

Patient information from the BMJ Group

Mouth ulcers

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](#)

Mouth ulcers

Mouth ulcers are small, very sore patches inside your mouth. Nearly everyone gets them at some time. Most go away in a week or so. But some people keep getting them. There are lots of mouthwashes, gels, and creams that may make your mouth ulcers go away faster and hurt less.

We've brought together the best research about mouth ulcers 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. This information is for people who keep getting mouth ulcers.

What are recurrent mouth ulcers?

Mouth ulcers are small, white sores inside your mouth where the top layer of the skin is damaged. They are very sore but usually don't last long.



Mouth ulcers are small, white sores inside your mouth.

If you keep getting bouts of mouth ulcers every few months, weeks, or even every few days, doctors say you have recurrent mouth ulcers.^[1] You may also hear them called **aphthous ulcers**.

Doctors divide recurrent mouth ulcers into three main types, depending on how big they are and where in your mouth you get them.

Mouth ulcers

Minor mouth ulcers

Most people get minor mouth ulcers. These are round or oval, and usually less than 5 millimetres (a little less than one-fifth of an inch) across. They tend to be greyish-white, with redness around them, and are usually on the inside of your lips or cheeks, or on the floor of your mouth. People usually get one to five ulcers at a time. ^[2]

Major mouth ulcers

Major mouth ulcers are less common than minor mouth ulcers, and they are oval and larger. They may be 1 to 3 centimetres (nearly one-half to one-and-a-quarter inches) across. They often happen on the lips or towards the back of the roof of your mouth (the soft palate), but they can be anywhere in your mouth. People usually get one to 10 ulcers at a time. ^[1]

Herpetiform ulcers

Some people get lots of small, painful ulcers called **herpetiform ulcers**. These ulcers can occur anywhere in the mouth. You may have as many as 100 at a time, each measuring 2 to 3 millimetres (about one-eighth of an inch) across. Some join together to form large, irregularly-shaped ulcers. ^[1]

What are the symptoms of recurrent mouth ulcers?

The main symptom you'll notice with mouth ulcers is that your mouth gets very sore on and around the ulcers. How bad the pain is will depend on where the ulcers are, and how many you have.

You may find that eating or talking makes the pain worse. If it's really bad, you may try to avoid eating or talking altogether. If you often having difficulty eating because of mouth ulcers, you need to be careful not to lose too much weight.

If your mouth ulcers keep coming back, or if you have an ulcer that takes more than a week to heal, your dentist or doctor should take a look. ^[2]

Your dentist or doctor will examine your mouth and ask you: ^[1]

- How often you get mouth ulcers
- How quickly they go away
- If anything seems to trigger them or make them worse
- Whether you can eat when you get them and, if not, whether you've lost weight as a result.

Mouth ulcers

You probably won't have any other symptoms. If you do, it could be a sign that you have an **infection** or another condition that is causing the mouth ulcers. Tell your doctor if you also have a fever, a stomach upset, or ulcers anywhere else on your body.^[2]

Doctors don't usually do any tests for mouth ulcers. But if your doctor thinks you may not have enough iron in your blood, you may have a blood test.^[1]

If your doctor or dentist thinks your ulcers may be caused by another illness, you will be referred to see a specialist. For more information about other causes, read [What else could it be?](#)

How common are recurrent mouth ulcers?

It's very common to get mouth ulcers.

Up to two-thirds of people get bouts of recurrent mouth ulcers at some time in their life.^[3] You're more likely to get them when you are a young adult, but they're also common in children.^[2] About 1 in 10 to 1 in 20 children have recurrent mouth ulcers.^[3]

You may be more likely to get recurrent mouth ulcers if:^[1]

- You have too little iron, folic acid, or vitamin B-12 in your bloodstream
- You are sensitive to gluten, which is a protein found in wheat (this is called **coeliac disease**)
- You injure your mouth (for example, by biting the inside of your cheek or grazing it with a sharp tooth)
- Someone else in your family has recurrent mouth ulcers.

What treatments work for recurrent mouth ulcers?

There's no one treatment that works for everyone with recurrent mouth ulcers. You may need to try a few treatments to see what works best for you.

- Mouthwashes and gels containing an **antiseptic** called chlorhexidine may make your ulcers less painful and go away faster.
- Mouthwashes, lozenges, pastes, or sprays containing steroids also may be helpful.
- You can also buy painkilling sprays and rinses, gels, and pastes that protect the ulcer.
- There are some things you can try yourself that may help you avoid mouth ulcers. To learn more, read [Self-help to avoid mouth ulcers](#) .

Mouth ulcers

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

Treatment Group 1

Treatments for mouth ulcers

Treatments that are likely to work

- [Chlorhexidine and similar antiseptics](#)

Treatments that need further study

- [Steroid lozenges, mouthwashes, pastes, and sprays](#)
- [Painkilling mouthwashes, lozenges, sprays, and gels](#)

What will happen to me?

What will happen to you depends on the type of mouth ulcers you've been getting.

Among people who have recurrent mouth ulcers:^[3]

- 8 in 10 have minor ulcers
- 1 in 10 have major ulcers
- 1 in 10 have herpetiform ulcers.

To read more about the types of ulcers, see [What are recurrent mouth ulcers?](#)

If you get **minor recurrent mouth ulcers**, you may get them every one to four months. They should heal within four to 14 days. They shouldn't leave any scarring when they heal.^[1]

We don't know if you will continue to get them, or if you'll stop getting them eventually. But mouth ulcers are more common in teenagers and young adults.^[2] So you may find you get them less often as you get older.

If you get **major recurrent mouth ulcers**, you may get them every month. These sores can take more than a month to heal, and may leave scars on the inside of your mouth.^[1]

They tend to start around **puberty**. Once you've started getting them, you may keep getting bouts of them for 20 years or more.^[4]

Mouth ulcers

Herpetiform ulcers can happen once a month and stay for up to a month. But they do not usually leave scars. ^[1]

If you have bad ulcers, your doctor or dentist should check after a few days to see if they are starting to heal. If you have an ulcer that doesn't heal in two to three weeks, you'll need to see a specialist. ^[5]

Having recurrent ulcers can be distressing, especially if they are major ulcers and cause you a lot of pain. You can take painkillers, such as ibuprofen and paracetamol, to help with the pain. ^[2]

If the pain is so bad that you can't eat at all during an attack, you should talk to your doctor about the different treatments available. To read about treatments, see [What treatments work for recurrent mouth ulcers?](#) You may need to try a few treatments before you find one that works for you. ^[5]

If your child has recurrent ulcers, you'll need to be especially careful that they are eating and drinking enough. If your child refuses to eat at all during attacks, your doctor may be able to suggest ways of ensuring your child gets enough nutrients. ^[5]

There are some things you can try yourself that may help you avoid getting more mouth ulcers. To learn more, read [Self-help to avoid mouth ulcers](#) .

Treatments:

Chlorhexidine and similar antiseptics

In this section

There's some good evidence that using chlorhexidine can help with mouth ulcers. ^[6] ^[7] ^[8]

Chlorhexidine (brand names Chlorohex, Corsodyl) is an antiseptic. It's available as a mouthwash, gel, or mouth spray to use every day. It probably works by keeping away germs that could infect your mouth ulcers and make them worse.

If you use chlorhexidine antiseptic, your mouth ulcers may be smaller and less painful, and they may go away faster. But chlorhexidine probably won't affect how often you get mouth ulcers.

We found four good-quality studies (randomised controlled trials) of antiseptic mouthwashes or gels for recurrent mouth ulcers. ^[6] ^[7] ^[8] They included a total of 203 people. The studies compared chlorhexidine or similar products with dummy mouthwashes or gels (placebos). They showed:

- People using chlorhexidine had mouth ulcers for fewer days over four to six weeks ^[7] ^[8]

Mouth ulcers

- Using chlorhexidine made mouth ulcers less painful^[6] ^[7]
- Mouth ulcers went away more quickly when people used chlorhexidine or a similar product, but in most studies the average difference was less than a day^[6] ^[7] ^[8]
- One of the studies showed that people got fewer new mouth ulcers when they used chlorhexidine gel. But there were problems with the way this study was done, so we can't rely on it.^[7] The other four studies didn't show this result.^[6] ^[8]

The disadvantage of chlorhexidine is that it has a bitter taste and may make you feel sick.^[7] If you use it every day, it can stain your teeth and tongue brown.^[7] This discoloration should go away when you stop using it.

Another antiseptic mouthwash is called hexetidine (brand name Oraldene). There hasn't been much high-quality research on hexetidine as a treatment for mouth ulcers. We only found one small study, which included 40 people with recurrent mouth ulcers.^[9] People who used hexetidine did not feel any better than those who were using a placebo (dummy) treatment.

Another antiseptic is called thymol. It's found in Listerine mouthwash. But there hasn't been much high-quality research on thymol for mouth ulcers. One study found it worked no better to reduce the symptoms of mouth ulcers than a dummy treatment (placebo).^[10]

Steroid lozenges, mouthwashes, pastes, and sprays

In this section

We can't be sure whether using a steroid medicine every day will improve your mouth ulcers or help you get them less often. The research is mixed, so it's not clear whether or not they help.

The full name for these medicines is corticosteroids. They're similar to substances made naturally in the body. They're not the same as the anabolic steroids that some bodybuilders use.

You can get steroids for mouth ulcers in the form of mouthwashes, pastes, sprays, and lozenges. You can buy some of these from a pharmacy. For others, you'll need a prescription from your doctor or dentist.

Here are some of their names.

- Hydrocortisone lozenges: You need to hold them in your mouth and suck them slowly, rather than chew them. You can buy these from a pharmacy.
- Triamcinolone paste: You put a little of this paste directly onto the mouth ulcers.

Mouth ulcers

- Betamethasone mouthwash: This comes as a tablet that you dissolve in water. You wash this around your mouth, then spit it out. You need to do this four times a day. You shouldn't swallow it. The brand name is Betnesol.
- Some studies have looked at using a steroid spray to treat mouth ulcers. The steroid sprays available in the UK are usually used to treat asthma or hay fever. But they're sometimes prescribed for mouth ulcers. You spray them onto your ulcer instead of breathing them in.

We found nine studies (randomised controlled trials) that tested the effects of steroids on mouth ulcers.^{[11] [12] [13] [14] [15] [16] [17] [18] [19]} But none of the studies were very large, and they showed different things.

Some studies showed that steroids:

- Meant people had ulcers less of the time.^{[11] [12] [13] [14]} People had ulcers on slightly fewer days out of every four to six weeks
- Made the mouth ulcers go away more quickly^{[15] [17]}
- Reduced the pain of recurrent mouth ulcers.^{[15] [17] [18]}

However, steroids didn't make much difference to how many mouth ulcers people got.^{[11] [12] [13] [14] [15] [16]}

Using steroid pastes, rinses, or similar treatments means you won't end up swallowing too much of your treatment. This means that as little as possible gets into the rest of your body, so side effects are rare. Occasionally, people who use steroids in their mouth get an **infection** called thrush. To find out more, see [Oral thrush](#) .

Painkilling mouthwashes, lozenges, sprays, and gels

In this section

There isn't very good research on lozenges, sprays, and gels that contain a local anaesthetic or painkiller, but they may help to take away some of the pain caused by mouth ulcers. However, the effect may not last very long and you have to keep reapplying them.

There are lots of different painkilling treatments for mouth ulcers that you can buy from the pharmacy. Common ones include

- Benzydamine. This is a type of painkiller called a non-steroidal anti-inflammatory drug (or NSAID for short). It comes as a mouthwash and spray under the brand name Difflam. But the mouthwash should not be used by children under 12. You may need to dilute the mouthwash if it stings.

Mouth ulcers

- Choline salicylate. This is another painkiller. One brand name is Bonjela. This treatment isn't recommended for anyone under 16. There's a theoretical risk of a serious illness called Reye's syndrome for young people who use this type of painkiller. ^[20]
- Lidocaine. This is an anaesthetic that is often used to numb areas of skin before minor operations, such as on the skin or in the mouth. It comes as lozenges, sprays, and gels. Some brand names include Iglu, Anbesol, and Xylocaine.

We found just one study that looked at benzydamine mouthwash for mouth ulcers. ^[21] It found that benzydamine mouthwash did not help to reduce pain or reduce the number of mouth ulcers. More studies are needed for us to know whether painkilling mouthwashes, gels, and sprays help to reduce the pain of mouth ulcers.

Further informations:

What else could it be?

Some illnesses make you more likely to get mouth ulcers. If your mouth ulcers are caused by an illness, they are likely to be bigger and take longer to heal. ^[2]

If your doctor is concerned that your mouth ulcers may be caused by an illness, you'll be referred to see a specialist.

These are some of the illnesses that can cause bad mouth ulcers. Remember that most people with mouth ulcers don't have these illnesses.

Infections

Certain viruses make it more likely that you'll keep getting mouth ulcers. These include the herpes virus, the varicella virus (the virus that causes chickenpox), cytomegalovirus (a common type of herpes virus), and coxsackievirus (the virus that causes an illness in children called hand-foot-and-mouth disease). ^[2]

Conditions that affect the immune system

Several conditions make you more likely to get mouth ulcers because your immune system is not working properly. But if that's the case, you'll probably have ulcers in other places on your body, as well as in your mouth. These conditions include Behcet's syndrome, Reiter's syndrome, and inflammatory bowel disease. They all increase the amount of inflammation in the body and can cause ulcers. You should tell your doctor if you also have sore eyes, bloody diarrhoea that keeps coming back, or sores on your genitals. ^[2]

Mouth ulcers

HIV/AIDS

People infected with the human immunodeficiency virus (HIV), which causes AIDS, often get problems with ulcers. That's because their immune system has trouble fighting off germs, so ulcers are more likely to get infected. If you are at risk of HIV and you're getting a lot of ulcers that don't go away, your doctor may suggest you have a test for HIV. ^[2]

Skin cancer

If a mouth ulcer doesn't heal up, it may not be a mouth ulcer at all. It could be the start of a type of skin cancer called squamous cell carcinoma. If you have this, you'll also have swollen glands in your head or neck. If a specialist suspects your mouth ulcer may be skin cancer, they will take samples of cells from your mouth to be looked at in a laboratory. ^[2]

Self-help to avoid mouth ulcers

There are some things you can try that may help you to avoid getting more mouth ulcers. These things haven't been studied in the same way as the other treatments we cover. (See Our method for more information.) But we wanted to include them because some people find them helpful.

To try to prevent mouth ulcers, you could: ^[5]

- Make sure you clean your teeth properly, three times a day, to avoid getting infections
- Make sure your toothbrush is the right size for you. If you use the wrong size, you're more likely to injure your mouth when you brush. This can cause mouth ulcers. Ask your dentist what size brush you should use
- Avoid acidic drinks, such as fruit juices or fizzy drinks, or drink them through a straw so they don't irritate your mouth
- Avoid very spicy food and sharp food, such as potato crisps, which can injure your mouth
- Learn to relax. Some people think stress can bring on mouth ulcers.

Glossary:

infection

You get an infection when bacteria, a fungus, or a virus get into a part of your body where it shouldn't be. For example, an infection in your nose and airways causes the common cold. An infection in your skin can cause rashes such as athlete's foot. The organisms that cause infections are so tiny that you can't see them without a microscope.

Mouth ulcers

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.

herpes simplex

Herpes simplex is a virus that causes a blistering skin rash. There are two different types of herpes simplex virus (HSV). HSV1 causes cold sores in your mouth. It's usually spread through saliva or through direct skin contact (like kissing). HSV2 causes a rash in your genital area. It is spread by rubbing during intimate contact (like having sex or sexual foreplay).

chickenpox

Chickenpox is a common childhood illness caused by a virus. It usually leads to a fever, tiredness and an itchy rash. The virus can easily spread from person to person, and people usually get it about two weeks after they were near someone with the illness. About two days before the rash starts, you can give the virus to others. Chickenpox clears up on its own in most children, but adults and some children may get complications such as pneumonia, kidney problems or heart problems. In the UK, people aren't usually immunised against chickenpox unless they have an immune disease (or another disease that would make infection dangerous for them).

hand-foot-and-mouth disease

Hand-foot-and-mouth disease is a common problem, particularly in young children. It happens when they get infected with a certain type of virus. They get a fever and bumps or blisters on their tongue and mouth. They also get tender bumps on their hands, feet and buttocks. They may get these bumps in their genital area. Hand-foot-and-mouth disease usually comes on suddenly, and clears up in a few days.

immune system

Your immune system is made up of the parts of your body that fight infection. When bacteria or viruses get into your body, it's your immune system that kills them. Antibodies and white blood cells are part of your immune system. They travel in your blood and attack bacteria, viruses and other things that could damage your 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.

diarrhoea

Diarrhoea is when you have loose, watery stools and you need to go to the toilet far more often than usual. Doctors say you have diarrhoea if you need to go to the toilet more than three times a day.

HIV

HIV stands for human immunodeficiency virus. It's the virus that causes AIDS. It makes you ill by damaging cells called CD4 cells. Your body needs these cells to fight infections. You can get HIV by sharing needles for injecting drugs, or by having sex without a condom with someone who has the virus.

AIDS

AIDS stands for acquired immunodeficiency syndrome. People who are infected with the human immunodeficiency virus (HIV) get AIDS when the virus has destroyed most of their immune system. When people have AIDS, their body isn't able to fight infections. So even common infections, such as colds, can cause serious problems.

squamous cell cancer

This is the second most common type of skin cancer (basal cell cancer is the most common). Squamous cell cancer starts as a small rash on your skin. If it's not caught early, it can spread and cause serious problems. Squamous cell cancer can be treated if it is found early. Doctors often call it squamous cell carcinoma.

gland

A gland is any group of cells in the body that makes and releases something for use by another part of the body. For example, the thyroid gland makes a hormone called thyroxine. This acts on receptors within cells. By acting on the receptors it gives the cells a message to speed up their metabolism and work harder.

puberty

Puberty is the time when boys and girls develop secondary sexual characteristics. For boys, the major changes include pubic hair, a deeper voice, and growth of their penis and testicles. For girls, major changes include pubic hair, breasts and starting to have periods. After puberty, girls are able to become pregnant and boys are able to father children.

antiseptic

An antiseptic is a substance used to kill harmful germs on your skin.

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

Mouth ulcers

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.

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.

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Mouth ulcers

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