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## Aphthous ulcers

### What are aphthous ulcers?

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Aphthous ulcers (aphthae, or canker sores) are ulcers that form on the mucous membranes of the mouth or genitals. The most common type of an aphthous ulcer is recurrent minor aphthous ulcer (recurrent aphthous stomatitis).

Aphthous ulcers are typically recurrent round or oval sores or ulcers that occur inside the mouth on areas where the skin is not tightly bound to the underlying bone (e.g. on the inside of the lips and cheeks or underneath the tongue). They may also appear on the genitals (Lipschutz ulcer), particularly if there is an associated condition such as [Behcet disease](#) or [HIV](#).

#### Aphthous ulceration



### What causes aphthous ulcers?

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The exact reason why aphthous ulcers develop is not yet clearly defined. Current thinking is that the immune system has been disturbed by some external factor and this results in the development of aphthous ulcers. Also, approximately 40% of people who get ulcers have a family history of aphthous ulcers.

Some factors that seem to trigger outbreaks of ulcers include:

- Emotional stress and lack of sleep
- Mechanical trauma, for example self-inflicted bite
- Nutritional deficiencies, particularly vitamins B, iron, and folic acid
- Certain foods including chocolate
- Certain toothpastes
- Menstrual cycle

Aphthous ulcers are commonly present in certain medical conditions. Many of these conditions are associated with impaired immune systems and include Behcet disease, HIV/AIDS, gluten-sensitive enteropathy, Crohn disease and inflammatory bowel disease.

### Who is at risk of aphthous ulcers?

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Anyone can get aphthous ulcers; 20% of the population have them at least occasionally. They usually first appear in childhood or adolescence, and more commonly in females than males.

## What are the signs and symptoms of aphthous ulcers?

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There are basically 3 types of aphthous ulcers:

- Recurrent minor aphthous ulcers, which occur in up to 80% of aphthous ulcer cases. They are usually less than 5mm in diameter and heal within 1–2 weeks.
- Major aphthous ulcers, which are large ulcers (more than 10mm) that take weeks or months to heal and do so with scarring.
- Herpetiform ulcers, which are multiple pinpoint ulcers that heal within a month. These are most commonly on the tongue.

Recurrent minor aphthous ulcers usually begin as a round yellowish elevated spot surrounded by a red halo. This then breaks down into an ulcer, which is covered with a loosely attached white or greyish membrane. Surrounding tissue is healthy and unaffected. Sometimes these ulcers can be painful, particularly if they are irritated by movement or from eating certain types of food.

People may experience a single ulcer or multiple ulcers. Multiple ulcers tend to be widely distributed throughout a person's mouth.

## What is the treatment for aphthous ulcers?

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There is no cure for aphthous ulcers. The main goal of treatment is to lessen the pain and discomfort they cause and promote healing of the ulcers. Most recurrent minor aphthous ulcers heal within 1–2 weeks without any treatment. The following remedies and precautions may help.

- Protective pastes that form a barrier over the ulcer so that exposure to irritating substances is reduced.
- Where available, superficial tissue cauterization using Debacterol® or use a silver nitrate stick
- Numbing agents such as the [local anaesthetics](#) benzocaine and lignocaine (lidocaine) to help reduce pain.
- Antibacterial mouthwashes to reduce secondary infection.
- Avoid products or food that you know trigger or exacerbate ulcers.
- Improve diet or take dietary supplements of vitamins or minerals that you may be lacking in.
- Reduce stress!
- Prescription [topical corticosteroids](#) such as Kenalog in Orabase® or Oracort® are sometimes used in very painful and hard to heal ulcers.
- Calcineurin inhibitors such as topical [pimecrolimus](#) or [tacrolimus](#).
- In severe cases, oral [colchicine](#), [dapson](#)e and perhaps [thalidomide](#).

### Related information

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#### References:

#### On DermNet NZ:

- [Erosions and ulcers](#)

#### Other websites:

- [Aphthous ulcers](#) – emedicine, the online textbook

#### Books:

See the [DermNet NZ bookstore](#)

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DermNet does not provide an on-line consultation service.  
If you have any concerns with your skin or its treatment, see a [dermatologist](#) for advice.

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