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Cold sores

About 1 in 5 people in the UK have recurring cold sores. Cold sores usually resolve on their own without treatment in 7-10 days. Antiviral creams may help to reduce the severity of cold sore symptoms, and they are most effective the earlier they are used when a cold sore is starting to develop.

Cold sores causes

Cold sores are caused by the herpes simplex virus (HSV). Most cold sores are caused by the type 1 strain (HSV-1). The type 2 HSV strain (HSV-2) usually causes genital herpes but very occasionally can cause cold sores around the mouth. See the separate leaflet called Genital herpes for more details.

The first cold sore often occurs in childhood. The virus infects through the moist inner skin that lines the mouth. It is commonly passed on by skin contact such as kisses from a family member who has a cold sore. The first infection does not always cause symptoms. See the separate leaflet called Primary cold sore infection for more details.

After the first infection, the virus settles in a nearby nerve and remains there for the rest of your life. For most of the time, the virus lies dormant (inactive) and causes no symptoms. However, in some people the virus becomes active from time to time. When activated, the virus multiplies and travels down the nerve sheath to cause cold sore blisters around your mouth. Some people have cold sores often, others only now and then. It is not clear what causes the dormant virus to become active.

What triggers cold sores?

Some things that may trigger the herpes simplex virus to activate and cause a cold sore include:

- Illness. Cold sores may occur during feverish illnesses such as colds, coughs and flu.
- Menstruation. Cold sores are more common around the time of monthly periods.
- Stress or just being 'run down' for one of many reasons.
- Sunshine. Strong, direct sunlight may trigger cold sores in some people.

Cold sore symptoms



By Ben Tillman (Own work), Public domain, via Wikimedia Commons

- You may feel a tingle or an itch before the blisters appear, usually around your lips or nose. This can last several hours, or up to a day or so.
- After the tingle, one or more blisters appear which are usually sore.
 The blisters contain fluid that is full of the herpes virus. The blisters may weep and take several days to form scabs. Cold sores can be very tender and painful.

Until the cold sores have 'scabbed over' and are completely dry, the cold sore is very infectious and can be spread to other people. The scab slowly disappears over a week or so, leaving no scar. Some virus will remain dormant (inactive) in the nerve sheath, ready to cause another cold sore sometime in the future.

Are cold sores contagious?

Yes. When you have a cold sore you should not kiss anyone or allow anyone to come into skin contact with the sore. In particular, you should avoid kissing newborn babies and anyone who has a weakened immune system (an immunocompromised person). Immunocompromised people include people having oral steroids or chemotherapy for cancer, and people with conditions such as untreated HIV. Avoid oral sex until the cold sores have completely healed. When you have no symptoms – when the virus is dormant (inactive) – you are less infectious. Healthy people who already have cold sores cannot be re-infected.

Do I need any tests for cold sores?

Tests are not needed to confirm the diagnosis of cold sores. The cold sore symptoms of tingling pain followed by the typical blisters that crust around the nose and mouth are enough to make the diagnosis and treat cold sores.

Taking a sample of the blister fluid on a special viral swab can help confirm the diagnosis of HSV. A blood test can also detect the virus more reliably than a swab can. Neither of these tests is routinely available at your GP surgery. Testing might be done in people who have a poor immune system (immunocompromised people) or if a dermatologist (skin specialist) is uncertain about the diagnosis. Blood tests may be available for people with severe infections if there is a need for them during a hospital admission.

Self-care advice for cold sores

- Try not to touch or pick cold sores. Only touch cold sores when applying topical creams.
- Creams, gels and other topical treatments should be dabbed on the cold sores rather than rubbed in. This is to minimise damage to the blisters which may spread the virus around, or cause more pain by breaking the blisters or scabs.
- Wash your hands thoroughly with soap and water after touching cold sores and after applying creams to them.

- If you find that sunlight triggers your cold sores, try using sunscreen lip balm (SPF 15 or more) before going out into bright sunlight. This has been found to prevent some bouts of cold sores in some people. Do not share items like lip balms with other people if you have cold sores. Pots of sunscreen lip balm may be less convenient than lipsticks but minimise the risk of contamination of the product, if applied with a clean finger.
- Pain can be eased by painkillers such as paracetamol or ibuprofen.
- A pharmacist can advise a soothing cream or gel. Again, it is important not to share these treatments.
- There is a risk of infecting the eyes with the cold sore virus if your contact lenses become contaminated. You can prevent this with careful handwashing before handling your contact lenses. If you have disposable lenses and you suspect you have contaminated them, it is probably best to throw them away. If you have any concerns, it may be better to wear your glasses and seek advice from your doctor or optician (optometrist).

Cold sore treatment

You can buy many cold sore treatments from a pharmacy. These include:

Painkilling gels

Choline salicylate gel is available for pain control but cannot be used under the age of 16 due to the risk of Reye's syndrome.

Lidocaine is a local anaesthetic gel that can also be used to control pain.

Cold sore cream (antiviral)

Aciclovir (Zovirax®) can be bought over-the-counter (OTC) at pharmacies. This does not kill the virus but prevents the virus from multiplying. It has little effect on existing blisters but may prevent cold sores from becoming worse. The cream may provide some protection against cold sores caused by sunlight if it is used before exposure. If you use an antiviral cream as soon as symptoms start then the cold sore may not last as long as usual (one day less on average) and may be less severe. Aciclovir has to be applied five times per day for five days.

Antiviral tablets

Aciclovir is also available in tablet form. There are other oral antiviral medications too, such as valaciclovir. Oral antiviral tablets are not routinely used for the treatment of cold sores. Oral antiviral tablets may be prescribed in severe cold sore infections, in newborn babies (by paediatricians), or in people who have a poor immune system (immunocompromised people). They do have some effect in preventing further attacks and are prescribed for people who have severe attacks or who have problems with their immune system. Oral antivirals are used with the aim of stopping the virus multiplying and preventing the cold sores from becoming too severe. Severe viral infections such as a severe herpes infection can be extremely dangerous to the health of immunocompromised people.

Laser treatment

Some people have found that treatment with a type of laser beam called narrow-band light has worked well. This type of treatment is sometimes called photodynamic therapy. A machine which delivers narrow-band light can be bought from pharmacies. A number of brands are available. This is not available on the NHS.

Do I need to contact my doctor?

Usually you would not need to see your doctor if you have cold sores. With recurrent bouts of cold sores you will probably come to recognise the symptoms. You should contact your doctor if you are unsure of the diagnosis, or if the cold sores are not resolving after a week or so. If you have a poor immune system (you are an immunocompromised person) and develop possible cold sores, you should contact your doctor. You may need tests to confirm the virus, and/or oral antiviral medicines.

Further reading

- de Paula Eduardo C, Aranha AC, Simoes A, et al; Laser treatment of recurrent herpes labialis: a literature review. Lasers Med Sci. 2013 Apr 13.
- Herpes simplex oral; NICE CKS, May 2024 (UK access only)

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