

# Various Remedies for Recurrent Aphthous Ulcer- A Review

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## Abstract

Recurrent aphthous ulcers are common painful mucosal conditions affecting the oral cavity. Despite their high prevalence, etiopathogenesis remains unclear. It is usually painful and associated with redness, swelling, and occasional bleeding from the affected area(s). Manifestation of the disease can range from mild to severe and, in extreme cases, even hinder a person's ability to ingest foods, thereby making the person susceptible to malnutrition. This review article summarizes the clinical presentation, diagnostic criteria, and recent trends in the management of recurrent aphthous stomatitis.

**Keywords:** recurrent aphthous stomatitis, Diagnosis, stress ulcers.

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## INTRODUCTION

Aphthous ulcers are ulcers that form on the mucous membranes. They are also called aphthae, aphthosis, aphthous stomatitis and canker sores. Aphthous ulcers are typically recurrent round or oval sores or ulcers inside the mouth on areas where the skin is not tightly bound to the underlying bone, such as on the inside of the lips and cheeks or underneath the tongue. They can also affect the genitalia in males and females. Recurrent aphthous ulcers are mostly a minor nuisance, but they are associated with significant health problems in some people.

## CAUSES

The exact reason why aphthous ulcers develop is not yet clearly defined. Approximately 40% of people who get aphthous ulcers have a family history of the same. Current thinking is that the immune system is disturbed by some external factor and reacts abnormally against a protein in mucosal tissue.

In some cases the ulcers are related to other factors or diseases. These include:

Injury - such as badly fitting dentures, a graze from a harsh toothbrush, etc.

Changes in hormone levels. Some women find that mouth ulcers occur just before their period. In some women, the ulcers only develop after the menopause.

Some ex-smokers find they develop ulcers only after stopping smoking.

A lack of iron, or a lack of certain vitamins (such as vitamin B12 and folic acid) may be a factor in some cases. Rarely, a food allergy may be the cause.

Mouth ulcers run in some families. So, a genetic factor may play a part in some cases. Stress or anxiety is said to trigger aphthous mouth ulcers in some people. Some medications can cause mouth ulcers. Examples of medicines that can cause mouth ulcers are: nicorandil, anti-inflammatory medicines (eg, ibuprofen) and oral nicotine replacement therapy. Mouth ulcers are more common in people with Crohn's disease, coeliac disease, HIV infection, and Behçet's disease. However, these ulcers are not the aphthous type.

## DIAGNOSIS

Diagnosis is mostly based on the clinical appearance and the medical history. The most important diagnostic feature is a history of recurrent, self-healing ulcers at fairly regular intervals. Although there are many causes of oral ulceration, recurrent oral ulceration has relatively few causes, most commonly aphthous stomatitis, but rarely Behçet's disease, erythema multiforme, ulceration associated with gastrointestinal disease, and recurrent intra-oral herpes simplex infection. A systemic cause is more likely in adults who suddenly develop recurrent oral ulceration with no prior history.

## TREATMENT

The first line therapy for aphthous stomatitis is topical agents rather than systemic medication. Topical corticosteroids are the mainstay treatment for aphthous stomatitis. Systemic treatment is usually reserved for severe disease due to the risk of adverse side effects associated with many of these agents. A systematic review found that no single systemic intervention was found to be effective. Good oral hygiene is also important to prevent secondary infection of the ulcers. Amlexanox applied topically is highly-studied and effective in healing; less conclusive research suggests that vitamin B12 supplementation and the avoidance of sodium lauryl sulfate in toothpaste may prevent recurrence. Surgical excision of aphthous ulcers has been described, but it is an ineffective and inappropriate treatment. Silver nitrate has also been used as a chemical cauterant. Apart from the mainstream approaches detailed above, there are numerous treatments of unproven effectiveness, ranging from herbal remedies to otherwise alternative treatments, including aloe vera, myrtus communis, Rosa damascena, zinc sulfate, nicotine, polio virus vaccine and prostaglandin E2.

## NATURAL METHODS

Some nutritional supplements and lifestyle changes may be helpful in treating or preventing canker sores. There is no proven evidence for these but people have reported relief with the following:

**Vitamins**

B vitamins ... B1, B2 and B6. Take a daily B complex. *Lactobacillus acidophilus*: (Chew four *Lactobacillus* tablets three times per day to reduce soreness) Some people with recurrent canker sores have been reported to respond to *Lactobacillus acidophilus* and *Lactobacillus bulgaricus*.

**Herbs**

*Aloe* (*Aloe vera*): 1–3 tablespoons of *aloe vera* juice used as a mouthwash, then swallowed, three times daily.

*Licorice* (DGL) (from *Glycyrrhiza glabra*): Combine 200 mg of powdered DGL and 200 ml of warm water swished in the mouth and then spit out; continue each morning and evening for one week.

*Chamomile* (*Matricaria recutita*): A diluted tincture or strong tea made from chamomile flowers can be swished in the mouth three to four times per day.

*Echinacea* (*Echinacea purpurea*, *E. angustifolia*, *E. pallida*): 4 ml of liquid *echinacea* can be mixed with warm water and swished in the mouth for two to three minutes, then swallowed; this can be repeated three times per day.

*Myrrh* (*Commiphora molmol*): Mix 200–300 mg of herbal extract or 4 ml of myrrh tincture with warm water and swish it in the mouth two to three times per day.

**Lifestyle changes**

Dental work: Irritation from poor-fitting dentures, rough fillings, or braces can aggravate canker sores and should be treated by a dentist.

*Sodium lauryl sulfate* (SLS): SLS, a component of most toothpastes, is a potential cause of canker sores. SLS seems to attack the upper layers of the mucous membrane. Try an SLS-free toothpaste for several months to see if such a change helps. Some choices include: Retardant by Rowpar, Biotene "Dry Mouth Toothpaste" by Laclede, Peri-Gel by ZilaRembrandt, NaturalFirst Teeth by Laclede. One version of Tom's Toothpaste does not have SLS.

Good oral hygiene: Flossing teeth daily and brushing teeth and gums for at least two minutes two to three times daily may help prevent canker sores.

Dietary changes Food sensitivities or allergies may aggravate canker sores. These are hard to figure out and you need to try various diet changes to see if something you are eating is aggravating the problem.

In a 1990 study, oranges, tomatoes, nuts, eggplant, tea and cola were the dietary allergens found to trigger ulcer formation. Other foods anecdotally associated with aphthous ulcers are pineapple and cinnamon oil or flavoring.

**HOME REMEDIES**

*Saltwater Solution and Sodium Bicarbonate*- Mix 1 teaspoon salt with one cup water. Swish the solution in your mouth for 30 seconds, then spit the solution out. In addition to salt, 1/2 teaspoon baking soda (sodium bicarbonate) may be added to the saline solution. Create a paste by mixing baking soda with small drops of water until a thick consistency results. Use this paste to cover the ulcer, which will help relieve pain. These methods may be repeated as often as needed.

**Hydrogen Peroxide Solution**- Mix one part hydrogen peroxide with one part water. Use a cotton swab to dab the solution directly onto the ulcer. Do not swallow the solution. Hydrogen peroxide is an antiseptic that will help reduce the amount of bacteria in the mouth.

**Milk of Magnesia**- Used frequently as an aide to relieve constipation and as an antacid, milk of magnesia is a liquid suspension of magnesium hydroxide. Dab milk of magnesia directly onto the ulcer with a cotton swab, three to four times a day. This method is recommended after using the hydrogen peroxide solution. Milk of magnesia will help reduce the pain and help speed the healing process.

**Liquid Antihistamine**- Diphenhydramine (Benadryl) may be used as an oral rinse by mixing one part milk of magnesia and one part diphenhydramine together. Rinse with the solution for one minute, then fully spit out the solution. Take care to avoid swallowing this mixture.

**500mg L-Lysine**- Taken one to three times daily has shown to be beneficial.

Over the counter oral care products and mouth rinse-Products such as gels, paste, and rinses that are specifically marketed for sores may provide pain relief and help speed the healing process.

**HOMEOPATHIC REMEDIES**

**Arsenicum album**: A person who breaks out in burning, painful mouth sores, and also feels anxious and tired, is likely to benefit from this remedy. Hot drinks often ease the pain, and the person feels best when keeping warm. People who need this remedy often have unhealthy, easily-bleeding gums.

**Borax**: This remedy is often helpful when canker sores feel hot and sensitive. Acidic foods-especially citrus fruits-may be irritating. Sores may break out on the inside of the cheeks, on the gums, and on the tongue. The person produces profuse saliva, yet still feels dry inside the mouth. People needing Borax are often very sensitive to noise and inclined toward motion sickness.

**Calcarea carbonica**: For infants and small children have recurring canker sores. A child who needs this remedy may also have head-sweats during sleep, and be slow to teethe or learn to walk. *Calcarea carbonica* may help with canker sores in adults who are chilly, stout, and easily fatigued

**Hepar sulphuris** : If a person develops painful mouth sores that become infected-with pus formation, extreme sensitivity, and aggravation from cold drinks-this remedy may be indicated. A person needing Hepar sulph often feels extremely chilly, vulnerable, and oversensitive.

**Mercurius solubilis**: Bleeding gums, a swollen coated tongue, and offensive breath are seen along with canker sores. The painful, burning sores feel worse at night, and salivation is profuse, with drooling during sleep. The person tends to sweat at night and is very sensitive to any change in temperature.

**Natrum muriaticum**: The mouth feels dry, and the tongue may have a tingling feeling. People who need this remedy often are troubled by cold sores around the corners of the mouth or chin, and have chapped or cracking lips. A craving for salt, strong thirst and a tendency to feel worse from being in the sun are other indications for Natrum muriaticum.

**Nux vomica**: The patient may break out in canker sores after overindulging in sweets, strong spicy foods, stimulants, or alcoholic beverages. Irritability, impatience, and a general chilliness are often seen when this remedy is needed.

**Sulphur**: This remedy may be helpful for sores that are painful, red and inflamed, with burning pain that is worse from warm drinks and aggravated by heat of any kind. The mouth may have a bitter taste, and the gums can be swollen and throbbing. A person who needs this remedy often has reddish lips and mucous membranes, and a tendency toward itching and skin irritations.

#### CONCLUSION

In conclusion, due to the unknown etiology of RAS most of the treatment is therapeutic. Recurrent aphthous stomatitis is a very common, recurrent painful ulceration occurring in the oral cavity. Literature shows that aphthous ulcers are best treated with 5% Amlexanox as it decreases healing time and pain and prevents recurrences if applied in the prodromal stage. Treatment strategies must be directed toward providing symptomatic relief by reducing pain, increasing the duration of ulcer-free periods, and

accelerating ulcer healing. The effectiveness of treatment, however, is not clinically significant since pain relief and healing time is accelerated by only 1.3 and 1.6 days respectively and since a vehicle also reduces pain. The effectiveness of prevention showed statistically significant results; however, diagnosis of the prodromal stage is subjective, while the objective thermographic imaging is impractical and thus not clinically utilizable. The etiopathogenesis of this disease is yet unclear.

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