

Patient information from BMJ

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COPD: what treatments work?

COPD stands for chronic obstructive pulmonary disease. It means that lung damage is stopping your lungs working as well as they used to. There is no cure but there are treatments that can help stop it getting worse.

You can use our information to talk to your doctor and decide which treatments are right for you.

What treatments work?

If you have COPD the airways in your lungs have been damaged over many years. This damage is usually caused by smoking. But other things can cause COPD, including:

- breathing in other poisonous chemicals (possibly through long exposure to severe air pollution), and
- some inherited genetic conditions.

The aims of treatment for COPD are:

- to prevent and control symptoms
- to reduce the number of exacerbations (this is when your symptoms suddenly get worse) you have and to make them less severe.
- to help your lungs to work better, and
- to help you live a longer and healthier life.

Your treatment should include regular appointments with your doctor to check on your progress. Your doctor should make sure that you understand:

- what COPD is, and
- how to recognize an exacerbation.

Stopping smoking

These days, the main cause of COPD is smoking. Stopping smoking can:

- slow down the damage COPD does to your lungs

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- reduce your chance of cancer and heart problems related to COPD
- help you live longer with a better quality of life.

Of course, stopping smoking is not easy, especially if you have smoked for many years. So your doctor might recommend a quit-smoking program to help you stop. This might include counseling, group meetings, and medication.

For more information on ways to help you quit smoking, see our leaflet *Stopping smoking*.

Staying healthy

Your doctor might discuss **self-management** with you. This doesn't mean that you have to take care of yourself, without medical care. It means that you are helped to learn about COPD so that you can help control it.

People who learn to self-manage their COPD tend to need less hospital treatment.

Self-management plans that you discuss with your doctor should include learning about:

- managing breathlessness
- managing stress
- conserving energy
- avoiding things that make your symptoms worse
- the right types of exercise for people with COPD (and specifically for you), and
- contact information to use if you have an exacerbation.

Some people are able to take part in a lung-care program. They're usually called **pulmonary rehabilitation programs**).

These programs are usually organised in hospitals. You'll learn about how your lungs work and how to do exercises that make them stronger. You'll need to keep doing these exercises at home, after your program finishes.

You'll also learn about your medications and the best way to take them. Ask your doctor if there's a local program near you.

Taking part in a program can:

- reduce your chance of needing hospital treatment
- reduce the depression and anxiety that sometimes go along with COPD
- reduce fatigue
- increase how much you are able to exercise
- help improve your quality of life: for example, by helping you feel more in control of your life and your illness.

Regular exercise can help you stay healthy. Even gentle exercise, such as walking, can help you get fitter and do more of the things you enjoy. Everyone with COPD should try to do as much exercise as they can to keep their lungs as fit as possible.

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It's also important to get your flu and pneumonia shots (vaccinations). If you have COPD, getting flu or pneumonia can be very serious. Talk to your doctor and make sure you get protected. You need a new flu shot every year.

Medications you breathe in

Many types of medication are used to treat people with COPD, depending on what works best for each person. Here, we look at the main ones.

The first treatment you get for COPD will probably be an inhaler, just as you would use if you had asthma. Breathing in medication through an inhaler helps to open up the airways in your lungs and make breathing easier.

There are several kinds of inhaler, so if you find yours hard to use, talk to your doctor. He or she will be able to suggest a different type.

Several types of medication can help relieve the symptoms of COPD when inhaled.

Bronchodilators are drugs that help to open up the airways by relaxing the muscles around the lungs. There are different kinds: some work quickly to give you fast relief from symptoms and others have a more long-term effect.

You may hear your doctor refer to these as short-acting and long-acting drugs. Bronchodilators that you might be prescribed include:

- drugs called beta agonists. These drugs help relax the muscles in the lungs. There are short-acting and long-acting versions.
- anticholinergic drugs. These help relax the muscles in the lungs in a slightly different way from bronchodilators. They also come in short- and long-acting versions.

Other drugs are available if the main ones don't work well enough, but they are less commonly used.

Bronchodilators can cause side effects in some people. For example, bronchodilators called beta-2 agonists may make your hands tremble, or they may make your heart beat faster, especially if you already have a heart problem.

Taking a beta-2 agonist for a long time slightly raises your chance of heart problems, so your doctor should monitor you regularly.

If you've already tried short-acting and long-acting inhalers and you still get symptoms, your doctor may suggest you use a steroid inhaler (the full name is **corticosteroid**). You use this along with a bronchodilator. You may be able to use a single inhaler that contains both drugs.

Corticosteroids help open your airways by reducing inflammation in the lungs. They can help reduce exacerbations and may even help you live longer.

But they are only recommended for people with advanced COPD who have frequent exacerbations. This is because corticosteroids can cause serious side effects.

The most common side effect is a fungal infection in the mouth or throat. It can usually be avoided by gargling with water after each puff. Other possible side effects include weakened

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bones and easy bruising, but these are more common with steroid pills than with the inhaled versions.

Corticosteroids can also increase your chances of getting pneumonia. So your doctor will be cautious about prescribing them if he or she thinks you are at high risk of pneumonia.

Doctors use what's called a "stepwise" approach for COPD medications. This means that you start on the lowest possible dose of medication that's suitable for the severity of your symptoms. Your doctor can then increase or reduce the dose or number of drugs you use, depending on what helps you most.

For your first "step" you'll probably use a fast-acting inhaler. You can use this for quick relief when you get breathless. The medication keeps working for three or four hours.

If fast-acting inhalers don't seem to help much, your doctor may suggest a long-acting inhaler. They don't work as quickly, but the effects last for up to 12 hours. So you only need to take them once or twice a day.

If you are still having severe symptoms, your doctor may suggest that you need **oxygen** to help you breathe more easily. This will mean keeping a supply of oxygen at home. Your doctor or nurse will explain how to use the equipment.

Other treatments you may need

If you cough up a lot of mucus your doctor may suggest you try drugs to break up the mucus. These are called **mucolytics** and they usually come as pills.

Some people who have an exacerbation need treatment in the hospital. If this happens, you may be given **oxygen** to help you breathe more easily, as well as other treatments.

Antibiotics are not usually helpful for COPD. But your doctor might prescribe them if you have an exacerbation that your doctor thinks has been caused by an infection.

Surgery can help some people with COPD. Types of surgery include bullectomy, where damaged parts of the lungs are removed, and lung transplant surgery. But surgery for COPD is usually only used when all other treatments haven't worked.

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