



COPD Exercise and Activity Guidelines

Pulmonary rehabilitation

Pulmonary rehabilitation is a program that can help you learn how to breathe more easily and improve your quality of life. It includes breathing re-training, exercise training, education, and counseling.

Why should I exercise?

Regular exercise has many benefits. Exercise, especially aerobic exercise, can:

- Improve your circulation and help the body better use oxygen
- Improve your COPD symptoms
- Build energy levels so you can do more activities without becoming tired or short of breath
- Strengthen your heart and cardiovascular system
- Increase endurance
- Lower blood pressure
- Improve muscle tone and strength; improve balance and joint flexibility
- Strengthen bones
- Help reduce body fat and help you reach a healthy weight
- Help reduce stress, tension, anxiety, and depression
- Boost self-image and self-esteem; make you look fit and feel healthy
- Improve sleep
- Make you feel more relaxed and rested

Talk to your health care provider first

Always check with your health care provider before starting an exercise program. Your health care provider can help you find a program that matches your level of fitness and physical condition.

Here are some questions to ask:

- How much exercise can I do each day?
- How often can I exercise each week?
- What type of exercise should I do?
- What type of activities should I avoid?
- Should I take my medicine at a certain time around my exercise schedule?

What type of exercise is best?

Exercise can be divided into three basic types:

- **Stretching:** This is the slow lengthening of the muscles. Stretching the arms and legs before and after exercising helps prepare the muscles for activity and helps prevent injury and muscle strain. Regular stretching also increases your range of motion and flexibility.
- **Cardiovascular or aerobic:** This involves a steady physical activity using large muscle groups. This type of exercise strengthens the heart and lungs, and improves the body's ability to use oxygen. Over time, aerobic

exercise can help decrease your heart rate and blood pressure, and improve your breathing (since your heart won't have to work as hard during exercise).

- ◊ Aerobic exercises include walking, jogging, jumping rope, bicycling (stationary or outdoor), cross-country skiing, skating, rowing, and low-impact aerobics or water aerobics.
- **Strengthening:** This involves repeated muscle contractions (tightening) until the muscle becomes tired. Strengthening exercises for the upper body are especially helpful for people with COPD, as they help increase the strength of your respiratory muscles.

How often should I exercise?

The frequency of an exercise program is how often you exercise. In general, to achieve maximum benefits, you should gradually work up to an exercise session lasting 20 to 30 minutes, at least three to four times a week. Exercising every other day will help you keep a regular exercise schedule.

What should I include in my program?

Every exercise session should include a **warm-up, conditioning phase**, and a **cool down**. The warm-up helps your body adjust slowly from rest to exercise.

A **warm-up** reduces the stress on your heart and muscles, slowly increases your breathing, circulation (heart rate), and body temperature. It also helps improve flexibility and reduce muscle soreness.

The best warm-up includes stretching, range of motion activities, and beginning of the activity at a low intensity level.

The **conditioning phase** follows the warm-up. During this phase, the benefits of exercise are gained and calories are burned. During the conditioning phase, you should monitor the intensity of the activity.

The intensity is how hard you are exercising, which can be measured by checking your heart rate. Your health care provider can give you more information on monitoring your heart rate.

Over time, you can work on increasing the duration of the activity. The duration is how long you exercise during one session.

The **cool-down** phase is the last phase of your exercise session. It allows your body to gradually recover from the conditioning phase. Your heart rate and blood pressure will return to near resting values. Cool-down does not mean to sit down. In fact, do not sit, stand still, or lie down right after exercise. This might cause you to feel dizzy, lightheaded, or have heart palpitations (fluttering in your chest).

The best cool-down is to slowly decrease the intensity of your activity. You might also do some of the same stretching activities you did in the warm-up phase.

General exercise guidelines

- Gradually increase your activity level, especially if you have not been exercising regularly.
- Remember to have fun. Choose an activity you enjoy. Exercising should be fun and not a chore. You'll be more likely to stick with an exercise program if you enjoy the activity. Here are some questions you can think about before choosing a routine:
 - ◊ What physical activities do I enjoy?
 - ◊ Do I prefer group or individual activities?
 - ◊ What programs best fit my schedule?
 - ◊ Do I have physical conditions that limit my choice of exercise?
 - ◊ What goals do I have in mind? (losing weight, strengthening muscles, or improving flexibility, for example)
- Wait at least 1½ hours after eating a meal before exercising.
- When drinking liquids during exercise, remember to follow your fluid restriction guidelines.
- Dress for the weather conditions and wear protective footwear.
- Take time to include a five-minute warm-up, including stretching exercises, before any aerobic activity and include a five- to 10-minute cool down after the activity. Stretching can be done while standing or sitting.
- Schedule exercise into your daily routine. Plan to exercise at the same time every day (such as in the

mornings when you have more energy). Add a variety of exercises so you do not get bored.

- Exercise at a steady pace. Keep a pace that allows you to still talk during the activity.
- Exercise does not have to put a strain on your wallet. Avoid buying expensive equipment or health club memberships unless you are certain you will use them regularly.
- Stick with it. If you exercise regularly, it will soon become part of your lifestyle. Make exercise a lifetime commitment. Finding an exercise "buddy" will also help you stay motivated.
- Keep an exercise record.

Breathing during activity

Always breathe slowly to save your breath. Inhale through your nose, keeping your mouth closed. This warms and moisturizes the air you breathe and at the same time filters it. Exhale through pursed lips.

- Breathe out slowly and gently through pursed lips. This permits more complete lung action when the oxygen you inhale is exchanged for the carbon dioxide you exhale.
- Try to inhale for two seconds and exhale for four seconds. You might find slightly shorter or longer periods are more natural for you. If so, just try to breathe out twice as long as you breathe in.
- Exercise will not harm your lungs. When you experience shortness of breath during an activity, this is an indication that your body needs more oxygen. If you slow your rate of breathing and concentrate on exhaling through pursed lips, you will restore oxygen to your system more rapidly.

Walking guidelines

- Start with a short walk. See how far you can go before you become breathless. Stop and rest whenever you are short of breath.
- Count the number of steps you take while you inhale. Then exhale for twice as many steps. For example, if you inhale while taking two steps, exhale through pursed lips while taking the next four steps. Learn to walk so breathing in and exhaling out will become a habit once you find a comfortable breathing rate.
- Try to increase your walking distance. If you can set specific goals, you'll find you can go farther every day. Many people have found that an increase of 10 feet a day is a good goal.
- Set reasonable goals. Don't walk so far that you can't get back to your starting point without difficulty breathing. Remember, if you are short of breath after limited walking, stop and rest.
- Never overdo it. Always stop and rest for two or three minutes when you start to become short of breath.

Stair climbing

- Hold the handrail lightly to keep your balance and to help yourself climb.
- Take your time.
- Step up while exhaling or breathing out with pursed lips. Place your whole foot flat on each step. Go up two steps with each exhalation.
- Inhale or breathe in while taking a rest before the next step.
- Going downstairs is much easier. Hold the handrail and place each foot flat on the step. Count the number of steps you take while inhaling, and take twice as many steps while exhaling.

Rated Perceived Exertion (RPE) Scale

The RPE scale is used to measure the intensity of your exercise. The RPE scale runs from 0-10. The numbers below relate to phrases used to rate how easy or difficult you find an activity. For example, 0 (nothing at all) would be how you feel when sitting in a chair; 10 (very, very heavy) is how you feel at the end of an exercise stress test or after a very difficult activity.

0 - Nothing at all

0.5 - Just noticeable

1 - Very light

2 - Light

3 - Moderate

4 - Somewhat heavy

5 - Heavy

6

7 - Very heavy

8

9

10 -Very, very heavy

In most cases, you should exercise at a level that feels 3 (moderate) to 4 (somewhat heavy). When using this rating scale, remember to include feelings of shortness of breath, as well as how tired you feel in your legs and overall.

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