ups that can land you in the hospital and lead to debilitating or even fatal complications.

Knowing symptoms and triggers

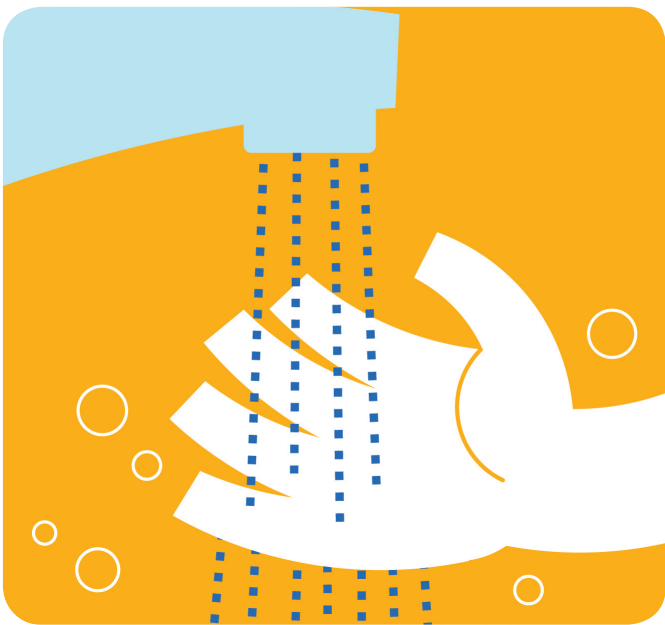
For starters, you should know the symptoms of an exacerbation, so that you'll recognize when you're actually having one. Symptoms include increased or prolonged breathlessness, coughing, sputum (mucus) production, wheezing, chest tightness, and fever. Keep track of how many and how severe your symptoms are, and share this information with your physician. A simple breathing test called spirometry can help to determine if your lung function is declining.

In addition, you should become aware of what aggravates your COPD. Evidence suggests 80 percent of COPD exacerbations are infectious in origin, so practice good hand hygiene, and avoid people with colds or other respiratory illnesses.¹ Make sure you get your annual flu shot because the vaccine can decrease serious complications and death in COPD patients by as much as 50 percent.² Ask your physician if you're a good candidate for the pneumonia vaccine as well.

Pollution is another major trigger of exacerbations for people with COPD, so minimize exposure to environmental irritants such as dust, chemicals, and secondhand smoke. Stay inside on high ozone days.

Healthy living

Proactive approaches like a balanced diet, a good night's sleep, and maintaining a healthy weight are good ideas for anyone, but they can be especially valuable to COPD patients who want to improve their quality of life. It's also wise to make an effort to keep your emotions in check, because depression and anxiety can lead to a higher frequency of exacerbations.³



Exercise in the form of pulmonary rehabilitation is suggested for people looking to avoid exacerbation relapse because pulmonary function declines after each episode. Staying active can help strengthen the muscles you use to breathe.

But the most important lifestyle change you can make is to quit smoking to slow the progression of lung inflammation that causes COPD.

Managing therapies

Following the medication plan prescribed by your doctor is another simple way to manage your disease. Take your maintenance medications daily to keep symptoms under control and reduce your need for rescue medications. If you use supplemental oxygen, be sure that you're using the appropriate levels prescribed for periods of activity and rest.

Remember, despite your best efforts to prevent them, COPD exacerbations are common and can occur suddenly. Be sure to know how and when to use your rescue medications, and go to the emergency room if necessary. ■

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DAVE PERILLO

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Getting With the COPD Management Program

A look at resources that can help you manage your COPD

MANY EMPLOYERS and health insurance plans now offer disease management programs for a number of medical conditions. You might have heard about some for weight management or diabetes care, but did you know there also are many to help you manage your chronic obstructive pulmonary disease (COPD)? More companies have been adding COPD disease management programs to their list of benefits, so let's take a look at what they have to offer.

A quick review

COPD disease management programs combine a number of ways to help you improve control of your COPD symptoms and lessen harmful effects. Disease management professionals use a team approach to care rather than just giving you directions. They work with you to improve your treatment plan, watch your progress, and often provide support after hours.

Some programs send a health care professional to meet with you regularly at your home and then follow up with phone calls or emails in between visits. Others don't require any face-to-face meetings. They might send you educational materials by mail and check your progress by phone or email.

The length and make-up of the program usually depend on the stage of your disease and the amount of time you're willing to commit. For some people, it might last a few months, while others choose to continue for a few years. As you progress, your health care providers will tailor the program to fit your changing needs.

Tests, tips, and techniques

Even though you'll find differences in how care is provided through these programs, you'll find they share the same basic ideas. The first step in any COPD disease management program is a general review of your health to figure out what level of care you need.



Health care providers will check basic vital signs and perform more specific tests to examine your lungs, breathing, exercise levels, and oxygen.

A simple test called spirometry measures how much air you can breathe in and out, and how fast you can blow the air out of your lungs. A finger probe called a pulse oximeter also can measure the oxygen levels in your blood.

They'll use these and other results to help you come up with goals and a personalized plan to recognize your symptoms and steer clear of risks like smoking, dust, and people who are not well.

This might include lifestyle changes like quitting smoking, a healthy diet, exercise, and flu shots every year. Overall, they'll teach you how to use your medications, how to stick with your treatment, and how to track and respond to your symptoms.

If you're looking for something a little more intense and hands-on, find out if your health insurance offers coverage for pulmonary rehabilitation programs. They incorporate similar lessons but provide more direct contact with medical professionals, usually through two to four visits at a medical facility each week.

Many resources are available to help you manage your disease. Regardless of which one you choose to use, working to get your disease under control is the first step to improving your health and quality of life. ■

Information provided by Jakki Grimball, MA, RRT, AE-C, asthma and COPD program administrator at BlueChoice HealthPlan.

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