Figure 1 – This is a typical example of a single aphthous ulcer or “canker sore”. Such sores are not caused by herpes virus infection.

Figure 2 – It is not uncommon for some people to have two or more aphthous ulcers at the same time. Four of these sores are seen on the side of this patient's tongue.

Figure 3 – This patient has an uncommon form of aphthous ulcers called “herpetiform aphthae”, because the sores look similar to a herpes virus infection. Like other aphthous ulcers, these sores are not caused by a viral infection.

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What are recurrent aphthous ulcerations?

Recurrent aphthous ulcerations (“canker sores”) are a relatively common condition that affects the lining tissues of the mouth. In the typical form of aphthous ulcerations, patients develop from one to five very painful sores that usually last ten to fourteen days. These sores can occur anywhere in the mouth except on the front part of the roof of the mouth (hard palate) or on the gum tissue that is right next to the teeth. Some patients indicate that they can feel a tingling sensation in an area where one of the sores will develop. The frequency of attacks can be quite variable, ranging from as often as once per month up to as rare as once every few years.

Who gets recurrent aphthous ulcerations?

Anyone can develop these lesions. They can develop at any age and in either sex. They seem to affect young adults a bit more commonly than most other groups, and women seem to be affected slightly more often than men.

What causes recurrent aphthous ulcerations? Can I spread this disease to my family and friends?

Recurrent aphthous ulcerations are not a contagious disease, in other words, it cannot be passed from one person to another. It is frequently confused with herpes, however all of the research done so far has indicated that this is not related to any viral, bacterial or fungal infection. Probably the best explanation as to what is happening in recurrent aphthous ulcerations is that they are a type of unusual allergic reaction. In the case of recurrent aphthous ulcerations, however, instead of being allergic to, say, strawberries or seafood, the body is sort of allergic to itself. In other words, the immune system, which normally protects the body by destroying invading organisms, gets confused and actually starts attacking the lining tissues of the body itself. We don't know what triggers this unusual reaction, although some patients can relate the onset of the lesions to such things as stress, minor injury to the lining of the mouth, or the menstrual cycle.

How do doctors diagnose recurrent aphthous ulcerations?

Recurrent aphthous ulcerations can typically be diagnosed on the basis of the appearance of the sores, the location of the sores, and the fact that there are multiple episodes. In most cases, biopsies, blood tests and cultures for microorganisms are not helpful. There are a few variations of aphthous ulcers that are worth mentioning, although these are relatively uncommon or even rare.

- **Major aphthous ulcerations:** Patients with this condition have much larger sores than usual, and these are almost always present in the mouth.
- **Herpetiform ulcerations:** These patients develop dozens, or even hundreds, of very small aphthous ulcerations that clinically resemble a herpes infection. Because of the location of the lesions and their recurrent pattern, we can easily rule out a diagnosis of herpes however.
- **Behcet's syndrome:** In this rare condition, patients not only develop mouth sores that are identical to recurrent aphthous ulcerations, but they also suffer from eye problems and similar sores in the genital area.

How are recurrent aphthous ulcerations treated?

Because this is a problem associated with an overactive immune system, we use medications that tend to suppress the immune reaction. These medications are similar to cortisone, only they are much more powerful. In order to avoid the side effects of cortisone, the medications are applied only to areas where the recurrent aphthous ulcerations are developing. The medication should be applied as a thin film at least four or five times per day at the earliest sign of the lesion development. If this is done, the lesions can usually either be prevented completely or their healing time can be reduced significantly. Some patients may want to alternate the use of the cortisone medication with a protective medication such as Zilactin.

Can aphthous ulcerations be cured?

No. (at least not in the sense that a strep throat, for example, can be “cured” by a shot of penicillin). Usually the lesions can be controlled, however, by using appropriate medication. Often the frequency of attacks can be reduced once the cycle of the ulcerations has been interrupted by the treatment. In addition, some patients seem to have fewer problems with recurrences as they grow older. In most cases, this problem is a nuisance that can be controlled so that it doesn’t interfere with everyday life.