Patient information from the BMJ Group

Bronchitis

In this section

Bronchitis

Bronchitis (a cough) can make your chest hurt, and the coughing can disturb your sleep. Bronchitis usually gets better on its own within a week or two, but you should see a doctor if you're worried about your symptoms.

We've brought together the best research about bronchitis and weighed up the evidence about how to treat it. You can use our information to talk to your doctor and decide which treatments are best for you.

What is bronchitis?

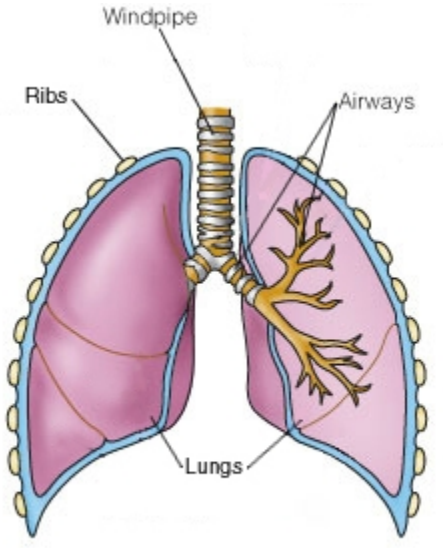
If you have bronchitis, the lining of the airways in your lungs gets inflamed. This makes you cough. Almost all cases of bronchitis are caused by infection with a virus.

Bronchitis doesn't tend to be serious for people who are normally healthy. It usually goes away on its own, even without treatment. But if your symptoms are very bad, your doctor may want to do tests to make sure you don't have a more serious illness, such as pneumonia.

Bronchitis that lasts up to three weeks is called **acute** bronchitis. [1] If your symptoms last more than three weeks, your doctor might say you have **persistent** bronchitis. If you cough up mucus every day for at least three months, two years in a row, it's called **chronic** bronchitis. [1]

This information covers acute bronchitis.

There are lots of different viruses that can cause bronchitis. Doctors think flu (influenza) viruses are one of the most common causes. [1] Cold viruses can also lead to bronchitis. [2] Bronchitis often starts as you're just getting over another illness, such as flu.



You get bronchitis when your body is fighting off a virus that you have breathed in.

Viruses spread easily from one person to another. For example, you can breathe in viruses when you stand next to someone who has just coughed. As your body fights off the virus, it makes the lining of your lungs' airways get inflamed and coated with mucus. This causes the symptoms of bronchitis. Bacteria rarely cause bronchitis. [2]

Some other things can damage the lining of your lungs and lead to bronchitis. For example, breathing in a lot of chemical fumes or smoke from a fire. [2]

Air pollution can also trigger bronchitis, especially if you already have another condition that affects your heart or lungs. [3] Dust from farming, mining, and working with stone can lead to bronchitis. However, it usually takes many years for this type of lung damage to happen. It usually causes long-lasting (chronic) bronchitis, not acute bronchitis.

If you smoke, you're more likely to get chronic bronchitis. [4] [5] But researchers aren't sure if smoking increases your chances of getting a bout of acute bronchitis. To read more about chronic bronchitis, see Chronic obstructive pulmonary disease .

Children under 4 years old and older people are most likely to get bronchitis, especially if they already have other health problems that affect their lungs and heart. [6]

What are the symptoms of bronchitis?

Coughing can make your chest hurt or make you feel out of breath.

The main symptom of bronchitis is a bad cough. [1] Your cough may start a few days after you've had a virus that has given you other symptoms (for example, if you've had the flu). You may have been feeling generally unwell, have a slightly raised temperature, and have aching muscles. [1]

You may cough up mucus, wheeze (make a whistling sound when you breathe), and feel short of breath when you do something like walk up stairs. [1] [2] Bronchitis makes you cough a lot, which can make your chest hurt.

You may be able to manage these symptoms without seeing your doctor. But you should seek medical advice if you are worried about your symptoms, or if you have other health issues like lung problems or heart disease. You should also seek medical help for a young child who is ill with bronchitis. It's also a good idea to see a doctor if you have a cough that lasts for more than two weeks.

Some symptoms might mean you have a more serious condition, such as pneumonia. You should see your doctor if you: [1]

- Have a high temperature (more than 38˚C)
- Feel very out of breath.

Your doctor may send you for a chest x-ray to see if you have pneumonia. Pneumonia happens when a germ (usually bacteria, but occasionally a virus) infects your lungs, causing serious inflammation. This makes it difficult to breathe. To learn more, see Pneumonia .

How common is bronchitis?

Bronchitis is fairly common. Every year about 5 in 100 people will have a bout of bronchitis. [7]

Bronchitis is more common in the autumn and winter. [7]

What treatments work for bronchitis?

Bronchitis usually clears up on its own after a few weeks.

Key points about treating bronchitis

- You may find that it helps to take painkillers, such as paracetamol, and drink lots of fluids.
- Doctors don't usually recommend antibiotics for people with bronchitis. Antibiotics may help a small amount, but they have side effects.
- You may want to try a cough mixture. But there isn't much good-quality research on whether or not this will help.
- There's no good evidence that medicines called expectorants help bronchitis. These medicines aim to clear mucus from the lungs.
- Many cough and cold remedies aren’t recommended for children under the age of 2. To find out more, read Treating coughs and colds in children .

Which treatments work best? We've looked at the research and given a rating for each treatment according to how well it works.

Treatment Group 1

Treatments for bronchitis

Treatments that work, but whose harms may outweigh their benefits

- Antibiotics

Treatments that need further study

- Antihistamines
- Cough suppressants
- Cough expectorants
- Drugs that open up the airways

What will happen to me?

Bronchitis usually gets better on its own. But if you have a very bad cough with other symptoms like a high fever, you should see your doctor.

Your cough should clear up in about seven to 10 days. [2] But some people find it lasts longer. In one study, half the people had a cough that lasted for up to three weeks. [8] One-quarter had a cough for more than a month. [8]

It's a good idea to see a doctor if you have a cough that lasts for more than two weeks, or if you're worried about your symptoms.

We're not sure how often acute bronchitis leads to more serious lung diseases, such as chronic bronchitis or pneumonia.

- One large study of people who went to their doctors with coughs found that, within a month, one-fifth of people had gone back to their doctor with the same symptoms. [7]

- Another study found that one-third of adults with acute bronchitis went on to get symptoms of chronic bronchitis or asthma within three years. [9] But we can't be sure if the original attack of bronchitis caused these conditions, or whether some people are just prone to lung disease.

Some other conditions can be made worse by bronchitis. For example, if you have asthma, chronic obstructive pulmonary disease (COPD), or heart disease, your condition can be made worse by bronchitis. You should see your doctor if your underlying condition becomes worse. Your doctor may need to adjust your usual treatment to help.

Treatments:

Antibiotics

In this section

Antibiotics are drugs that kill bacteria. However, most cases of bronchitis are caused by a virus. [13] That's why antibiotics don't help everyone with bronchitis.

Although taking antibiotics can shorten your illness slightly, the benefit is small. [14] People who take antibiotics feel better about half a day sooner, on average. But taking antibiotics won't help you get back to your normal routine any faster, stop you coughing at night, or reduce the amount of mucus you cough up.

Researchers aren't sure why there's a small benefit from antibiotics. Antibiotics don't kill the viruses that normally cause bronchitis. It's possible that a few of the people in the studies actually had another illness that was caused by bacteria, such as pneumonia. And only a small number of studies have looked at taking antibiotics for bronchitis, so the results showing a benefit could be a fluke.

There are also downsides to taking antibiotics. You may get side effects, and if antibiotics are used too much, they may not work in the future. [14]

Guidelines for doctors say that most people shouldn't be prescribed antibiotics for coughs or bronchitis. But your doctor may suggest antibiotics if you have other medical conditions on top of bronchitis, such as chronic obstructive pulmonary disease (COPD) or heart failure. Older people are more likely to be prescribed antibiotics, because of the risk of getting other infections, such as pneumonia. [15]

The antibiotics looked at in the studies included amoxicillin, erythromycin, and doxycycline. There have been lots of studies that have compared different antibiotics to see if some work better than others. [16] [17] [18] [19] [20] [21] [22] But they all seem to work about the same.

Antibiotics can have side effects, although these are usually mild. In studies, 18 in 100 people taking antibiotics got side effects. But this was only slightly higher than for people taking a dummy treatment (a placebo). About 15 in 100 people taking a placebo said they got side effects.

Common side effects of antibiotics include having an upset stomach, being sick, getting headaches, or getting a rash. [14] Women may get pain and itching in their vagina. [14]

Antihistamines

In this section

We don't know if antihistamines can help bronchitis. There hasn't been enough research to tell us. The research so far suggests that antihistamines don't help stop people coughing.

Antihistamines are often used to treat allergies, such as hay fever. They are often included in over-the-counter medicines to stop you coughing (suppressants). Some antihistamines can make you drowsy. This might be the main way that some cough medicines work. [23]

One antihistamine that's sometimes used in cough medicines is called diphenhydramine. Brand names for products containing diphenhydramine include Benylin Chesty Coughs Original and Cough Nurse Night Time Liquid.

There's not much research on whether antihistamines can help people with bronchitis. What research there is shows that they aren't helpful. [24] The research looked at both adults and children. People taking antihistamines were no more likely to improve than people taking a dummy treatment (a placebo).

Because these drugs can make you drowsy, you shouldn't drive or use machinery while you're taking them.

Many cough and cold remedies aren't recommended for children under 2. If you're in any doubt whether a product is suitable, talk to your doctor or pharmacist. To find out more, read Treating coughs and colds in children.

Cough suppressants

In this section

These medicines are meant to stop you coughing. Some people with a cough find them useful to get a good night's sleep. [23] But we don't know if they help the symptoms of acute bronchitis.

A large review of the research found mixed results on cough suppressants. [24] A few studies were positive, and others were negative. Overall, the research doesn't show clearly whether cough suppressants work or not.

Cough suppressants that you can buy without a prescription often contain: [23]

- pholcodine (brand names include Pavacol-D)
- dextromethorphan (one brand is Benylin Dry Coughs Non Drowsy).

If a cough suppressant helps you cough less, you may cough up less mucus. This could be harmful if you have certain underlying problems, such as chronic bronchitis. [23]

Many cough and cold remedies aren’t recommended for children under 2. If you're in any doubt whether a product is suitable, talk to your doctor or pharmacist. To find out more, read Treating coughs and colds in children .

Some syrupy cough medicines aim to stop you coughing by coating your throat, which may feel soothing. One example is simple linctus. You might find these treatments helpful if you have a dry, irritating cough. [25]

Cough expectorants

In this section

These are cough medicines that are supposed to help you bring up mucus from your airways. You can buy lots of different sorts from a pharmacist. They contain many different substances, such as guaifenesin, squill, and ammonium chloride.

Expectorants are often sold in cough and cold remedies, and come combined with painkillers and medicines called decongestants.

But there's very little research to say whether drugs which aim to clear mucus will help bronchitis. [24]

One study looked at a German herbal syrup made with thyme and ivy, called Bronchipret Saft. [26] The study found that people who took the syrup coughed less and had fewer symptoms than people who took a dummy (placebo) syrup. However, this is just one study and we need to see more research to be sure it works.

Many cough and cold remedies aren’t recommended for children under 2. If you're in any doubt whether a product is suitable, talk to your doctor or pharmacist. To find out more, read Treating coughs and colds in children .

Drugs that open up the airways

In this section

Medicines called beta-2 agonists help to open up your airways. They are often used to treat asthma. They are sometimes called **bronchodilators** because they open up (dilate) the tubes in the lungs (called the bronchioles).

Beta-2 agonists include the drugs salbutamol (Ventolin, Airomir) and terbutaline (Bricanyl). You can take them as tablets or a liquid, or breathe them in with an inhaler. You can only get these drugs on prescription from your doctor.

Because these drugs help people with asthma to breathe more easily, they have been tested to see if they help with bronchitis. However, they don't seem to help people with bronchitis who don't also have asthma.

We found seven good-quality studies that looked at whether these drugs could help children and adults. [27] The research was mixed. Some studies showed a benefit, and others didn't. The researchers think this may be because some studies included people with wheezing or asthma. Beta-2 agonists may have been helpful for these people, but not for people who just had bronchitis.

When doctors recommend beta-2 agonists, they usually suggest taking them with an inhaler. Unfortunately, most of the research looked at people who took beta-2 agonists as syrups or tablets. So we can't say whether using an inhaler would be better or not.

As a side effect, beta-2 agonists can cause trembling and shaking in both adults and children. [27]

Further informations:

Treating coughs and colds in children

Many over-the-counter cough and cold remedies are no longer sold for use in children under the age of 2. [10]

That includes cough and cold medicines containing the following ingredients:

- brompheniramine, chlorphenamine, and diphenhydramine (antihistamines)
- dextromethorphan and pholcodine (cough suppressants)

- guaifenesin and ipecacuanha (expectorants to help you cough up phlegm)
- phenylephrine, pseudoephedrine, ephedrine, oxymetazoline, and xylometazoline (decongestants to unblock nasal passages).

In the US, a review of the safety of cough and cold medicines for young children found several worrying cases where children had been seriously harmed. These cases were mainly when children under the age of 2 had been accidentally given a dose that was too high. [11]

There have been far fewer reports of these medicines harming children in the UK. But, to be on the safe side, the Medicines and Healthcare products Regulatory Agency (MHRA), the body that monitors the safety of medicines in the UK, has decided to limit the medicines that can be used for very young children.

Bear in mind that most colds and coughs clear up on their own within a few days. Drugs won't cure the cough or cold; they will only help make the symptoms milder.

The MHRA has recommended some treatments that are suitable for young children with coughs and colds. [10] But you still need to take great care not to give more than the recommended dose.

To lower a child's temperature, you can use paracetamol or ibuprofen. For treating coughs, you can use a simple cough syrup, such as glycerol, honey, or lemon. Nasal drops of saline (sterile salt water) can be used to help unblock babies' noses if they are having trouble feeding.

You can also help relieve a child's blocked-up nose using vapour rubs and inhaled decongestants that you put on children's clothing, such as menthol. Inhaled decongestants used as rubs or on pillows are not advised for children under 3 months. [12]

Parents and carers of children older than 2 should:

- Read the label on any medicine you give your child. Check the active ingredients section of the label, and the correct dose for your child's age.
- Be very careful if you give more than one medicine to a child. If you use two medicines with the same active ingredients, your child could get too much.
- Only use the measuring spoons or cups that come with the medicine.

Call a pharmacist, GP, or other health care professional if you have any questions about using cough or cold medicines in children.

Glossary:

pneumonia

Pneumonia is an infection in your lungs. Anything that causes infections (bacteria, viruses or fungi, for example) can give you pneumonia.

viruses
Viruses are microbes (tiny organisms) that need the cells of humans or other animals to exist. They use the machinery of cells to reproduce. Then they spread to other cells in the body.

inflammation
Inflammation is when your skin or some other part of your body becomes red, swollen, hot, and sore. Inflammation happens because your body is trying to protect you from germs, from something that's in your body and could harm you (like a splinter) or from things that cause allergies (these things are called allergens). Inflammation is one of the ways in which your body heals an infection or an injury.

bacteria
Bacteria are tiny organisms. There are lots of different types. Some are harmful and can cause disease. But some bacteria live in your body without causing any harm.

X-ray
X-rays are pictures taken of the inside of your body. They are made by passing small amounts of radiation through your body and then onto film.

chronic bronchitis
Your doctor may say that you have chronic bronchitis if you have a cough that brings up phlegm, if it lasts for three months or more, and you have had it twice in two years. Smoking is a common cause of chronic bronchitis.

asthma
Asthma is a disease of the lungs. It makes you wheeze, cough and feel short of breath. Asthma attacks are caused by inflammation and narrowing of your airways, which makes it hard for air to pass in and out of your lungs.

chronic obstructive pulmonary disease (COPD)
Chronic obstructive pulmonary disease (COPD) is an illness that causes coughing and difficulty breathing. Most of the people who get it have smoked for a long time. COPD can include both emphysema, which is the breakdown of air sacs (alveoli) in your lungs, and chronic bronchitis, which is a recurrent, long-lasting cough that brings up phlegm.

heart disease
You get heart disease when your heart isn't able to pump blood as well as it should. This can happen for a variety of reasons.

placebo
A placebo is a 'pretend' or dummy treatment that contains no active substances. A placebo is often given to half the people taking part in medical research trials, for comparison with the 'real' treatment. It is made to look and taste identical to the drug treatment being tested, so that people in the studies do not know if they are getting the placebo or the 'real' treatment. Researchers often talk about the 'placebo effect'. This is where patients feel better after having a placebo treatment because they expect to feel better. Tests may indicate that they actually are better. In the same way, people can also get side effects after having a placebo treatment. Drug treatments can also have a 'placebo effect'. This is why, to get a true picture of how well a drug works, it is important to compare it against a placebo treatment.

allergy
If you have an allergy to something (such as pollen or a medicine), your body always overreacts to it. The reaction happens because your immune system (your body's system for fighting infection) is too sensitive to it.

hay fever
You get hay fever when your immune system reacts too strongly to pollen or mould. Your doctor may call it seasonal allergic rhinitis. The most common symptoms are sneezing, a runny or blocked nose, and red, itchy eyes. You may also cough or wheeze.

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