Introduction
Cold sores are blisters on and around the lips. They are annoying and sometimes painful. Sometimes they are called fever blisters. Eight out of every 10 people have the virus that causes cold sores. There is no cure for it.

This reference summary explains cold sores. It discusses signs, stages, infection, outbreaks, treatment, self-care and prevention.

Signs & Stages
Cold sores are fluid-filled red blisters on the lips and skin around them. They can also appear in and around the nose and on the cheeks.

Some people do not find cold sores painful. They just notice a tingle or an itch. Others find them painful, especially when they break open. This is called “weeping” because the fluid inside leaks out.

Cold sores last 7 to 12 days. Blisters form, then break open and ooze. Finally, a yellow, crusty scab forms. When the scab falls off, there is no noticeable scar.

Cold sores go through 5 stages:
1. The tingling stage
2. The blister stage
3. The weeping stage
4. The scabbing stage
5. The healing stage

The tingling stage is also called the prodrome stage. It lasts 1 to 2 days. There is a tingling sensation where the cold sore is going to form. This spot of skin may swell, become red and feel sore.
The blister stage lasts 2 days. A fluid-filled blister appears and may form clusters of larger blisters.

The weeping stage is also called the ulcer stage. It only lasts 1 day. The blisters break open and leave a reddish sore that becomes gray. The weeping stage is the most contagious stage because the oozing liquid contains millions of infectious viruses. Contagious means viruses can spread easily from one person to another.

During the scabbing stage, the cold sore scabs over for 2 to 3 days. The scab usually breaks open and bleeds. It may also itch and burn. A second scab forms where the first one broke open. This scab is smaller. It flakes off and another smaller scab may form. Eventually the cold sore disappears. It usually does not leave a scar.

**Infection**

Cold sores are caused by a virus called Herpes simplex virus type 1, or HSV-1. A virus is a very small organism that multiplies fast after invading cells.

HSV-1 is from the same family of viruses that causes genital herpes. Genital herpes is usually caused by Herpes simplex type 2 virus, or HSV-2. These viruses are highly contagious.

People get cold sores from other people, usually from parents and family members. About 8 out of every 10 people have the cold sore virus, HSV-1. The cold sore virus affects each person differently. Some people have outbreaks very often and others don’t. For some they are painful while others only notice tingling or itching.

Cold sores are contagious at all stages. However, they are the most contagious when they break open and fluid comes out.

Cold sores can spread to other people through kissing. They can also spread through sharing things that touch the lips and skin around them, such as towels or utensils.
Even though HSV-1 mainly affects the mouth area, it can be transmitted to other parts of the body. When it infects the fingers it is called herpetic whitlow. HSV-1 can cause blindness if it infects the eyes. It can also infect the genital area, just as HSV-2 can infect the face.

The first time a person is infected with HSV-1, he or she may have a fever but no cold sores. The body creates antibodies to fight the virus. Antibodies are special chemicals that control the virus by killing most of its cells.

Unfortunately, the cold sore virus usually hides in nerve cells. This makes it impossible for antibodies to totally kill the virus.

The virus “sleeps” in the nerve cells. While “asleep,” the virus is called dormant. When it “wakes up,” it travels through the nerve to the skin’s surface. About \( \frac{1}{3} \) of all people who get cold sores usually have them in the same spot each time.

**Recurrent Outbreaks**

The herpes virus is an opportunistic virus. It waits until the immune system is busy fighting other illnesses. That is when it “wakes up” and causes cold sores.

People who have a lot of outbreaks may notice they happen when the body is stressed. Many things can cause stress, such as:

- A cold or an infection
- Long exposure to sunlight
- Menstrual periods
- Having a tooth removed
- Emotional stress
- Digestive problems
- Traveler’s diarrhea
- Injury to the lips

People who get cold sores often should be aware of stress associated with them. When under stress, be alert for tingling or itching. The best time to treat outbreaks is during the tingling prodrome stage.
Diagnosis
People who get cold sores usually recognize them by the way they look and where they are located. If needed, a blood test can show whether a person is infected with HSV-1.

Canker sores are often confused with cold sores. The main difference between them is that canker sores develop inside the mouth. Cold sores are not found inside the mouth. Canker sores are not contagious.

Treatment
There is no cure for the herpes simplex virus. Once you have it, it stays in your body. You cannot totally prevent cold sore outbreaks. However, you can cut down how often they appear and how long they last each time.

For most people, cold sores last 7 to 12 days. However, an immune system disorder such as HIV/AIDS can make HSV-1 more dangerous. You should see your doctor if you have HSV-1 and an immune system disease.

Your doctor may prescribe an antiviral medication. These are most effective if used before the blisters form, as soon as you notice tingling. Examples of common antiviral medications include:

- Zovirax®, available as pills or ointment
- Denavir®, an ointment
- Famvir® and Valtrex®, available as pills

Antiviral medication limits the virus’s ability to grow. This allows the body to fight it faster.

Self-Care
Never squeeze cold sore blisters. In addition, do not peel the scab before it is ready to flake off.

You can put ice on the blisters if they are painful. There are also over-the-counter creams that moisten the blisters and make them less painful.
You can use these over-the-counter pain relievers to fight inflammation.

- Acetaminophen (such as Tylenol®)
- Ibuprofen (such as Advil® or Motrin®)
- Aspirin®, but don't give aspirin to children. Aspirin can rarely cause a fatal disorder known as Reye's syndrome in children.

### Prevention

This section discusses how you can prevent:

- The recurrence of cold sores
- The spread of the herpes simplex virus to other parts of your body
- Infecting other people

One way to prevent cold sores is to prevent diseases such as cold and flu. A healthy lifestyle cuts down on the number of diseases and infections a person may get. Healthy living includes a balanced diet, exercise, sleeping well and avoiding emotional stress.

Some people associate cold sores with long exposure to the sun. You can prevent cold sores caused by sun exposure by using sun block. It should be applied to your lips and any areas affected by cold sores.

Cold sores can be associated with dry or injured lips. In this case, use lip moisturizer as soon as you notice your lips are dry or injured.

An over-the-counter amino acid supplement called lysine works for many people who get cold sores often. By taking a daily pill, many people with HSV-1 experience almost no outbreaks. Check with your doctor to see if lysine supplements are right for you.

To prevent spreading the cold sore virus to other parts of your body, wash your hands after touching or putting ointment on your cold sores. The eyes and genital area can catch the virus more easily than other parts of the body.
To prevent infecting other people:

- Avoid kissing people while you have blisters.
- Wash your hands before touching other people when you have cold sores.
- Do not share utensils or razors with others.
- Do not share towels when you have cold sores.

People who have a weak immune system cannot fight herpes very well. Such people include those with AIDS or who are on chemotherapy. A herpes infection could be fatal for them so be extra careful around them!

People with eczema may have open sores. Avoid touching their skin unless you have just thoroughly washed your hands.

**Summary**

Cold sores are very common. They seem to appear at the worst times: during a vacation when sunbathing or traveling to new locations; before weddings and other celebrations; and during sickness when the body is busy fighting a cold or an infection.

A virus causes cold sores. Once the body is infected, the virus stays in the body. It “sleeps” in nerve cells and usually “wakes up” when the body is stressed.

There is no cure for cold sores. They usually heal on their own within 10 days. Antiviral medications can speed healing. However, the medication is most effective if used in the early stages of an outbreak.

The herpes virus that causes cold sores is very contagious. It can spread to other parts of your body. It can spread to others through skin contact and by sharing towels or utensils.

A healthy lifestyle can reduce the frequency of outbreaks. Using sun block before being in the sun and lip balm for dry lips helps many people prevent outbreaks. Lysine, an amino acid supplement, works for some.

For people with a weak immune system, the herpes virus could be fatal. It is important to wash your hands often during an outbreak to prevent spreading the virus.