

Patient information from the BMJ Group

Sore throat

In this section

[What is it?](#)

[What are the symptoms?](#)

[How is it diagnosed?](#)

[How common is it?](#)

[What treatments work?](#)

[What will happen?](#)

[Questions to ask](#)

Sore throat

A sore throat can be painful, especially when you swallow. But it usually clears up on its own after three or four days. And there are things you can do to make yourself feel more comfortable.

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

What is a sore throat?

A sore throat is caused by an infection. The infection could be caused by bacteria or a virus. Sore throats are very common, and are often part of another illness, such as a cold. A sore throat isn't usually serious and will probably get better on its own.

Viruses, like the ones that cause colds, are the most common cause of a sore throat.^[1] They spread easily from one person to another. You can pick up a cold virus by breathing in droplets carrying viruses after somebody sneezes.^[2] Antibiotics don't work against viruses.

Some viruses can cause very severe sore throats. For example, **glandular fever**, which tends to affect young adults, is caused by a virus. Most people recover from glandular fever within four to six weeks without any treatment.

Bacteria can also cause sore throats. You may hear a sore throat called **strep throat**. This is short for *Streptococcus*, the most common type of bacteria to cause a sore throat.^[1]

You won't usually be able to tell what's caused your sore throat because the symptoms are the same whether it's a bacteria or virus.

A sore throat can also be a symptom of other illnesses that affect parts of the throat, such as bronchitis, tonsillitis, sinusitis, and laryngitis (when the voice box gets inflamed).

Sore throat

What are the symptoms of a sore throat?

A sore throat generally causes pain in the part of the throat that you can see when you open your mouth wide: around the tonsils and the back of your throat.

The main symptoms are: ^[3]

- A painful, itchy, or scratchy throat, especially when you swallow
- Redness in your throat
- White patches on your tonsils (your tonsils are small glands at either side of your throat)
- A temperature
- A headache.

Children who have a throat infection may not complain of a sore throat. Instead, they may say they have a tummy ache. ^[4] They may also feel sick and vomit. ^[4]

Most sore throats aren't serious. But you may want to speak to a GP if you or your child has: ^[4]

- A lot of difficulty swallowing or breathing
- A temperature of more than 38.3°C (101°F)
- Very tender or swollen lymph glands in the neck
- Severe pain in the sinuses (sinuses are pockets of air in your cheek bones, in the bones between your eyes, and in your forehead)
- A cough that produces mucus.

How common is a sore throat?

Sore throats are very common. But it's difficult to say exactly how many people get a sore throat because most people don't go to their doctor about it.

About half of us probably get a sore throat every year. ^[5] Children aged between 5 and 10 and young adults up to the age of 25 get more sore throats than older people. ^[6]

Most sore throats are caused by viruses. A study in more than 200,000 people whose sore throat was bad enough for them to go to a pharmacy for advice or treatment found

Sore throat

that only between 1 in 4 and 1 in 5 had a sore throat caused by a bacteria called *Streptococcus*.^[7]

What treatments work for a sore throat?

Treatments can help to relieve the pain of a sore throat. You won't usually need to see your doctor.

You may want to try some home remedies such as drinking warm tea with honey or gargling with salt water. Most simple remedies aim to keep your throat lubricated. To read more, see [Home remedies for a sore throat](#) .

Key points for treatment of a sore throat

- Painkillers such as paracetamol, aspirin, and ibuprofen can help relieve the pain of a sore throat. You can buy these from a pharmacy. You shouldn't give aspirin to children under 16. It can very occasionally cause a condition called Reye's syndrome, which affects the brain and liver.
- Antibiotics help some people, but they can have side effects. You don't usually need them for a sore throat unless the sore throat is caused by bacteria called *Streptococci*. They don't work for sore throats caused by viruses.

We've looked closely at the research and put the treatments into categories, according to whether they work.

Treatment Group 1

Treatments for sore throat

Treatments that are likely to work

- [Paracetamol](#)

Treatments that work, but whose harms may outweigh benefits

- [Antibiotics](#)
- [Aspirin or ibuprofen](#)

Treatments that need further study

- [Chinese herbal medicine](#)
- [Probiotics to prevent a sore throat](#)

Sore throat

What will happen to me?

A sore throat will usually clear up on its own.

You'll probably make a full recovery after three or four days.^[8] Painkillers can make you more comfortable while you're getting better. Some people also try simple remedies to soothe a sore throat, such as sucking on throat lozenges or gargling with salt water. To read more, see [Home remedies for a sore throat](#) .

Sometimes the infection that causes a sore throat spreads. If this happens, you may become hoarse or lose your voice (laryngitis), get an ear infection, or get sinusitis. Sinusitis causes pain in your face.

Very rarely, people get serious complications from a sore throat. These include an abscess on your tonsils, rheumatic fever, or a kidney infection.^[9] ^[10]

Treatments:

Aspirin or ibuprofen

In this section

Lots of studies have shown that taking one of these medicines can relieve the pain of a sore throat.^[11] They are painkillers that also reduce **inflammation** . You can buy them from a pharmacy without a prescription.

You can also get painkillers that dissolve slowly in your mouth. The idea is that this gives the medicine time to act directly on your throat. You can buy lozenges from a pharmacist that contain a drug called flurbiprofen , which is similar to ibuprofen. The brand name is Strefen.

Aspirin, ibuprofen, and other similar drugs can irritate your stomach and cause **ulcers** or bleeding.^[12] They have also been linked to kidney damage, but this shouldn't be a problem if you take the recommended dose for only a few days.

Guidelines for doctors recommend ibuprofen as the best painkiller for adults with a sore throat. For children, the recommended treatment is [paracetamol](#) , although ibuprofen can also be used.^[13]

You shouldn't give aspirin to children under 16. It can very occasionally cause a condition called Reye's syndrome, which affects the brain and liver.^[14]

Some over-the-counter medicines are only suitable for children over certain ages. Ask your pharmacist for advice, or check the packaging.

Paracetamol

In this section

Sore throat

Paracetamol is a painkiller. You can get it without a prescription.

Four good studies (called **randomised controlled trials**) have shown that paracetamol helps to relieve the pain of a sore throat in both adults and children.^[11] ^[15] One dose of paracetamol starts to work in about 15 minutes and lasts for up to six hours.

Paracetamol doesn't irritate your stomach in the way that aspirin or ibuprofen can. However, it's important not to take more than the recommended dose, because taking too much can cause liver damage.^[14] If you're taking other cold or cough remedies, you should always check whether these contain paracetamol before taking paracetamol tablets or syrup.

Some over-the-counter medicines are only suitable for children over certain ages. Ask your pharmacist for advice, or check the packaging.

Antibiotics

In this section

Antibiotics are medicines that kill bacteria. They don't work against viruses, which are the most common cause of sore throats. Antibiotics may help if you have strep throat (a sore throat caused by bacteria called *Streptococcus*).

There are lots of different antibiotics. Amoxicillin and erythromycin are two that doctors commonly prescribe.

Antibiotics can cut the time you have a sore throat caused by bacteria by about one day.^[8] They can also reduce the risk of complications such as rheumatic fever, an ear infection, or an abscess on the tonsils.^[8] But rheumatic fever and abscesses are very rare anyway.

Most doctors are careful not to prescribe antibiotics unless they think you really need them, as antibiotics may not work as well in the future if they are used too much. This is because bacteria can become resistant to antibiotics.

Antibiotics can also cause side effects such as an upset stomach, diarrhoea, and a rash.^[16]

For people with severe sore throat who need antibiotics, doctors have looked at adding another treatment, called steroid tablets. Steroid tablets (full name corticosteroids) calm swelling and inflammation in the body. One review of studies found that steroids in addition to antibiotics can reduce the pain of a sore throat in adults and also help the pain go away faster. However, it wasn't clear whether the treatment helped children, or worked without antibiotics.^[17] Steroid tablets are an experimental treatment for sore throat and are not often used.

Probiotics to prevent a sore throat

Sore throat

In this section

Probiotics are the 'friendly' or 'good' bacteria that live in your gut and help to keep you healthy. They are often added to dairy products like yoghurt, and promoted as being good for you.

Scientists wanted to find out whether bacteria related to the ones that cause sore throats could be used as a probiotic to stop people getting so many sore throats. These bacteria live in some people without causing any illness. Doctors took these bacteria from people who weren't ill and grew them in a laboratory. They then made the bacteria into a spray that people could squirt into the backs of their throats.

Some studies found that using the spray reduced the number of sore throats people got. ^[18] ^[19] ^[20] In one study, only 1 in 17 people who used the probiotic spray got a sore throat in the next three months. Out of people who used a dummy spray, 11 out of 19 got a sore throat. ^[18] There were no side effects.

But this treatment is still experimental and we need more studies to know whether it works. The research so far looks only at using probiotics to prevent a sore throat, not to treat it once you're ill.

Chinese herbal medicine

In this section

In Chinese herbal medicine, plants are combined to make special teas or mixtures that may be used for a sore throat. One summary of the research (a systematic review) looked at 12 different studies of these combinations. Some treatments seemed to help, but because the studies were small or had problems with their design, we can't really say if these treatments are useful for a sore throat or not. ^[21]

It's important to bear in mind that herbal medicines can have side effects or react with drugs you may be taking.

Also, some traditional Chinese medicines that have been on the UK market have been found to contain dangerous or illegal ingredients.

It's important to talk to your doctor or pharmacist if you wish to try a herbal remedy, especially if you are taking other medicine.

Further informations:

Home remedies for a sore throat

There are several things you can try to help you feel more comfortable while your body fights off a sore throat. We haven't looked at the research on how well these remedies work. But they're easy to do, so you may think they're worth trying.

Sore throat

- Gargling and rinsing your mouth with salt water may help. Dissolve half a teaspoon of salt in a glass of warm water, and gargle and rinse vigorously. Do this several times a day.
- Sucking throat lozenges or hard sweets makes you produce more saliva. This can make you more comfortable by lubricating your throat. But don't give hard sweets or lozenges to young children, because there's a risk they could choke.
- Any type of fluid can also keep your throat lubricated, so make sure you drink plenty of water or soft drinks. Some people find that sucking something cold, such as an ice lolly, can help.
- Warm drinks can also be soothing. You could try tea with honey or lemon.

Glossary:

lymph nodes

Lymph nodes (also called lymph glands) are small, bean-shaped lumps that you can't usually see or feel easily. You have them in various parts of your body, such as your neck, armpits, and groin. Lymph nodes filter lymph and remove unwanted things from your body, such as bacteria and cancer cells.

antibiotics

These medicines are used to help your immune system fight infection. There are a number of different types of antibiotics that work in different ways to get rid of bacteria, parasites, and other infectious agents. Antibiotics do not work against viruses.

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.

ulcer

An ulcer is an open sore. Ulcers can happen in many parts of your body, such as in your stomach, and the skin of your legs, mouth, or genitals.

randomised controlled trials

Randomised controlled trials are medical studies designed to test whether a treatment works. Patients are split into groups. One group is given the treatment being tested (for example, an antidepressant drug) while another group (called the comparison or control group) is given an alternative treatment. This could be a different type of drug or a dummy treatment (a placebo). Researchers then compare the effects of the different treatments.

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Sore throat

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