CONDITION

Herpes - oral

Oral herpes is a lifelong viral infection that can cause recurring cold sores around the mouth.

WHAT IT IS
Lifelong herpes infection causing sores around the mouth

BODY SYSTEM
Skin, mouth, and nerves

MAIN SYMPTOMS
Tingling, painful blisters, ulcers, swollen gums

WHAT CAUSES IT
Herpes simplex virus infection, usually HSV-1

HOW IT IS DIAGNOSED
Examination; PCR or culture from a fresh sore

MAIN TREATMENT
Antiviral medicines and pain relief

CAN IT BE CURED?
No - virus remains in nerve cells

IS IT AN EMERGENCY?
Sometimes - eye symptoms or severe dehydration

LONG-TERM OUTLOOK
Recurrences often become less frequent over time

Overview

Oral herpes is an infection caused by the herpes simplex virus. Most oral infections are caused by herpes simplex virus type 1, called HSV-1. HSV-2 can also infect the mouth, although this is less common.

After the first infection, the virus stays inactive inside nearby nerve cells. It may later become active again and cause a cold sore. This is called a recurrence.

Many people never notice their first infection. Others develop painful sores throughout the mouth, swollen gums, fever, and difficulty eating or drinking. This first noticeable episode is sometimes called herpes gingivostomatitis.

A recurring cold sore usually appears on or near the edge of a lip. It often starts with tingling,

itching, or burning before small blisters develop. The blisters break, crust, and then heal.

Oral herpes matters because it can be painful and can spread to other people. It can occasionally cause serious problems involving the eyes, widespread areas of damaged skin, or dehydration. These problems are uncommon but need prompt medical attention.

Oral herpes is not the same as a canker sore. Canker sores are non-contagious ulcers that usually form inside the mouth and are not caused by herpes.

Symptoms

A first oral herpes episode may cause no symptoms. When symptoms do occur, they can be more widespread than later cold sores.

Possible symptoms during a first noticeable episode include:

Young children may drool or refuse drinks because their mouth hurts. The main immediate concern is dehydration, meaning the body is losing more fluid than it takes in.

A recurring cold sore usually affects a smaller area. You may notice tingling, itching, sensitivity, or burning before the sore appears. Small fluid-filled blisters then form, often in a cluster. They open and become shallow sores before crusting over.

Cold sores commonly heal within one to two weeks, although healing time is not the same for everyone. Mild swelling or tenderness may continue while the skin repairs itself.

- Fever, tiredness, or headache
- Painful, swollen, or bleeding gums
- Multiple blisters or ulcers on the lips, gums, tongue, or inside the cheeks
- Swollen glands in the neck
- Pain when swallowing
- Reduced eating or drinking

Causes and risk factors

Oral herpes is caused by direct infection with HSV-1 or, less often, HSV-2. The virus can spread through contact with an infected person's saliva, mouth, skin, or sores. Kissing and oral sex are common routes of transmission.

The chance of transmission is highest while there is tingling, blistering, weeping, or an open sore. However, the virus can sometimes be released from normal-looking skin or saliva. This is

called asymptomatic shedding.

After infection, certain factors may be linked with a recurrence. Common examples include:

These factors do not cause herpes. They may reactivate virus that is already present.

People with weakened immune systems may have larger, longer-lasting, or more frequent outbreaks. Severe eczema or other conditions that damage the skin barrier can also increase the risk of widespread herpes infection.

- Another infection or fever
- Strong sunlight on the lips
- Physical or emotional stress
- Menstruation or other hormonal changes
- Tiredness
- Injury or dental work around the mouth

Diagnosis

A healthcare professional can often recognise a typical cold sore by examining it and asking how the symptoms developed. Testing is not always needed.

If the diagnosis is unclear, a swab can be taken from a fresh blister or ulcer. A polymerase chain reaction test, usually called PCR, looks for the virus's genetic material. Viral culture can also confirm herpes, but it becomes less reliable as a sore starts to heal.

Blood tests can detect antibodies made after exposure to HSV. However, a blood test usually cannot show whether an infection is in the mouth or genitals. It also cannot reliably show when the infection happened or who it came from.

Other conditions can resemble oral herpes. These include canker sores, impetigo, allergic reactions, shingles, hand-foot-and-mouth infection, and irritation from dental appliances or biting.

Treatment and management

There is no treatment that removes herpes simplex virus from the body. Treatment aims to shorten an outbreak, reduce pain, support drinking and eating, and lower the number of recurrences when these are frequent or severe.

Antiviral medicines interfere with the virus multiplying. Options include oral medicines and, for

some cold sores, topical products applied to the skin. Oral antivirals generally work best when started during tingling or soon after a sore appears. A healthcare professional can advise whether they are suitable.

People with frequent, painful, or disruptive outbreaks may be offered ongoing suppressive antiviral treatment. This reduces recurrences while the medicine is being taken, but it does not cure the infection.

Severe infection, inability to take medicine by mouth, or infection in someone with a substantially weakened immune system may require hospital care and antiviral medicine through a vein.

Self-care during an outbreak may include:

Avoid picking blisters or crusts. Do not place aspirin directly on a sore because it can damage the tissue. Ask a pharmacist before using numbing mouth products, especially for a child, because some are unsuitable when swallowed or used incorrectly.

Antibiotics like amoxicillin or doxycycline do not treat herpes. They are only useful if a separate bacterial infection develops.

- Drinking regularly, using small sips if the mouth is sore
- Choosing cool, soft foods and avoiding foods that sting
- Using an age-appropriate pain reliever as directed on its label
- Applying a plain lip barrier to reduce cracking
- Washing your hands before and after touching the area

Complications

Dehydration is the most common significant complication of severe herpes gingivostomatitis, particularly in young children. Warning signs include very little urine, a dry mouth, unusual sleepiness, dizziness, or an inability to keep drinking.

Herpes can spread from the mouth to a finger through broken skin, causing a painful infection called herpetic whitlow. Touching a sore and then touching an eye can also spread the virus.

Herpes infection of the eye can affect the cornea, the clear front surface of the eye. This is called herpes simplex keratitis. Without prompt treatment, it may damage vision.

People with eczema can rarely develop widespread, painful herpes over areas of damaged skin. This is called eczema herpeticum and needs urgent treatment.

In people with severely weakened immune systems, herpes may become extensive or affect

internal organs. Infection involving the brain, called herpes simplex encephalitis, is rare but is a medical emergency.

HSV can also cause severe infection in a newborn. Anyone with an active cold sore should avoid kissing a newborn and should wash their hands carefully before contact.

Prevention

There is no licensed vaccine that prevents oral herpes, and it is not always possible to prevent infection. Someone can pass on HSV even when no sore is visible.

You can reduce the risk of spreading it. From the first tingling until the skin has completely healed:

A cold sore on the mouth can transmit HSV-1 to a partner's genitals during oral sex. Barrier methods, such as condoms or dental dams, reduce contact but do not cover every area from which the virus may spread.

If sunlight repeatedly triggers your cold sores, using lip protection with sunscreen may help reduce that trigger. It cannot prevent all recurrences.

- Avoid kissing and oral sex
- Do not share lip balm, razors, toothbrushes, cups, or eating utensils
- Wash your hands after touching your mouth or applying treatment
- Avoid touching your eyes
- Cover affected skin only if advised and if this does not irritate it

Living with it and what to expect

Oral herpes remains in the body for life, but this does not mean you will always have symptoms. Some people have one recognised episode and no further problems. Others have occasional cold sores.

Recurrences are usually milder and more localised than the first infection. For many people, they become less frequent over the years, although this cannot be predicted for an individual.

A typical cold sore heals without scarring. Picking it or developing a bacterial infection may delay healing. Keeping track of possible triggers can help you recognise patterns, but outbreaks may also happen without an obvious cause.

Cold sores can affect confidence, social contact, eating, and sleep while they are active.

Planning for early treatment may make recurring outbreaks easier to manage. If outbreaks are frequent or interfere with daily life, routine medical follow-up can help you discuss antiviral like acyclovir or oseltamivir options.

Having oral HSV does not mean you have been recently exposed. Symptoms can first appear months or years after infection, so a cold sore cannot show when or from whom HSV was acquired.

When to get medical help

Seek emergency medical care for:

Get urgent medical advice if sores are spreading quickly, involve large areas of eczema, or occur while your immune system is severely weakened.

Arrange routine medical care if:

- Eye pain, marked redness, sensitivity to light, or a change in vision
- Confusion, a seizure, severe drowsiness, or a severe headache with neck stiffness
- Signs of severe dehydration, such as minimal urine, fainting, or inability to drink
- Blisters, fever, poor feeding, or unusual sleepiness in a newborn
- You are unsure whether a sore is herpes
- A first episode is very painful or makes eating difficult
- A sore is not beginning to heal after about 10 days
- Outbreaks are frequent, severe, or affecting daily life
- There is increasing redness, swelling, pus, or worsening pain
- You want advice about reducing transmission to a partner

Common questions

Is oral herpes the same as a cold sore?

A cold sore is the usual form of recurring oral herpes. The first noticeable infection can be more widespread, with sores inside the mouth and swollen gums.

Is oral herpes the same as a canker sore?

No. Canker sores are non-contagious ulcers that usually occur inside the lips or cheeks. Oral herpes is caused by HSV and often affects the lip border, although a first infection may also

cause sores inside the mouth.

Can I spread oral herpes without a visible sore?

Yes. HSV can sometimes be released from normal-looking skin or saliva. Transmission is more likely when tingling, blisters, open sores, or crusting are present.

Can oral herpes cause genital herpes?

Yes. HSV-1 can spread from the mouth to the genitals during oral sex. Genital HSV-1 often recurs less frequently than genital HSV-2, but it remains a lifelong infection.

How long is a cold sore contagious?

The risk begins with early tingling and remains high until the sore has completely healed. There is no exact day when transmission becomes impossible because asymptomatic shedding can occur.

Will oral herpes ever go away completely?

The visible sore usually heals, but the virus stays inactive in nerve cells and may reactivate. Antiviral treatment can reduce symptoms and recurrences but does not remove the virus.

Sources

- World Health Organization. Herpes simplex virus . Fact sheet.
- NHS. Cold sores . Health A to Z.
- American Academy of Dermatology Association. Cold sores: Diagnosis and treatment .
- Centers for Disease Control and Prevention. Sexually Transmitted Infections Treatment Guidelines, 2021: Herpes .
- Royal Children's Hospital Melbourne. Clinical Practice Guidelines: HSV Gingivostomatitis .
- Arduino PG, Porter SR. "Herpes Simplex Virus Type 1 infection: overview on relevant clinico-pathological features." Journal of Oral Pathology & Medicine . 2008;37(2):107-121.