LIVING WELL WITH Chronic Lung Disease
A Guide for Patients, Families, and Caregivers

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How to Use This Guide

**Print.** Print out materials that can help you manage your heart disease. To use this feature, install the free Adobe Acrobat Reader (https://get.adobe.com/reader/)

**Audio.** Listen to the audio version of the information on the pages you are viewing. Audio buttons will launch a control bar at the bottom of the screen. Use it to play, pause, and resume the audio. It will also feature a progress bar.

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**Bold Dark Red Text.** Move your mouse cursor over any bold text (in orange) and a definition of the word will pop up on the screen.

**Quiz.** At the end of each chapter there is a quiz to help you find out how much you have learned. Click the question mark icon to launch the quiz in a separate window.

**Help.** Move your cursor to the top or bottom of the page. A menu bar will appear. Click the icons to reveal a list of options, including help.
CHAPTER 1: Living with Chronic Lung Disease

You CAN Live Well!

When you have chronic lung disease, it can be hard to do things that used to be easy. Things like climbing a flight of stairs. Playing a round of golf with friends. Keeping up with your kids or grandkids. If this sounds familiar, there’s good news. Pulmonary rehabilitation can help you breathe easier, get stronger, and do more in your daily life. You’ll be surprised by how much you can still do!

What Is Chronic Lung Disease?

Chronic lung disease, also known as COPD, is an ongoing problem that keeps you from breathing normally. Many conditions are considered chronic lung disease. These include emphysema, chronic bronchitis, chronic asthma, restrictive lung disease, and cystic fibrosis. If you have chronic lung disease, you probably also have dyspnea—the medical word for shortness of breath. You may have even started avoiding certain activities because you’re afraid of getting short of breath. This is very common. You’ll be glad to know you don’t have to live this way anymore.

What Is Pulmonary Rehabilitation?

Pulmonary rehabilitation, also called rehab, is a program that will teach you to live and breathe better with chronic lung disease. The program is run by a team of medical professionals who are specially trained to treat people with lung disease. With the team’s help, you’ll learn about your condition and gain skills to help you manage it. Pulmonary rehab often takes place in a group setting. This means you’ll have support from others with many of the same concerns, fears, and goals as you.
Using This Workbook

You’ve been given this workbook because your healthcare provider thinks pulmonary rehab is right for you. Pulmonary rehab gives you the tools to help you breathe better and do more in your daily life. This workbook will help you put these tools to good use. It also supports what you learn in the program. You’ll learn:

- Techniques for breathing better.
- How to do the things you want to without shortness of breath getting in the way.
- When, how, and why to take your medications.
- Safe ways to exercise so you can get stronger and increase how much you are able to do in your daily life.
- Ways to stay motivated so you can work toward your goals.
Learning About Your Lungs

To get the most out of treatment, it helps to know more about the lungs. The job of the lungs is to get air and gases into and out of the body. Chronic lung disease interferes with this process.

Healthy Lungs

Inside the lungs there are branching airways made of stretchy tissue. Each airway is wrapped with bands of muscle that help keep it open. The airways get smaller as they go deeper into the lungs. The smallest airways end in clusters of tiny balloon-like air sacs, known as alveoli. These clusters are surrounded by blood vessels.

When You Breathe

When you inhale, or breathe in, air enters the lungs. It travels down through the airways until it reaches the air sacs. When you exhale, breathe out, air travels up through the airways and out of the lungs.

What the Lungs Do

The air you inhale contains oxygen, a gas your body needs. When this air reaches the air sacs, oxygen passes into the blood vessels. Oxygen-rich blood then leaves the lungs and travels to all parts of the body. As the body uses oxygen, carbon dioxide, a waste gas, is produced. The blood carries this back to the lungs. Carbon dioxide leaves the body with the air you exhale. The process of getting oxygen into the body and carbon dioxide out is called gas exchange.

How Mucus and Cilia Clean the Lungs

The cells in the lining of the airways produce a sticky secretion called mucus. The mucus traps dust, smoke, and other particles from the air you breathe in. The cells have tiny hairs called cilia. These sweep mucus up the airways to the throat, where it’s coughed out or swallowed. This process helps to clean the airways and prevent infection.
Chronic Lung Disease

Chronic Obstructive Pulmonary Disease
Obstructions, or blockages in the airways make breathing harder and can affect gas exchange. Chronic obstructive pulmonary disease, also known as COPD, is a category of diseases usually caused by smoking:

- **Chronic bronchitis.** More mucus is produced than normal. Mucus builds up, blocking the airways. The airways may also become inflamed (swollen), so there’s less space for air to pass.

- **Emphysema.** Damaged airways lose their stretchiness, or elasticity, and get baggy. They may collapse when you exhale, trapping air in the sacs. This trapped air makes breathing harder. Over time, the air sacs lose their clustered shape. This may mean less oxygen enters the blood vessels.

Chronic Asthma
The airways become inflamed and narrowed. The muscles surrounding the airways go into spasms and tighten. This makes it hard for air to pass through the airways.

Interstitial Lung Disease
Scarring or inflammation damages small airways in the lungs. This makes breathing harder and may interfere with oxygen entering the blood vessels.

Other Conditions
People who have cystic fibrosis, bronchiectasis, lung cancer, and other chronic lung diseases can also benefit from pulmonary rehab. In addition, pulmonary rehab can help people who have had or who are preparing for lung surgery.

When Cilia Are Damaged
Smoking harms the cilia that line the airways. Damaged cilia can’t sweep mucus and particles away. Some cilia are even destroyed. This damage makes the problems described above even worse. If you quit smoking, though, remaining cilia may start working again.
Your Diagnosis and Treatment

To confirm a diagnosis of chronic lung disease, your doctor starts by asking about your symptoms and doing a physical exam. Tests are then ordered to find out more about your lungs. Based on the findings, a treatment plan is then developed just for you.

Tests You May Have

- **Pulmonary function tests** measure the flow of air into and out of your lungs, and the volume of air your lungs can hold.

- **Pulse oximetry** shows how much oxygen is in your blood, called oxygen saturation. This may be done at rest, as well as during and after exercise.

- **Arterial blood gas tests** measure levels of oxygen and carbon dioxide in your blood.

- **Chest x-rays** show the size and shape of your lungs. They can also show certain problems in the lungs.

- **CT, or computed tomography** are scans that produce images of the lungs that are more detailed than x-rays.

Tests and Diagnosis

Even if you have the same symptoms as others in your pulmonary rehab program, chances are you don’t all have the same lung disease. It’s good to know your diagnosis. This way, you can understand why certain treatments have been prescribed. Print this PDF and use it to write down your diagnosis and keep track of tests you may take.
The Role of Treatment

Treatment will help reduce your symptoms and improve the quality of your day-to-day life. There are many types of treatment for chronic lung disease. Your doctor will review all of your options with you and help you form the best treatment plan for your needs. The pulmonary rehab team will help you understand your treatment plan and how to make good use of it. As you work with your doctor and team, don’t hesitate to ask questions to get the information you need.

Your Role

Your doctor and pulmonary rehab team are here to help. But the success of treatment comes down to you. As part of rehab, you’ll learn breathing techniques to help your lungs work better. Exercises will be taught that increase strength and endurance. You’ll also learn ways to conserve energy so you can do more of the things you want without shortness of breath. These are just a few of the tools that pulmonary rehab will give you. Your job is to put these tools to use to stay as active and healthy as possible.

My Treatment Plan

Some treatments help in all cases of chronic lung disease. Others are prescribed just for you, based on your condition and symptoms. The result is an individual treatment plan tailored to your needs. Your doctor or a member of your pulmonary rehab team can help you make a list of items that are part of your plan. Print the PDF below and use it to write down your plan.

- Breathing retraining
- Exercise
- Energy conservation and pacing techniques
- Medications
- Treatment for anxiety or depression
- Stress management and relaxation techniques
- Techniques for coping with chronic illness
- Special diet
- Symptom management and prevention
- Help for sleep disorders
- Airway clearance techniques
- Oxygen therapy
- Quitting smoking

This product is not intended as a substitute for professional medical care. Only your doctor can diagnose and treat a medical problem.

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Getting Started with Pulmonary Rehabilitation

Pulmonary rehab is designed to cover all aspects of your treatment plan. In the program, you’ll learn the skills you need to manage chronic lung disease in all areas of your daily life. This may mean making some changes to your lifestyle. Your doctor and pulmonary rehab team will help you set realistic goals. This lets you make changes gradually and effectively.

Your Program

Your pulmonary rehab program may take place in a hospital or clinic. Each session can cover a variety of topics. These can include education about lung disease, techniques for breathing better and conserving energy, exercise, and emotional support. If you are not in a formal program, this guide, along with your healthcare provider, can help guide you through your treatment.

Team Members

The pulmonary rehab team usually includes doctors, nurses, and respiratory therapists. The team may also include exercise specialists, physical and occupational therapists, dietitians, pharmacists, and counselors. Although most programs take place in a group setting, these team members will help you one-on-one when you need it.
Making Changes that Work for You

To reach your goals, you’ll probably need to make a few changes to your lifestyle. These tips can help make changes go more smoothly:

- **Expect new emotions.** It’s common to resist or feel angry or scared about having to make changes. You’re not alone. Share your feelings with the pulmonary rehab team and people close to you.

- **Prepare yourself for slow, steady progress.** Change doesn’t happen overnight. To feel your best, you need to commit yourself to practicing your new skills. Over time, you’ll be stronger, have more control of shortness of breath, and be able to do more. But only if you continue to work at it.

- **Get support.** Allow family and friends to support your efforts. Tell the people in your life how they can help you reach your goals. Share your ideas and tips for success with other members of your pulmonary rehab group. Also, don’t be embarrassed to ask for help.

### Goals to Consider

Are there things you can’t do now that you’d like to be able to do when your pulmonary rehab program is finished? The statements below may apply to you. You may have ideas of your own to add to this list. Keep these goals in mind when you hit rough spots. Print a copy of the sample list below and use it to track your progress.

**I want to:**

- Breathe better.
- Exercise.
- Understand my lung disease and what I can do to feel better.
- Have energy to enjoy my children and grandchildren.
- Rely less on others.
- Be stronger.
- Do everyday activities such as climbing stairs with less shortness of breath.
- Return to my hobbies and leisure activities.
- Be healthier and more active so I can enjoy my retirement.
- Quit smoking.
- Feel less anxious about my condition.
- Travel and enjoy myself.
- Make fewer visits to the hospital or emergency room.
Congratulations!

You’ve just finished Chapter 1. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 2
Breathing Retraining
Breathing retraining involves learning techniques to help lessen shortness of breath without using much energy. Two techniques you may learn include pursed-lip and diaphragmatic breathing. With practice, you’ll be able to use these techniques during everything you do.

### Pursed-Lip Breathing

This type of breathing helps you exhale better. It helps get trapped air out of the lungs. You can practice breathing this way anytime, anywhere. If you’re watching TV, practice during the commercials. Try to practice several times a day. Over time, pursed-lip breathing will feel natural.

- First, relax your neck and shoulder muscles. Inhale slowly through your nose for at least 2 counts.
- Then, pucker your lips as you would if you were blowing on a spoonful of hot soup. Exhale slowly and gently through your pursed lips for at least twice as long as you inhaled.

### Try This

Need help getting the hang of pursed-lip breathing? Try blowing bubbles! Get a bottle of kids’ bubbles that comes with a wand. Then follow the steps you have learned. What do your bubbles look like? If you have lots of little ones, you’re breathing too fast. No bubble? You’re not breathing hard enough. Aim for one slow, big bubble that hangs on the wand.
Diaphragmatic Breathing

The diaphragm is a dome-shaped muscle located under the lungs. With chronic lung disease, you may use your accessory muscles, located in the chest, shoulders, and neck, instead of your diaphragm to help with breathing. Using more muscles takes more effort and makes shortness of breath worse. So practice breathing with just your diaphragm. By using only one muscle to breathe instead of many, you’ll use less energy.

The Dyspnea Cycle

When you’re short of breath, your muscles tense. You may get anxious and start to panic. Then you may become even more short of breath. This sequence is called the dyspnea cycle. Over time, this cycle can affect your emotional health and quality of life. But you have the power to break the cycle. Use the breathing techniques you’ve learned. Also, try the following:

- Exercising, so your body can handle more activity with less shortness of breath
- Conserving your energy and pacing yourself, so you can do more before becoming short of breath
- Using relaxation techniques

- Sit or lie on your back so you feel at ease. Inhale slowly through your nose. Count to 2. As you inhale, your stomach should move out.
- Then, breathe out through pursed lips. Count to 4. As you exhale, your stomach should move in.

Diaphragmatic Breathing
The diaphragm is a dome-shaped muscle located under the lungs. With chronic lung disease, you may use your accessory muscles, located in the chest, shoulders, and neck, instead of your diaphragm to help with breathing. Using more muscles takes more effort and makes shortness of breath worse. So practice breathing with just your diaphragm. By using only one muscle to breathe instead of many, you’ll use less energy.

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Chapter 2 Quiz

Congratulations!

You’ve just finished Chapter 2. Now click on the question mark above to find out how much you learned.

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CHAPTER 3: Exercise

Taking the First Steps

Exercise has helped thousands of people with chronic lung disease regain more control over their lives. It can help you, too! You’ll get started in pulmonary rehab. The pulmonary rehab team will help you set safe, realistic goals. To have lasting results, you must make a lifelong commitment to exercise. This means you need to keep up with it even after your pulmonary rehab program has ended.

Assessing Your Needs

Before you begin an exercise program, the pulmonary rehab team will assess your needs. You’ll be asked about your health history, symptoms, and physical limitations. If you have joint pain or other health problems, be sure to mention them. This lets the team make sure you stay safe and comfortable during exercise.

How Far Can You Walk?

The pulmonary rehab team needs to know how much you can safely do right now. To find out, you may have a 6-minute walk test. This isn’t a race. It involves walking on a flat surface, such as a hallway or short track. The test shows how far you can walk in 6 minutes, and what symptoms occur. A team member will ask about your shortness of breath or if you have any pain. Your heart rate and oxygen saturation levels will be checked, too. During the test, you can stop and rest if you need to. Once you catch your breath, keep going.

Your Oxygen Levels

A pulse oximeter is a small instrument that measures the amount of oxygen in your blood. A small sensor placed on your finger, earlobe, or forehead measures blood oxygen levels before, during, and after your walk test. This information helps the team determine whether or not supplemental oxygen should be prescribed for you. You may need supplemental oxygen during exercise even if you don’t use it at other times. If you already use oxygen, you may need a different flow rate during exercise.
An Exercise Program Just for You

You’ll follow an exercise program that’s been specially designed for people with chronic lung disease. This program will be tailored to your needs. In other words, it’s an exercise program just for you. You’ll have support every step of the way.

- **Starting out:** The staff will help you get started slowly and safely. With each exercise session, you’ll do a little more than you did the time before.
- **In the long run:** You’ll probably work up to about 30 to 60 minutes of exercise a day, most days of the week. You’ll likely be exercising at the pulmonary rehab facility as well as at home.

Achieving Your Goals

Exercise will be most rewarding if you’re working toward a goal. What are the things you would like to be able to do that you can’t do now? Talk to the pulmonary rehab team about how exercise can help you meet these goals. Sometimes it helps to break up big goals into smaller ones. Say your long-term goal is to play a round of golf. To approach this, you could start with a smaller goal of hitting a bucket of balls. When you’ve mastered that goal, you could move on to playing a few holes. Each time you meet a smaller goal, you’re one step closer to reaching the big one.

What’s Stopping Me?

It’s easy to think of reasons why exercise is hard. Try to face your fears and excuses head-on. What’s stopping you from exercising? What comes to mind? For each, try to think of at least two possible solutions. Use this printable worksheet to list your barriers, along with your ideas for overcoming them.
Learning the Basics

Your exercise program will include a variety of activities that work different parts of the body. You’ll be taught how to measure your effort and how to stay safe. You’ll also be taught how to track your progress as you work toward your goals.

Building Your Exercise Program

A balanced exercise program generally includes the three types of exercises described below. Your pulmonary rehab team will prescribe and teach you exercises of each type to include in your program.

- **Endurance or aerobic exercises**
  help improve the function of your lungs and heart. Walking, biking, and swimming are endurance exercises. They build stamina, which helps you do more in daily life.

- **Strengthening or resistance exercises**
  help improve strength and maintain bone health. Lifting weights and working with resistance bands are good ways to increase strength. When you are stronger, common activities such as lifting a grocery bag or opening a heavy door will take less effort and cause less shortness of breath.

- **Flexibility exercises or stretching**
  help improve range of motion, posture, and breathing. Stretching may also reduce muscle soreness caused by endurance or strengthening exercises.

If you don’t have weights, try using a pair of water bottles for strengthening exercises.
How Hard Should You Exercise?

Test results help the pulmonary rehab team decide how hard you should exercise. The goal is to exercise at a level that is safe but beneficial for you. You may wonder how you can exercise without becoming short of breath. The answer is, you can’t. But this isn’t necessarily bad. Shortness of breath is a sign that you’re pushing yourself. Your pulmonary rehab team will teach you how to monitor and rate shortness of breath as you exercise. This will help you gauge how hard you’re working. Try to exercise at the level specified by your rehab team.

Breathing During Exercise

Use pursed-lip breathing during exercise. Exhale during the exertion part of the exercise. This is when you’re using the most effort. For instance, when doing bicep curls, exhale as you lift the weights and inhale as you return your arms to start position. Never hold your breath!

Stop If...

Exercise is intended to help you get stronger and breathe better. But stop if an activity hurts or causes any of the symptoms below:

- Pain, discomfort, burning, tightness, heaviness, or pressure in your chest, neck, jaw, shoulders, arms, or back
- Severe shortness of breath
- Light-headedness, dizziness, or nausea
- Headache

Call your doctor or tell a member of the pulmonary rehab team if any of these symptoms gets worse or doesn’t go away with rest.

Checking Your Heart Rate

You may be told to monitor your heart rate during exercise. This is the number of times your heart beats per minute. Place two fingers, but not your thumb, on the inside of your wrist. Count the number of beats you feel for 10 seconds. Multiply the number of beats by 6. Your healthcare provider may have told you what the rate should be when you exercise. This number is called your target heart rate.
Tips for Getting Started

As you start exercising regularly, the following tips will help both at the pulmonary rehab facility and at home. There are also specific exercises shown that may be part of your pulmonary rehab program. NOTE: Not all these exercises are safe for all patients. Check with your pulmonary team or doctor before trying any new exercises.

Preparing for Your Workout

- Plan your workout for the time of day when you normally have the most energy.
- Dress for comfort. Wear shoes that fit well and support your feet.
- Use a quick-relief inhaler, also called a “rescue” or “fast-acting” inhaler, before each exercise session, if one has been prescribed.
- Clear your lungs of mucus, if needed.
- Use oxygen if it’s prescribed for use during activity. Increase the flow rate ONLY if your doctor has told you to. Increasing it on your own can be dangerous.
- Check the weather before you start. On warm or humid days, reduce your workout, rest more often, and drink extra fluids. Exercise earlier in the day, before it gets hot. If it’s cold outside or if air quality is poor, exercise indoors. Walk inside your home or in a mall.

A Safe Workout

1. **Start with a warm-up.** This gets your muscles ready for exercise. The warm-up can consist of lower intensity exercise that targets the specific muscles you will be using during your workout.
2. **After your warm-up,** progress to higher intensities of activity. Remember to pace yourself and do pursed-lip breathing.
3. **End with a cooldown.** Toward the end of your workout, decrease the intensity so your body can cool down. Then do some stretches to help relax your muscles and limit muscle soreness.
4. **Rest and relax.** This is a good time to practice pursed-lip breathing.
Staying Safe During Exercise

- Follow the guidelines your pulmonary rehab team has set for you.
- Drink plenty of water before, during, and after exercise.
- Keep your quick-relief inhaler with you. Use it if you need to.

Doing More Over Time

As you get stronger, work toward a goal of 30 to 60 minutes of exercise, most days of the week. Here are some ways to reach that goal:

- Attend the maintenance exercise sessions of your pulmonary rehab program. If this isn’t possible, join a gym or exercise with a partner.
- Keep exercise interesting by doing things you find enjoyable.
- Wear a watch or other fitness tracking device and keep a diary to track your progress. Set small goals to challenge yourself.
- Increase your workout by a little bit each week, until you’ve reached your goal.
- Once your workouts have reached their goal length, increase how hard you work. For example, try walking a little faster than your usual pace.

Exercising with a partner or friend keeps boredom away and makes the time pass quickly.
Increasing Endurance

Endurance exercises help work the heart and lungs. These are aerobic exercises, meaning they help your body use oxygen better. Over time, they’ll help you have more energy and less shortness of breath. Do each of the exercises for only as long as your pulmonary rehab team recommends.

Recumbent Step Program

1. Adjust the seat. You should have a slight bend at the knee when the foot pedal is fully forward. Set the arm handles to maintain a slight bend at the elbow.

2. Place your feet squarely on the pedals. Push with your leg muscles. Most of the work should be done with the muscles in your thighs.

3. Set the resistance to low and step at a comfortable rate.

Riding a Recumbent Stationary Bicycle

1. Adjust the seat so your knees are only slightly bent when the pedals are at their lowest points.

2. Begin to pedal at a comfortable pace. Do pursed-lip breathing as you pedal.

3. In time, your pulmonary rehab team may suggest adding resistance to make your muscles work harder.
Using a Treadmill

Make sure you know how the treadmill works before using it. The pulmonary rehab team can show you.

1. Start walking at a comfortable pace. Do pursed-lip breathing as you walk.
2. As you get stronger, your pulmonary rehab team may suggest increasing speed or adding elevation.

Home Walking Program

Start slowly. Build up to your normal rate. Increase your rate when possible. When you are ready to work harder, begin walking up a small incline or hill.

1. Do pursed-lip breathing and pace yourself while walking.
2. Finish by stretching your arms and legs. Try to hold each stretch for 20 seconds.
3. Walk for 20 to 30 minutes unless the rehab team tells you differently.

A wheeled walker can make walking easier and also help you save energy.
Increasing Flexibility and Strength

If instructed, do the following stretches and strength exercises below. Move slowly and smoothly. Exhale gently through pursed lips as you do each exercise. Make sure you follow any special instructions from your pulmonary rehab team or healthcare provider.

**Head Tilt**

1. Sit or stand with shoulders relaxed. Breathe in.
2. Slowly lower your chin as you blow out. You’ll feel a stretch in the back of your neck.
3. While inhaling, return to starting position. Then exhale, slowly moving your head right and left as if you are saying “no.”

**Shoulder Rolls**

1. Stand with shoulders relaxed. Put your hands on your hips or keep your arms at your sides (do what is most comfortable).
2. Breathe in. Slowly breathe out while rolling your shoulders forward. Continue until you’re done exhaling. Then relax.
3. Repeat step 2 while rolling your shoulders backward.

**Calf Stretch**

1. Stand facing a wall, feet side by side. Put your arms out at shoulder level. Rest your hands against the wall with your elbows slightly bent. (Don’t push against the wall.)
2. Step back with your right foot. Gently lower the heel to the floor. Keep your toes pointing forward, left knee slightly bent. Feel the stretch in the back of your right calf (lower leg).
3. Do pursed-lip breathing as you hold the stretch for 15 to 30 seconds.
4. Return to starting position. Repeat using your other leg.
Resistance Work

1. Stand with feet slightly apart. Hold both ends of a resistance band. Raise your hands to chest height.
2. Exhale through pursed lips as you stretch the band outward. Stop when you feel tension between your shoulder blades.
3. Inhale, holding this position. Then exhale as you squeeze your shoulder blades together.
4. Inhale as you slowly return to starting position. Repeat as directed.

*Note: Keep your wrists and forearms horizontal to the ground. Do not lift your shoulders.*

Biceps Curl

1. Stand or sit with a weight in each hand. Keep arms straight and very close to your sides, palms facing forward. Inhale.
2. Exhale as you slowly bend your arms and lift the weights to shoulder level.
3. Inhale as you slowly return to starting position. Repeat as directed.

*Note: If you don’t have weights, use bags of dried beans or soup cans instead.*

Sit-to-Stand

1. Sit toward the front of a sturdy, hard chair. Keep feet hip-width apart and arms at your sides (or crossed over your chest).
2. Lean forward at your hips (don’t bend at the waist). Inhale.
3. Exhale as you stand up slowly. Don’t use your arms.
4. Lean forward and slowly sit down again.
Keep Moving!

You’ve taken the first steps. Now you need to stay on track. Think about what you can do to make exercise a way of life. How can you work it into your daily routine? How can you make it enjoyable? The suggestions below may lead to some ideas of your own.

Make Exercise Part of Your Day…

- Start your day with some simple stretches before you get out of bed.
- While watching TV, stretch your arms and legs.
- Park your car a little farther from a store and walk the rest of the way.
- Go to your favorite store and walk up and down the long aisles.
- Use a device, such as a pedometer, to track how many steps you take each day. Most smartphones also have applications that allow you to track your steps and daily physical activity.
… And Make It Fun!

- Visit with friends by walking around the neighborhood together.
- Take your dog for a walk in the park.
- Walk through a museum, mall, or zoo with your family.
- Bowl, fish, or golf with friends.
- Put a photo of your kids or grandkids near your exercise spot for motivation.
- Read a book or magazine or watch a movie while you ride an exercise bike.
- Listen to music while you exercise.

My Exercise Log

With the help of this printable log, you can keep track of your activities and your progress throughout the week. Use the chart to write in the amount of time you spend doing different types of exercise. You may be surprised at how it adds up!
Congratulations!

You've just finished Chapter 3. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 4: Energy Conservation

Ways to Save Energy

By doing some of your routine tasks more efficiently, you can do more with less shortness of breath. It’s even okay if you’re short of breath sometimes. You can learn to work through this without limiting your activities. As you go about your day, remember to Plan, Prioritize, Position, and Pace.

Plan Ahead

Planning your day saves time and energy. It also helps you avoid last-minute rushing.

- Write down your plans for the day, or even the week. Enter or record them on your personal computer or smart phone.
- Figure out your best times for being active. You may have the most energy in the late morning. If so, cook dinner then and heat it up later. You could also prepare extra food and freeze it.
- Plan rest breaks after meals and throughout the day.
- Switch between lighter and heavier activities.

Prioritize Your Efforts

Use your energy wisely. Also be realistic about how much you can do. Save energy for the things that matter most to you.

- Ask yourself: Do I need to do this? If the answer is “yes,” go ahead. But keep in mind, the answer can also be “no.”
- Decide which tasks can be done less often. Can you take turns with someone else?
- Learn which tasks you need help with. Can someone assist you with certain tasks?
Position Yourself

Set up your workspace so you can do more with less energy.

- Use work surfaces that are at a comfortable height.
- Sit down whenever you can, not just for lengthy tasks.
- Keep items you use often, such as medications, handy.
- Store items between shoulder and waist level. This way, you can limit climbing, bending, and reaching.
- Put items back in their set places. Ask other family members to do the same. This prevents lengthy searches.

Pace Yourself

To be most efficient, work at a relaxed, steady pace.

- Break tasks into small steps.
- Combine activities. For instance, use a single bowl to mix, bake, serve, and store in.
- Use a cart you can roll from room to room to hold all the things you need. This way, you don’t have to go back and forth. Some carts have seats so you can rest when you get tired.
- Use slow, smooth movements, especially when you’re using increased effort.

Remember to Breathe

Do you rush through your tasks? A lot of people do this hoping to avoid shortness of breath. Rushing actually uses more energy and makes shortness of breath worse. So take it slow and remember to breathe!

- Use pursed-lip breathing while you perform a task.
- Exhale when you use effort. For instance, breathe out as you lift a grocery bag. Once you’re holding the bag, breathe in.
- Don’t hold your breath. Instead, focus on your breathing.
- Inhale through your nose (normal breath). Exhale twice as long as you inhale.
- Remember, it’s okay to be short of breath. Don’t panic. Remember that you’re in control. Just pace yourself and do your pursed-lip breathing.
Moving Smarter

How you use your body can help you save energy. Move as slowly as you need to. As you move, don’t hold your breath. Instead, do pursed-lip breathing. You may want to check with your healthcare provider before doing these tasks. If you have trouble with any of the activities, your doctor may tell you to use a quick-relief inhaler before you are active.

Climbing Stairs

- Inhale before taking the first step. As you exhale, straighten your leg and raise your body to the next step. Keep your feet flat as you step up. Continue climbing until you finish exhaling. Then inhale before taking the next step.
- Use railings for support. Stop and rest if you need to.
- If you’re carrying oxygen, try using a portable unit with a shoulder or hip strap. Or put the oxygen unit in a backpack.

Lifting and Carrying

- Get close to the object you’re lifting. Bend at the hips and knees if you need to. Inhale and get a good grip. Then exhale as you lift, using your legs to raise both the object and your body.
- Carry the load close to your body. Hold it so that you can see where you’re going.

Sitting and Standing

- To sit, back up until the backs of your legs touch the chair edge. Inhale. Bend forward slightly from the hips (not the waist). Exhale as you use your leg muscles to lower your body onto the chair. Scoot back.
- To stand, scoot to the edge of the chair. Lean forward slightly so your nose is over your toes. Inhale. Then, while exhaling, push yourself up using your arms (against the arms of the chair or your thighs).
- Keep in mind it can be harder to get into and out of chairs that are very low, deep, or soft.
Pushing and Pulling

- When you push something, move your whole body along with the object. For instance, hold the handle of the vacuum cleaner with both hands. Then walk with it to vacuum.
- Sometimes pulling is easier than pushing. Try pulling an object such as an oxygen canister instead of pushing it.

Getting Out of Bed

- If you’re lying on your back, roll onto your side. Move your whole body as a unit. Don’t twist.
- Move to the side of the bed.
- As you exhale, press down with your arms to raise your body. Gently swing both legs to the floor.
- Inhale as you straighten your legs to stand. Then exhale and push off the bed with your hands.
- If you need to, hold on to something to steady yourself.

Getting into Bed

- Back up until the backs of your legs touch the edge of the bed.
- Inhale and bend forward slightly from the hips. Exhale as you lower your body into a sitting position on the bed.
- Inhale. Then exhale as you lower yourself onto your side. Use your arm for support. Move your body as a unit, allowing your feet to lift onto the bed.
- If you want to sleep on your back, roll onto your back without twisting.
Setting Up Your Bedroom

- If your bedroom is upstairs, think about moving it to the first floor. If this isn’t possible, set up your day so that after going downstairs you don’t have to go back up until bedtime.
- Adjust the bed height. Your feet should touch the floor when you sit on the edge of the mattress.
- Have a piece of sturdy furniture next to the bed. It should be the same height as the bed. If needed, you can use it for support as you get into and out of bed.
- Keep a lamp on the nightstand or over the bed. The switch should be easy to reach.
- Keep your inhaler by your bed for nighttime and early morning use (as needed).
- When making your bed, do one side first, and then the other.

Showering

- Have grab bars installed to help you get in and out of the shower safely.
- Get a handheld shower nozzle.
- Place a shelf within easy reach to hold soap, shampoo, and other bath items.
- Ask your doctor or pulmonary rehab team if you should use your quick-relief inhaler before taking a shower. If you’re on oxygen, use it when you shower. Set the flow rate prescribed for your activity level.
- Sit on a stable, waterproof shower seat when showering.
- Steam can make breathing harder. To reduce steam, use warm water instead of hot. Also run a fan or keep the window or door partly open.

Dressing

- Put clothes in drawers that are between waist and shoulder level.
- Adjust the height of closet racks so hangers are easy to reach.
- When dressing or undressing, make sure you’re sitting down. You may be shown how to use aids such as a reacher, sock-aid, and a long-handled shoehorn.
Moving from Room to Room

- Keep pathways and doorways clear. This includes removing throw rugs.
- Keep hallways and stairs well lit.
- Have sturdy pieces of furniture or securely attached handrails along the hallway for support, if needed.
- Place a chair in the hallway, on the way to the bathroom, for instance. Stop and rest if you need to.

Setting Up Your Kitchen

- Make sure the items you use most (such as a microwave or coffee maker) are easy to reach.
- Keep pots and pans where you can get to them without reaching or bending (such as on the stove).
- Keep jar openers and other aids handy.
- Sit on a stool when working at the counter.
- Use appliances such as a blender, electric can opener, and dishwasher to make cooking and cleaning easier.
- To move a pot or other heavy object, put it down on a potholder. Then pull the potholder across the counter.

Finding Solutions

Are there obstacles in your living space that you need help working around? Print out this PDF and use it to write down any problems you’ve noticed at home. Your pulmonary rehab team can help you resolve these.
Running Errands

The energy conservation skills you’re learning can be used for grocery shopping and other errands, too. Just remember to use what you’ve learned: Plan, Prioritize, Position, and Pace. Keep in mind that walking in the store counts as part of your daily exercise.

Shopping

• Pick a stable shopping cart. Lean on the cart to rest as you shop. If you use oxygen, put the unit in the cart.
• Shop with a buddy or get help from a store clerk. Have this person get items from top and bottom shelves.
• Ask that your bags be packed light. If you need help loading your car, don’t be afraid to ask.

Try This

Unable to shop? There are other ways to get the things you need. Check the phone book or the Internet for home delivery services. The suggestions below can help you get started. Your doctor or pulmonary rehab team may also have ideas.

• Contact Meals on Wheels to ask about having meals delivered to your home.
• Call your local grocery store and pharmacy and ask if they make deliveries.
• Buy clothes, books, and other items from mail-order catalogs or the Internet.
• Ask friends and family members if they can help with errands when you don’t feel like shopping.
• Find out if your health insurance offers a mail-order prescription program.
Chapter 4 Quiz

Congratulations!

You’ve just finished Chapter 4. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
There are many medications that can help with chronic lung disease. This chapter will help you understand the medications you take and how to use them correctly and safely. If your medication plan doesn’t work for you or gives you trouble, be sure to let your doctor or pulmonary rehab team know.

The Role of Medications

Most people with chronic lung disease take several medications. These are mainly used to help relieve symptoms, such as shortness of breath. Some may also help reduce exacerbations, or periods of worsened symptoms of your underlying lung condition. And certain others are used only in severe cases. Work with your doctor and pulmonary rehab team to learn more about the specific medications included in your plan.

Terms You May Hear

Some chronic lung disease medications may be used for “maintenance” or “quick relief.” This typically refers to how often the medications are taken.

- **Maintenance medications** are used daily to help keep airways open and control symptoms.
- **Quick-relief medications** relieve symptoms quickly when the airways are too restricted. They are used only when needed or as prescribed by your doctor. They are also called “rescue” or “fast-acting” medications.

Ask your doctor or pulmonary rehab team to explain which of your medications are for maintenance and which are for quick relief.
# Medications for Chronic Lung Disease

<table>
<thead>
<tr>
<th>Types of Medications</th>
<th>How They Work</th>
<th>Inhaled</th>
<th>Swallowed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bronchodilators</td>
<td>• Relax and open airways&lt;br&gt;• Help lessen shortness of breath&lt;br&gt;• Help prevent exercise-induced wheezing&lt;br&gt;• Help stop attacks</td>
<td></td>
<td>X</td>
</tr>
<tr>
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<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Long-acting beta-2 agonists (LABA)</td>
<td>• Relax and open airways&lt;br&gt;• Help lessen shortness of breath&lt;br&gt;• Take effect more slowly and work longer than short-acting beta-2 agonists</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Anticholinergics</td>
<td>• Relax and open airways&lt;br&gt;• Help lessen shortness of breath&lt;br&gt;• Take effect more slowly than short-acting beta-2 agonists</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Methylxanthines</td>
<td>• Stimulate the diaphragm and breathing&lt;br&gt;• May be useful if symptoms occur during sleep&lt;br&gt;• Are long-acting</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Corticosteroids</td>
<td>• Reduce inflammation and swelling in airways&lt;br&gt;• Reduce mucus production&lt;br&gt;• Decrease sensitivity of airways to irritants and allergens</td>
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</tr>
<tr>
<td>Selective phosphodiesterase-4 (PDE-4) inhibitor</td>
<td>• Reduce number of flare-ups or worsening symptoms (breathlessness, cough, excess mucus) due to bronchitis form of COPD</td>
<td></td>
<td>X</td>
</tr>
<tr>
<td>Combination medications</td>
<td>• Combine effects of different types of medication</td>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

This is not a complete list of medications and does not imply endorsement of any type or brand. Only your healthcare provider can prescribe these medications. Talk to your healthcare provider or pharmacist about the possible side effects and interactions of any medication you take.
If You Have Side Effects

Some chronic lung medications can cause side effects. Ask your healthcare provider and pharmacist what you should expect from your medications. Print out this list and take it with you on your next visit to your doctor or pharmacist. Ask about possible side effects for medications your may have prescribed.

### Examples of Medications

<table>
<thead>
<tr>
<th>Medication</th>
<th>Possible Side Effects and Special Precautions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Albuterol sulfate (ProAir, Proventil HFA, Ventolin HFA); levalbuterol HCl (Xopenex HFA); metaproterenol sulfate; terbutaline sulfate</td>
<td>Trembling, nervousness, insomnia, fast heartbeat, or increased blood pressure. Should be taken before other bronchodilators and inhaled corticosteroids.</td>
</tr>
<tr>
<td>Formoterol fumarate (Foradil); indacaterol maleate (Arcapta Neohaler); salmeterol xinafoate (Serevent)</td>
<td>Fast heartbeat, headache, nervousness, or trembling. Do not use for quick relief. Do not take more often than prescribed.</td>
</tr>
<tr>
<td>Ipratropium bromide (Atrovent HFA); tiotropium bromide (Spiriva)</td>
<td>Dry mouth, dizziness, drowsiness, headache, upset stomach, constipation, or nervousness.</td>
</tr>
<tr>
<td>Beclomethasone dipropionate (QVAR); budesonide (Pulmicort); flunisolide (Aerospan HFA); fluticasone propionate (Flovent HFA)</td>
<td>Very little enters bloodstream, so few side effects. Do not use for fast relief of shortness of breath. Must be used every day. Rinse mouth, gargle, and spit after use. Do not stop using without consulting your doctor. High doses must be tapered, not stopped abruptly.</td>
</tr>
<tr>
<td>Methylprednisolone (Medrol); prednisone (many brand names)</td>
<td>Enters bloodstream, so may cause insomnia, mood changes, skin bruising, weight gain, stomach problems, high blood pressure, glaucoma, cataracts, osteoporosis, or high blood sugar. Always take with food or milk. Do not stop using without consulting your doctor. High doses must be tapered, not stopped abruptly.</td>
</tr>
<tr>
<td>Roflumilast (Daliresp)</td>
<td>Diarrhea, nausea, headache, insomnia, back pain, reduced appetite, dizziness. Don’t take for sudden breathing problems (acute bronchospasm). Not to be taken by persons under 18.</td>
</tr>
<tr>
<td>Fluticasone propionate plus salmeterol xinafoate (Advair); budesonide plus formoterol fumarate (Symbicort)</td>
<td>Varies depending on medication. Talk to your healthcare provider.</td>
</tr>
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Using an Inhaler

Many lung medications are fine mists, sprays, or powders that must be breathed into the lungs. These medications are often taken with an inhaler. Make sure you know how to use the inhaler you’re given. A plastic holding tube called a **spacer** is used with some inhalers to direct the medication into your lungs. This way, you get more of the medication. To help prevent infection, clean your inhaler and spacer often. The pulmonary rehab team will show you how.

**Metered-Dose Inhalers (MDIs) with Spacers**

1. Remove the caps from the inhaler and spacer. Shake the inhaler well and attach the spacer. If the inhaler is being used for the first time or has not been used for a while, prime it as directed by its manufacturer.
2. Breathe out normally. Put the spacer between your teeth and close your lips tightly around it. Keep your chin up.
3. Spray 1 puff into the spacer by pressing down on the inhaler. Then slowly breathe in through your mouth as deeply as you can. This should take 3 to 5 seconds. (If you breathe in too quickly, you may hear a whistling sound in the spacer.)
4. Take the spacer out of your mouth. Hold your breath for a count of 10 (if possible). Then slowly breathe out. If a second dose is prescribed, wait at least 30 seconds before taking the next puff.

**MDIs Without Spacers**

Keep in mind that MDIs work best with spacers. But if you don’t have a spacer with you, follow these steps:

1. Shake the inhaler and remove the cap. Breathe out through your mouth.
2. Hold the inhaler 1 to 2 inches from your open mouth. (If instructed to do so, you may also put the inhaler mouthpiece in your mouth and close your lips tightly around it.) Keep your chin up.
3. Press down on the inhaler to spray 1 puff as you breathe in slowly and deeply through your mouth. Breathe in for about 5 seconds. Hold your breath for a count of 10. Then breathe out slowly. If a second dose is prescribed, wait at least 30 seconds before taking the next puff.
When to Replace Your MDI

Each inhaler contains only a certain amount of medication. Most MDIs come with a built-in puff counter to let you know how many puffs remain. Check the counter and refill your prescription before the old one is used up. That way, you’ll have a new inhaler ready. Be sure to read the package insert if you have questions about how to use the counter. Note that some MDIs appear to work even after all the medication is used up.

- If you have an inhaler without a counter, you will need to count how many puffs you take each day. Look at the label on your MDI to see how many puffs are in the canister. Then keep track of how many puffs you use. If you take a certain amount of puffs each day, divide that number into the total puffs in the inhaler. This will tell you how many days the inhaler will last. Mark on a calendar the date the inhaler will run out.

- If you use your inhaler only once in a while, you will need to keep track of the number of puffs you take.

Dry-Powder Inhalers (DPIs)

1 Load the prescribed dose of medication by following the instructions that come with the inhaler.
2 Breathe out normally, holding the inhaler away from your mouth. Hold your chin up.
3 Put the mouthpiece between your lips. Breathe in quickly and deeply through the inhaler—not through your nose. You may not feel or taste the medication as you breathe in. This is normal.
4 Take the mouthpiece out of your mouth. Hold your breath for a count of 10.
5 Breathe out slowly—but do not breathe out through the inhaler. Moisture from your breath can make the powder stick inside the inhaler. Also, be sure to close the inhaler and store it in a dry place.
Using a Nebulizer

Another way some lung medications are taken is with a device called a **nebulizer**. If your doctor prescribes this, you’ll be referred to a medical equipment company. They’ll set up the nebulizer and show you how to use and clean it. Your pulmonary rehab team can also help you learn to use and care for the nebulizer.

How Nebulizers Work

A nebulizer changes liquid medication into a fine mist. This is delivered into the lungs through a plastic mouthpiece or mask. Nebulized medication is taken for several minutes, instead of the short burst of medication you get from an inhaler. There are many types of nebulizers available, including portable ones. Make sure to read and follow the instructions that come with the nebulizer. Your doctor, pulmonary rehab team, or medical equipment company can answer any questions.

Cleaning Your Nebulizer

It’s important to clean your nebulizer equipment. If you don’t, germs can collect in the nebulizer and you could get an infection. Follow the cleaning instructions that come with your nebulizer.

Nebulized Medications

You may take some medications with a nebulizer and others with an inhaler. If so, make sure to write down the names of the medications that are prescribed for you in your medication plan. Also, include when and why those medications should be taken. Your doctor or pulmonary rehab team can help.
Your Medication Plan

For your health, taking your medications on time and as directed is essential. If you don’t understand something about your medication plan or have concerns, talk with your doctor, pulmonary rehab team, or pharmacist. Don’t let confusion, cost, or fear keep you from better health.

Make Your Medication Plan Work for You

To get the most benefit from your medications, be sure to do the following:

• Report any side effects to your doctor. He or she may be able to adjust the dosage or change the medication to one that may work better for you.

• Never stop taking your medications without talking to your doctor first.

• Understand the risks to your health if you don’t take your medications.

• Talk with your doctor or pharmacist if you feel you can’t afford your medications. Don’t take a lower dosage than prescribed to save money.

Many “quick-relief” medications are small and easy to carry with you in case of an emergency.
Tips for Taking Medications

Remembering to take medications can be hard, especially when you take a lot of them. These tips can help:

- Develop a routine. For example, try taking your medication at the same time each day. Use reminders. This can include alerts on your watch or cellphone.
- Refill prescriptions on time so they don’t run out. Some suppliers, such as mail-order pharmacies, may take longer to fill prescriptions.
- Ask for help if you have questions or problems taking your medications. Get assistance from a family member or friend. Or, call your doctor, pulmonary rehab team, or pharmacist.

Be Smart About Alternative Treatments

You may have heard about herbal supplements or over-the-counter products that are supposed to help with lung conditions. Keep in mind that “natural” doesn’t mean safe. Herbs, extracts, or supplements can interact with medications you’re taking. And some over-the-counter products may cause organ damage. If you want to try an alternative treatment, talk to your doctor or pulmonary rehab team first.
Chapter 5 Quiz

Congratulations!

You've just finished Chapter 5. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
Regaining Control

Sometimes you may feel like you don’t have any control over your life and your health. The skills you learn in pulmonary rehab will help you regain some control. These suggestions may also help:

- Keep doing the things you enjoy. When you’re planning your day, make sure to include some activities that are just for fun.
- Stay involved with friends and family. This may mean inviting people to your house more often. Talk about your feelings with people close to you.
- Learn as much as you can about your lung disease. The more you know, the more control you’ll have.
- You might feel your family and friends don’t understand the changes you’re facing. Share what you learn with the people in your life. Bring loved ones with you to the doctor and to pulmonary rehab. Let them know how they can help with treatment.
- Take an active role in your care. Bring up any questions or concerns about your treatment plan with your doctor or pulmonary rehab team. If treatment isn’t meeting your needs, other options may be available.
Rebuilding Intimacy

An intimate relationship is built on sharing feelings. The stress and worry of health issues can upset this closeness. It can even cause sexual problems that weren’t there before. Talking honestly with your partner is the first step toward rebuilding intimacy. It may be hard to talk about your feelings, but keeping them to yourself may make you and your partner feel alone.

When You Talk

• Choose a time when you are both relaxed.
• Pick a place where you feel at ease and won’t be interrupted.
• Listen to each other. Do your best to listen until your partner is done talking.
• Acknowledge each other’s concerns, and really try to understand.
• Support each other. Be patient and try not to criticize.

Resuming Sexual Activity

• Sex may feel better if you wait until you’re rested. Use positions that require less energy, such as lying on your side or your back.
• Prepare for sex as you would for exercise. Use your inhaler beforehand if one has been prescribed. Clear your lungs of mucus, if needed. If you use oxygen, set the flow rate for activity.
• It’s okay if you don’t feel like having sex. You can show your love in other ways. Try hugging, giving a backrub, or just telling your partner how much you care.
Managing Stress

Stress can be caused by a number of things in your life. Learning to follow your treatment plan, dealing with your daily routine, and trying to catch your breath can all be sources of stress. When you’re under stress, the airways in your lungs narrow. This makes breathing harder. You can’t remove all stress from your life. But you can reduce it. Doing so will help you breathe easier.

Take Time to Relax

Your body needs relaxation to reduce stress and help prevent the dyspnea cycle. Try to plan for 20 minutes of relaxation every day. Sit or lie comfortably. Listen to soft music or just sit in silence. Practice relaxation techniques such as the one below. Consider taking a yoga or meditation class. Also remember that pursed-lip and diaphragmatic breathing can be relaxing.

Visualization

- Find a quiet room. Sit in a comfortable chair or lie on your back.
- Picture yourself feeling warm and relaxed. Choose a setting that appeals to you and use your senses to fill in the details. If you imagine a tropical beach, listen to the waves crashing on the shore. Feel the sun on your face. Smell the salt air. Dig your toes in the sand.
- Try to hold this image in your mind. If other thoughts enter your mind, relax and refocus. Let the invading thoughts fall away. Concentrate on your breathing.

Remember the 4 A’s

When dealing with stressors (the things that cause you stress), keep these 4 A’s in mind:

- **Avoid** a stressor when you can. For instance, if someone is smoking when you’re trying to quit, leave the room.
- **Alter** how you deal with a stressor. If you’re stressed because the phone keeps ringing, turn the ringer off. You can return the calls later.
- **Accept** a stressor you can’t change, such as having to take daily medication. Remind yourself that your feelings of frustration or grief are normal.
- **Adapt** to some stressors by changing how you feel about them. Instead of focusing on how hard you assume a new exercise program will be, think about the benefits.
Dealing with Depression and Anxiety

Having a chronic health problem can be hard to cope with. You may feel sad or frustrated that you can’t do as much as you used to. You may be scared of becoming short of breath, or even that you’ll suffocate. These feelings are not uncommon. But you should know that you don’t have to feel this way. Talk with your doctor or pulmonary rehab team about your feelings. Be sure to get help if you have symptoms of depression or anxiety listed below.

Common Signs of Depression

- Feeling unhappy, down, or sad most days
- Losing interest in hobbies or activities you once enjoyed
- Feeling hopeless about the future
- Having trouble sleeping, or sleeping more than usual
- Not eating or eating too much
- Feeling tired, weak, or low in energy
- Having trouble concentrating, remembering, or making decisions
- Withdrawing from family and friends

Common Signs of Anxiety

- Physical symptoms such as: racing heartbeat, trouble breathing, frequent headaches, stomach problems, sweating or shakiness, muscle tension, or startling easily
- Having trouble sleeping
- Constant fearing for personal safety or safety of friends and family
- Having problems concentrating or relaxing
- Feeling irritable and on edge all the time

What You Can Do

You may believe that nothing can help you. Or you might fear what others may think. But know that depression and anxiety can be treated. Just sharing your feelings may help you feel better. Medications and other treatments, such as counseling, are also available, if needed. When depression and anxiety are under control, your overall health may improve. You may also have more energy to take care of yourself and follow your treatment plan.
Planning for the Future

Having chronic lung disease is likely to mean adjustments in your life. Think about your needs now. Also think about how your needs might change as your condition changes. Discuss your thoughts about these issues with the people in your life who can help you plan and take action.

Issues to Think About

- **Finances.** Having a condition like chronic lung disease can bring unexpected costs. Talk to a financial planner about how to make decisions about your money. Find a financial planner through your bank, senior and social services, or online.

- **Changes in your energy.** What you can do, how you feel, and even your moods may change from day to day. Talk to the people around you about your needs. Let them know how they can help you. For example, you might need assistance with things like housecleaning, rides to appointments, or running errands. If you need to hire help, talk to a social worker about low-cost services.

- **Your living situation.** The care you need may change with time. Your condition may also affect your ability to live where you like. Ask yourself: Does your current living situation meet your needs? If your condition changes, will challenges arise? Consider alternative housing arrangements. These may include single-story housing, in-home care, or assisted living. A social worker or counselor can answer questions and help you learn more about your options.

Managing the Cost of Healthcare

Do you know what your health insurance covers? Do you need help with the cost of your plan or medications? Below are some tips for getting the most out of your healthcare:

- Find out what types of treatment your insurance plan covers. If you are prescribed something that isn’t covered, discuss it with your healthcare provider.

- If you don’t have a plan through your employer, check with your state health department about healthcare exchanges. You may qualify for discounts or aid.

- If you need help with medication costs, talk with your doctor, pharmacist, or pulmonary rehab team. There are resources that may help.

- Contact the Social Security Administration to see if you qualify for disability benefits and Medicare (800-772-1213).
Chapter 6 Quiz

Congratulations!
You’ve just finished Chapter 6. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
Wash Your Hands Often

Most germs spread through touch. Try to keep your hands away from your mouth and face. To prevent germs from spreading, wash your hands often.

- Use warm water and plenty of soap. Work up a good lather. Clean your whole hand, under your nails, between your fingers, and up your wrists. Wash for at least 20 seconds. Don’t just wipe—rub well. Then rinse. Let the water run off your fingertips, not up your wrists.
- Dry your hands well with clean paper towels. When in a public restroom, use paper towels to turn off the faucet and open the bathroom door so you don’t get germs on your hands again. Throw the paper towels away when you’re done.

Use Hand Sanitizer Between Washings

When you’re not near a sink, clean your hands with an alcohol-based hand sanitizer. This is especially good to do after touching things that a lot of other people have touched, such as supermarket carts or door handles. Then wash your hands the first chance you get. In general, it’s a good idea to always keep a small bottle of hand sanitizer with you.

Try This

You’ve heard of singing in the shower—how about singing at the sink? Sing or hum “Twinkle, Twinkle, Little Star” while you wash your hands. Don’t rinse until the song is over. This will help you lather long enough to wash away germs.
Care for Your Teeth and Gums

Germs in the mouth can lead to infections in other parts of the body. To protect yourself:

- Brush your teeth at least twice a day, once in the morning and once before you go to bed. Brush for at least 2 minutes each time. Floss at least once a day.
- See the dentist at least every 6 months, even if you have dentures.
- Ask your dentist if you should use mouthwash, a tongue scraper, or other products.
- Get a new toothbrush every 2 to 3 months. Also replace your toothbrush after getting over an infection.

Get Vaccinated

Your doctor can advise you on which vaccines you need and why. The following vaccines are usually recommended:

- Get a flu shot every year. The flu vaccine can run out, so make sure to get your shot early in the season.
- Get a pneumonia vaccination. If you’ve already received this, ask your doctor if you need another one.

Take Care of Sinus Problems

Drainage from the sinuses goes through the nasal cavity and into the lungs. This means germs in the sinuses have direct access to the throat and lungs. To reduce your risk:

- Talk to your doctor about using an over-the-counter saline spray if you have sinus drainage. Follow the directions on the package.
- Take medications, such as nasal steroid sprays or decongestants, if advised to by your doctor.

Stay Aware of Germs

It’s impossible to avoid all germs. But you can reduce your exposure to them. Try to stay away from crowds in the winter when more people are sick. Avoid shaking hands with or spending time near people who may have respiratory infections, such as colds or the flu. Keep in mind that children often bring germs home from school or daycare. Remember to wash your hands. Also, keep your inhaler and spacer clean.
Warning Signs to Watch For

These warning signs are your body’s way of saying you may have an infection:

- Increased shortness of breath, wheezing, or coughing
- Mucus that has increased, has changed color, is bloody, or has an odor
- Feeling more tired than usual
- Chest tightness that does not go away with your normal medications
- Fever, chills, or night sweats
- Sore throat
- Muscle aches and pains or headaches
- A change in peak flow numbers (if peak flow monitoring is part of your treatment plan)

An Infection Action Plan

Talk to your doctor about what you should do if you notice warning signs of an infection. Your action plan may involve taking different medications than usual, monitoring your symptoms, and seeing your healthcare provider. Keep a record of your instructions so you’ll know what to do.
Congratulations!

You’ve just finished Chapter 7. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 8
Sleep Problems
If You Have Sleep Apnea

To help you breathe better during sleep, your doctor may prescribe a device. This may provide CPAP (continuous positive airway pressure) or BiPAP (bilevel positive airway pressure). The device sends a gentle flow of air through a nasal mask while you sleep. This air goes through your nose and into your throat, keeping airways open.

Tips for Using CPAP and BiPAP

- If your mask doesn’t fit or feel right, talk to your doctor or the vendor about adjusting it or trying a new one.
- These devices work best if your nose is clear. If you have allergies or other problems that block your nose, get those treated.
- If the device doesn’t feel good or work well at first, don’t stop using it. Ask your doctor or someone from your medical equipment company for ways to help make it work for you.
Congratulations!

You’ve just finished Chapter 8. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 9

Nutrition
If You’re Having Trouble Eating

The stomach sits right under the diaphragm. A full stomach makes it harder for the diaphragm to move down. This can make breathing more difficult. Here are some tips that may help:

- **Eat smaller meals throughout the day.** This way, your stomach doesn’t get as full and your lungs have more room to expand.
- **Chew slowly with your mouth closed.** This helps you avoid swallowing air.
- **Try to avoid or limit foods that cause gas.** Gas makes the stomach swell and press on the diaphragm. These foods can include onions and cabbage. Not all foods have the same effects on all people. Keep track of the ones that cause problems for you.

What You Should Eat

Try to maintain a balanced diet that includes a variety of these foods:

- **Protein** helps build muscle mass. It is found in meat, poultry, fish, and soy.
- **Dairy products** help keep bones and teeth strong. Dairy products are also high in protein. They include milk, cheese, and yogurt.
- **Fruits and vegetables** give you the vitamins you need to stay healthy.
- **Breads and starches** (carbs) help you sustain energy. Carbs that are also high in fiber, such as whole-grain breads, may have longer-lasting effects than other carbs.
- **Fluids** keep you hydrated. Drinking fluids may also thin mucus. It’s good to drink 6 to 8 glasses of water a day (unless told otherwise by your doctor).

Vitamins and Supplements

If you’re not getting enough vitamins and nutrients, you may be told to take them in pill form. Some supplement drinks can also help you get the nutrients you need without getting too full. Make sure to talk to your doctor or a member of the pulmonary rehab team before trying any over-the-counter vitamins or supplements.
If You Have Acid Reflux

Many people with chronic lung disease also have problems with acid reflux or GERD (gastroesophageal reflux disease). This can cause symptoms such as coughing, heartburn, and upset stomach. If you have GERD, here are some things you can do:

- Maintain a healthy weight. If you are overweight, talk with your doctor about a weight-loss plan.
- Limit foods that trigger your symptoms. For many people, this often includes spicy foods, caffeinated drinks, and alcohol.
- Avoid lying flat just after eating. At night, use pillows or a foam wedge to prop yourself up. Or, have the head end of the bed frame placed on blocks that are at least 6 inches high.
- Ask your doctor about medications that may help.

Why Your Weight Matters

Being underweight can decrease energy. This makes it harder to be active and makes you more prone to infection. Being overweight can increase shortness of breath. It may also increase the risk for certain breathing-related disorders, such as sleep apnea. So you should try to stay at a healthy weight. Weighing yourself regularly helps you do this.

Tips for Weighing Yourself

Work with your doctor or a dietitian to establish your goal weight. Then weigh yourself as often as instructed by your doctor or pulmonary rehab team. This may be once a day, once a week, or another time frame.

- Each time you weigh yourself, do so at the same time of morning, after using the bathroom and before eating. Wear the same clothes or no clothes each time.
- Write your weight on a piece of paper that’s kept near the scale. This will help you see any changes in your weight over time.
- Call your doctor if you notice any unusual weight loss or weight gain.
Chapter 9 Quiz

Congratulations!
You’ve just finished Chapter 9. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 10
Airway Clearance
CHAPTER 10: Airway Clearance

Techniques for Airway Clearance

Airway clearance techniques may be prescribed to help move mucus up and out of the airways. Clearing the airways helps relieve shortness of breath and coughing. It also helps keep the lungs clean, which is especially important if you have a respiratory infection. For best results, use your quick-relief inhaler, if one has been prescribed, before doing these techniques.

Coughing Techniques

How these are done: You cough in special ways that help move mucus up the airways. A common technique is shown below.

The “Huff” Technique

This coughing technique can be done by itself. It should also be done along with the techniques on the next page, if those are prescribed.

1. Sit on a chair with both feet on the floor. Have a box of tissues handy. Take a slow, deep breath through your nose. Hold the breath for a moment before moving on to step 2.

2. To exhale, open your mouth and make a “huff” sound in your throat. (This is the same way you might breathe on a pair of glasses when cleaning them.) Huff 2 to 3 times as you exhale. Relax for a few seconds. Then repeat the steps as needed.
Positive Expiratory Pressure (PEP) Therapy

How it’s done: You blow into a handheld device. Doing so changes pressures inside the lungs and loosens mucus. Some devices have different settings. Your doctor will tell you which setting to use.

Wearing a Vibrating Vest

How it’s done: You wear a vest that vibrates (oscillates) the chest and airways to loosen mucus. Many types of vests are available.

Postural Drainage

How it’s done: You lie in certain positions to drain mucus from the lungs with gravity. Take slow, deep diaphragmatic breaths while in these positions. When you need to cough, use the “huff” cough.
Chapter 10 Quiz

Congratulations!

You’ve just finished Chapter 10. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 11

Oxygen Therapy
CHAPTER 11: Oxygen Therapy

Using Oxygen

If test results show there’s too little oxygen in your blood, supplemental oxygen may be prescribed. This is inhaled through a nasal cannula, a lightweight tube with two hollow prongs that fit into the nose, or other oxygen devices. Talk to your doctor or respiratory therapist about safely using, storing, and transporting oxygen.

Compressed Oxygen

**What it is:** Compressed oxygen comes in a tank that stores oxygen as gas. A flow meter and a regulator are attached to the tank to adjust the oxygen flow. The tank holds a specific amount of oxygen that is inhaled by the user until it runs out. Medical oxygen tanks are available in a variety of sizes, from large, pre-filled tanks that can be delivered to your home, to tanks that are small enough to carry around. The compressed oxygen system is generally prescribed when oxygen is not needed all the time, such as only when walking or doing physical activity.

An Oxygen Concentrator

**What it is:** The oxygen concentrator is an electric oxygen system that is about the size of a large suitcase. It can be plugged into an outlet or battery powered. It takes the oxygen from the air in the room and separates it from other gases found in air. Several types of concentrators are now available with newer portable technologies. When in use, the concentrator should be placed in an open area. Never place it in a closet or small space.

Liquid Oxygen

**What it is:** At very cold temperatures, oxygen changes from gas to liquid. When the liquid is warmed, it turns the oxygen back into gas so that you can breathe it. A large liquid oxygen system can be placed in the home. It also may include a small, portable canister (weighing from 3 to 15 lbs.) that can be filled for trips outside the home. Even when not in use, the air will evaporate over time. Always check your portable canister before use.
Oxygen Safety

Oxygen makes fire burn hotter and faster. So, it’s important to reduce chances of fire when you’re using oxygen. Follow the safety guidelines below.

**DO’s**

- **Do** keep the oxygen unit away from anything that could start a fire. This includes matches, lit candles, cigarettes, gas burners, fireplaces, or other sources of flame.

- **Do** keep the oxygen unit at least 5 feet away from sources of heat such as space heaters, furnaces, and radiators.

- **Do** turn off the oxygen unit completely when it’s not in use.

- **Do** have available “backup” tanks or portable units that are battery powered in case of an electrical power outage.

- **Do** have a working smoke detector and fire extinguisher in your home.

- **Do** ask the medical equipment company for additional instructions you may need to follow for safe usage.

**DON’Ts**

- **Don’t** smoke, and don’t allow others to smoke in your home.

- **Don’t** use vapor rubs, petroleum jelly, or oil-based hand lotion. These are flammable. Use water-based products instead.

- **Don’t** oil the oxygen unit. And don’t use it with oily or greasy hands.

- **Don’t** use aerosol sprays such as air fresheners or hairspray near the oxygen unit. Aerosols are very flammable.

- **Don’t** use oxygen while cooking with gas. Ask your medical equipment company about other types of cooking.

- **Don’t** place a liquid oxygen canister on its side. The liquid inside the canister can evaporate.

**Your Oxygen Prescription**

Oxygen is a medication. Tests can be done to assess whether oxygen treatment may be helpful for you. If you and your doctor decide oxygen is needed, you will get a prescription. The prescription will state how much oxygen you are to use for each and how often. Don’t change the amount unless you’re told to.
Congratulations!

You’ve just finished Chapter 11. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 12: Travel

Traveling with Chronic Lung Disease

Chronic lung disease shouldn’t stop you from traveling, visiting family and friends, and enjoying yourself—even if you use oxygen. You just need to be prepared. Changes in altitude and climate can affect breathing. This may require changes to your treatment, so talk to your doctor and pulmonary rehab team about your plans. While traveling, remember to keep exercising and using the skills you’ve learned in pulmonary rehab.

My Travel Checklist

Before Traveling

• **Fill your prescriptions.** Bring enough medication for the entire trip.

• **Get copies of your prescriptions.** Ask your doctor if you might need prescriptions for any other medications while traveling.

• **Bring a list of your medications.** Ask your pharmacist. You can also photocopy the one on page 38 after filling it out.

• **Ask your doctor what to do in case of infection.** Refer to your action plan on page 46. Your doctor may prescribe emergency medications just in case.

• **Call your insurance company.** Make sure you’ll have coverage where you’re going.

• **Get a portable nebulizer** (if needed). Ask your medical equipment company or pulmonary rehab team how to care for the device while traveling.

While Traveling

• **Wear a medical ID bracelet.** This should list your medical conditions and any medications you’re allergic to.

• **Wash your hands or use hand sanitizer often.** This helps kill germs and prevent infection.

• **Keep your prescriptions and medications in your carry-on bags.** This way, you’ll have them if you get separated from your checked luggage.

• **Use your quick-relief inhaler** before you get up to move around (if one has been prescribed). For example, use it before getting off the plane.

• **Stretch your arms and legs** if you’re sitting for a long time. This helps keep your blood moving. Try using your ankles and feet to spell out each letter of the alphabet.
Traveling with Oxygen

Traveling with oxygen takes a little extra planning. Contact your doctor’s office for a copy of your oxygen prescription and any other paperwork you need. Call your medical equipment company if you need oxygen delivered.

By Car
- DO NOT smoke or let anyone else smoke in the car.
- Open the windows a crack so air can circulate.
- Place a liquid oxygen unit upright on the floor or on the seat beside you. Secure it as well as you can. (Try using the seat belt.)
- Put extra oxygen units behind the seat. Don’t put them in the trunk.

By Plane
- Call the airline well in advance. Certain airlines may allow you to bring an approved concentrator. For a fee, some airlines may supply you with oxygen for use during flight.
- Arrange for oxygen to be delivered to your destination and to any layovers. Airlines supply oxygen only while you’re in the plane—not in the airport.

By Bus or Train
- Call the carrier in advance and tell them you’re traveling with oxygen.
- You can likely take your own oxygen on board. You may need to show a copy of your prescription first.

By Ship
- Call the cruise line ahead of time. Tell them you’ll be traveling with oxygen.
- Be prepared to provide a letter from your doctor, a copy of your oxygen prescription, and any other paperwork that’s requested.
- Arrange for oxygen units to be delivered to the cruise ship.

Planning a Trip

Technology has made it possible to quickly find information on just about any subject. Searching the Internet and browsing the web have become a part of everyday life. Most airlines, bus lines, and cruise lines have websites that include oxygen guidelines. For more information, enter (type) “travel with oxygen” into a search engine. If you find sites you like, add them to your browser’s “favorites” or “bookmark” menu so they’re easy to find. Ask a friend or family member to get you started if you need help. If you don’t have the Internet at home, many public libraries have free Internet access.
Chapter 12 Quiz

Congratulations!

You’ve just finished Chapter 12. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
Talk to Your Doctor

As you prepare to quit, see your doctor. Ask about medications or other products you may use to help you quit. These can include oral medications or nicotine replacement products such as a patch, gum, or spray. Your doctor may also know of local support groups, smoking-cessation classes, or other resources that may help.

My Reasons to Quit

It’s easier to quit when you keep in mind all your reasons for quitting. Check off the statements that apply to you. Read the list every day, and add to it if you can. This can help you decide to quit and stay quit for good.

- I’ll breathe better.
- I’ll be less at risk of lung cancer, heart attack, and stroke.
- I’ll save money.
- My lung disease will progress more slowly.
- I’ll have fresher breath.
- My clothes, car, and house will smell better.
- My family and friends won’t be at risk from secondhand smoke.
- Over time, I’ll have less mucus, shortness of breath, and wheezing.
Track Your Triggers

Do certain emotions, like frustration, trigger your urge to smoke? How about certain people or places? Knowing the situations that make you want to smoke can help you avoid them in the future. For one day, write down each time you smoke or have the urge to smoke. Record the time of day and what you were doing just before you had the urge. Do you see any patterns? Think about ways you can avoid or deal with these triggers.

Here are some examples of common triggers. Keeping a list like this will show you what makes you want to smoke.

<table>
<thead>
<tr>
<th>Time</th>
<th>What I Was Doing</th>
</tr>
</thead>
<tbody>
<tr>
<td>8:30 a.m.</td>
<td>Drinking morning coffee</td>
</tr>
<tr>
<td>11:00 a.m.</td>
<td>Driving</td>
</tr>
<tr>
<td>2:00 p.m.</td>
<td>Watching television</td>
</tr>
<tr>
<td>7:30 p.m.</td>
<td>Just finished dinner</td>
</tr>
</tbody>
</table>

Have a “Quit Plan”

Quitting takes patience and a plan. You’ll boost your chances of success by deciding on your “quit plan” ahead of time. Plan when you’ll quit, how you’ll deal with urges to smoke, and who you’ll ask to help support you. Your doctor and pulmonary rehab team can work with you to develop this plan. Even if you’ve already quit, it’s easy to slip back into smoking. Have a plan to help you stay off cigarettes for good.

My Quit Contract

You may find it easier to keep your goal in mind by making a contract with yourself. When you’re ready to stop smoking, a “quit contract” can be helpful. Signing a contract can make you feel a stronger commitment to quitting. Ask a friend or family member to witness your signing. Be sure to ask someone who believes you can quit. You can print out this sample contract today and put smoking behind you for good.
Working Through Withdrawal

Don’t be surprised if you cough more and have more mucus when you first quit smoking. This happens because the lungs are cleaning themselves. You’ll also likely go through a short period of withdrawal as your body adjusts to not having cigarettes. This will pass. Talk to your pulmonary rehab group about what you’re going through. Chances are they know exactly how you feel.

Managing Symptoms of Withdrawal

When you quit smoking, the nicotine level in your body drops. This can cause symptoms such as mood swings, lower energy, and trouble thinking clearly. Don’t worry. These symptoms will go away. To help you cope, try the following:

- Use quit-smoking products such as nicotine replacement or medications as directed by your doctor.
- Stay active as a way to distract yourself when you feel the urge to smoke. Take a walk around the block. Garden for a few minutes. Or play a game with your kids or grandkids.
- Keep your mouth busy until the urge to smoke passes. Chew sugarless gum. Munch on healthy snacks. Or drink a glass of water.

Learn from Slip-Ups

What if you slip up and have a cigarette? This doesn’t mean you’ve failed. Look at it as a chance to learn. What were you doing when you smoked? Were you with a smoker? Were you lonely? If you find the reason for your slip, you can make a plan for how to deal with it. Then get right back on track. If you tried to quit before and didn’t succeed, don’t doubt yourself this time. Use what you’ve learned to stay on track. And never give up trying to quit, no matter what!

Get Lots of Support

Support from family, friends, and members of your pulmonary rehab group can help you feel positive and stay quit. Here are some things to try:

- Ask a friend if you can call and talk when you get an urge.
- Ask family members not to keep cigarettes or ashtrays in the house.
- Ask a friend or family member who smokes to quit with you. Also find out if others in your pulmonary rehab group are trying to quit. You can support each other.
Congratulations!

You’ve just finished Chapter 13. Now click on the question mark above to find out how much you learned.

If you have problems viewing this quiz, try turning off the pop-up blocker in your web browser.
CHAPTER 14: Appendix

Additional Tools and Information

This chapter provides you with more tools and information to understand chronic lung disease and take an active role in your own healthcare. Remember, never be afraid to talk with your doctor or pulmonary rehab team. They can answer any questions you have and refer you to the right resources, if needed.

Notes for Family and Friends

Being close to someone with chronic lung disease may mean some changes in your life. As your loved one learns how to manage his or her condition, you may be asked to be a helper, caregiver, or source of support. Doing the following may help:

- Learn as much as you can about your loved one’s condition. This will help you know what to expect. It will also show you ways that you may help.
- Talk to your loved one’s doctor and pulmonary rehab team. Ask any questions you have. Make sure you understand your role in treatment.
- Join your loved one at pulmonary rehab. Also, spend time with your loved one. Take time to talk and do things you both enjoy.
- Take care of yourself, too. There are support groups and other resources for caregivers.
- Contact the Well Spouse Association (for family members and other caregivers) 800-838-0879 | www.wellspouse.org

Resources for Chronic Lung Disease

These resources can help you learn more about chronic lung disease, pulmonary rehab, and what you can do to breathe better. They can also help you find support groups in your area.

American Association of Cardiovascular and Pulmonary Rehabilitation
www.aacvpr.org

American Lung Association
800-586-4872 | lung.org

Asthma and Allergy Foundation of America
800-727-8462 | www.aafa.org

Coalition for Pulmonary Fibrosis
888-222-8541 | www.coalitionforpf.org

Pulmonary Education and Research Foundation (PERF)
www.perf2ndwind.org

Smokefree.gov
800-784-8669 | smokefree.gov
Writing Down Your Wishes

Think about what type of treatment you’d want if you couldn’t speak for yourself. Then, write down your wishes. There are two ways to do this (see below).

- A **durable power of attorney** lets you name another person to decide on treatment for you. This person is called an **agent**. Your agent can speak for you only if you can’t state your wishes yourself.
- A **living will** lets you state which treatments you would or would not want near the end of your life. It often applies only if you won’t live without medical treatment. A living will takes effect only when you are no longer able to express your wishes.

Choosing Your Agent

Your agent could be a family member, close friend, or religious leader or advisor. (In most states, it can’t be your healthcare provider.) Name one agent, and one or two alternates. They will serve as backup if your first agent can’t be reached. Your agent should be someone at least 18 years old whom you trust to follow your treatment choices.
Weighing Your Treatment Options

What treatments would you want if your life were about to end? Your wishes might change depending on your overall health and chance of recovery. Some treatment options are described below. These treatments can usually be chosen or refused at any time. (This may vary, depending on state laws.) Your doctor or pulmonary rehab team can tell you more about these treatments. Make sure your agent knows how you feel about each option.

- **CPR (cardiopulmonary resuscitation)** tries to restart your heart and lungs if they stop working.
- **A respirator** keeps you breathing. Air is pumped into your lungs through a tube that’s put in your windpipe.
- **Tube feeding** provides you with food and fluids through a tube or IV. It is given if you can’t chew or swallow.
- **Hospice care** means comfort care. Hospice nursing staff may help with bathing or provide food and fluids by mouth. This care is given during the last stages of an illness.
- **Pain medication** can be given to help keep you comfortable.

What’s Most Important to You?

What makes you happy to be alive? Think about what you value. This is the first step toward deciding what medical care you might want if your health were to worsen. Read each statement below. What best describes your feelings? What else would you add to the list?

<table>
<thead>
<tr>
<th>I want to:</th>
<th>Importance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Care for myself without being a burden to others.</td>
<td>Very</td>
</tr>
<tr>
<td>Make decisions for myself.</td>
<td></td>
</tr>
<tr>
<td>Recognize family and friends.</td>
<td></td>
</tr>
<tr>
<td>Talk to and understand others.</td>
<td></td>
</tr>
<tr>
<td>Stay in my home as long as I live.</td>
<td></td>
</tr>
<tr>
<td>Live without a lot of pain.</td>
<td></td>
</tr>
<tr>
<td>Live without needing machines or medical devices to keep me alive.</td>
<td></td>
</tr>
<tr>
<td>Live as long as I can.</td>
<td></td>
</tr>
<tr>
<td>Die peacefully and quickly if I’m very sick and have no chance of getting better.</td>
<td></td>
</tr>
</tbody>
</table>
Glossary

These pages contain common terms you may hear as part of your chronic lung disease treatment.

**Allergen** A substance that can cause inflammation in the lungs. Some common allergens include pollen, animal dander, dust mites, and mold. Not everyone is bothered by allergens. You should try to avoid any that cause you problems. Your doctor will help you learn which ones these are.

**Alveoli** Clusters of balloon-like air sacs at the ends of the airways in the lungs.

**Asthma** A condition in which the lungs are very sensitive. Airways in the lungs may be chronically inflamed and get very small when irritated. This makes breathing harder.

**Asthma flare-up** Also called an “asthma attack.” When irritated, the airways swell and make extra mucus. Small muscles around the airways tighten. You may wheeze and have trouble breathing. Quick-relief medications should be used when this happens.

**Bronchial tubes** Branching airways in the lungs. The smallest of these are called bronchioles.

**Bronchiectasis** A condition in which the small airways become inflamed and enlarged and the cilia are destroyed. Mucus builds up and the lungs are more likely to become infected.

**Bronchospasm** When the muscle surrounding the airways tighten. This occurs when you have asthma.

**Capillaries** Blood vessels surrounding the air sacs. Oxygen and carbon dioxide gases pass through capillaries on the way into and out of the lungs.

**Carbon dioxide (CO₂)** A waste gas that must be exhaled out of the body. When you can’t exhale well, carbon dioxide may build up in the body and cause damage.

**Chronic bronchitis** A long-term condition in which the airways produce more mucus than they should. This keeps air from flowing normally.

**Cilia** Tiny hairs that line the airways. These sweep mucus up and out of the lungs. Cigarette smoke can damage and paralyze cilia.

**COPD (Chronic obstructive pulmonary disease)** A category of diseases in which obstructions (blockages) in the lungs make breathing harder. COPD includes chronic bronchitis, emphysema, bronchiectasis, and chronic asthma.

**Cystic fibrosis** An inherited condition in which thick mucus clogs the lungs.

**Dyspnea** The medical word for shortness of breath, or feeling breathless.
**Emphysema** A condition in which the air sacs (alveoli) are damaged and become loose and baggy. Some are destroyed. Air can’t travel into and out of the lungs as easily.

**Exacerbation** A period of worsened symptoms, usually due to a respiratory infection.

**Gas exchange** When oxygen passes from the air sacs into the bloodstream and carbon dioxide passes from the bloodstream into the air sacs.

**Inhaler** A device that delivers medication through the mouth and into the lungs. Common types of inhalers include metered-dose inhalers (MDIs) and dry-powder inhalers (DPIs).

**Irritants** Substances containing particles that irritate the airways, such as smoke, smog, aerosol sprays, and perfume. The lungs respond to irritants by swelling and making more mucus. People with chronic lung disease should avoid irritants when possible.

**Mucus** A secretion in the lining of the airways. It traps dust, smoke, and other particles that are inhaled. Mucus, along with the harmful particles, is coughed up or swallowed. This helps keep the lungs clean.

**Nebulizer** A device that changes medication into a fine mist that can be inhaled.

**Oxygen** ($O_2$) A gas your body needs in order to function.

**Oxygen saturation** A measure of the amount of oxygen in the blood.

**Pulmonary** Having to do with the lungs.

**Pulse oximetry** A test that shows the amount of oxygen in the blood.

**Respiratory** Having to do with breathing (respiration).

**Restrictive lung disease** A condition in which air sacs in the lungs are scarred and become stiff. Air can’t get into the scarred air sacs as easily, making it harder to take a deep breath. Also referred to as “interstitial lung disease.”

**Spacer** A plastic tube often used with a metered-dose inhaler (MDI) to help ensure that most of the medication is inhaled.

**Trapped air** Air that gets trapped in the air sacs and can’t get out of the lungs. Trapped air flattens the diaphragm and makes breathing more difficult.