9. Mouth and Throat Problems

Figuring out the cause

There are a number of causes of mouth and throat problems, including infections, antiretroviral drugs and other medications, nutritional issues, oral cancer or other medical conditions and poor dental hygiene. A trip to a doctor or dentist is needed to determine the cause. Developing a treatment plan will depend on the specific problem. Below we discuss common issues such as infections, canker sores, dry mouth and dental problems. Most of the time, once the underlying issue is resolved, the mouth problem clears.

Note that changes in the mouth can be a sign of a rare but serious allergic reaction to a drug. The reaction, called Stevens-Johnson syndrome, usually develops within two weeks of starting a new drug, including some antiretroviral drugs. This reaction results in rash, fever, nausea and other allergy-like symptoms accompanied by tingling, inflammation and blisters in the nose or mouth or on the lips. This reaction is very serious and potentially fatal. The section Rash and Other Problems of the Skin, Hair and Nails has additional information on this reaction. A person experiencing these symptoms should seek medical care right away.

Infections

In people with HIV who are not on antiretroviral therapy, mouth problems — and more specifically mouth ulcers — can be a sign of a weakening immune system that has left them vulnerable to an opportunistic infection or other condition. Opportunistic infections and conditions that can affect the mouth include Kaposi's sarcoma, oral and esophageal candidiasis (commonly called thrush), hairy leukoplakia and mouth or throat ulcers caused by herpes simplex or cytomegalovirus (CMV). More rarely, mouth lesions can be caused by Mycobacterium avium complex (MAC) and oral fungal lesions can be associated with histoplasmosis, geotrichosis or cryptococcus.

People with these infections require immediate attention and need to start antiretroviral therapy. Antiretroviral therapy allows the immune system to rebuild itself, at least partially, resulting in a dramatic decrease in the risk of these infections.

Other mouth and throat infections and conditions can occur in people with HIV regardless of CD4 count. These include herpes simplex, which causes painful cold sores on the lip or ulcers on the palate, and herpes zoster, which is the cause of chicken pox and shingles. Shingles can cause pain and multiple lesions on one side of the mouth, with the mouth pain lingering long after the initial lesions have healed.

Human papilloma virus (HPV, the cause of warts), bacteria — either an overgrowth of bacteria normally found in the mouth or newly introduced bacteria — and lymphoma can also cause mouth and throat conditions. Some
Sexually transmitted infections, including chlamydia, gonorrhea and syphilis, can also infect the mouth or throat and produce sore throat, tonsillitis or oral ulcers. Some of these lesions, especially with primary syphilis, are not painful, making them easy to miss. Proper treatment of such infections or conditions is key to clearing up these mouth or throat problems.

**Canker sores**

Mouth sores such as canker sores (also called aphthous ulcers) are common and usually form on the soft pinkish-red tissue inside the lips and cheeks and on the bottom or sides of the tongue. It is thought that the hyperactivity of the immune system in HIV disease can contribute to the development of these painful sores. Antiretroviral treatment counters this hyperactivity, so very severe forms of canker sores are less common today than in the past. It can be helpful for people who are experiencing recurrent, severe canker sores and who are not on antiretroviral therapy to begin such treatment. The antiretroviral drug saquinavir (Invirase) can cause mouth ulcers, but it is not commonly used nowadays.

Certain micronutrient deficiencies, specifically in iron, zinc, niacin, folate, glutathione, carnitine and vitamin B₁₂ can occur in people with HIV and can predispose them to canker sores. Regular use of a potent multivitamin mineral formula can help prevent most of these deficiencies. Glutathione deficiency can be countered with 600 mg of N-acetyl-cysteine, taken three times daily with meals. The most efficient way to boost carnitine levels is the use of acetyl-L-carnitine (500 mg, three times daily with meals). Note that this nutrient is seldom included in multivitamins. See the [appendix](#) on vitamin B₁₂ for more information about this key vitamin for people with HIV.

Consuming too many acidic foods can cause canker sores in some people. Cutting back on tomatoes and products made with them, citrus fruits and their juices, coffee, pickled products, vinegars and other acidic foods can help. Canker sores can also be caused by local injury to the mouth, such as when you accidentally bite the inside of your cheek or tongue. There may also be a genetic link since canker sores are more likely to occur in people from families where they are common. Emotional stress and lack of sleep are also known to cause canker sores. Some people find they occur more often at certain times during their menstrual cycles.

**Treating canker sores**

As a first step, many people treat canker sores simply by rinsing their mouth with salt water several times a day. The rinse is gargled in the mouth for one to two minutes then spit out before repeating one or two times. Although canker sores will usually go away on their own within a week to 10 days, topical and oral treatments are available when the sores are frequent or cause significant pain or difficulty eating. Don't be afraid to raise the issue of ongoing canker sores with your doctor.

The use of topical corticosteroid creams and gels is the most common treatment for canker sores. These work by suppressing the immune activation that contributes to the development of these lesions. Such products must be used carefully, however, since the resulting localized immune suppression can lead to an increased risk of oral infections.

As long as the sores remain, topical anesthetic sprays can be used to numb the area and lessen pain when eating or swallowing. A mouth rinse consisting of viscous lidocaine, Benadryl elixir, and nystatin can help eliminate the pain of mouth sores. This rinse is prepared by a pharmacist. An opiate painkiller is sometimes added if the ulcers are particularly painful. If the lesions are only in the mouth cavity, this rinse can be swished and gargled for the two minutes, then spit out. If the lesions extend down into the throat, it can be used as a “swish and swallow” agent, rinsing it around the mouth for a couple of minutes and then swallowing it.

Dexamethasone, a corticosteroid, can also be added to the mixture. But before treatment with dexamethasone is begun, it is important to make sure the lesions are not caused by herpes viruses or other infections that could worsen with use of a steroid agent. If dexamethasone is added to the rinse, it is better not to swallow the mixture but to spit it out after the two-minute gargle. This will avoid the possible immune suppression that such a steroid agent could induce.

Another rinse sometimes used is called Miles mixture. It consists of hydrocortisone, nystatin and tetracycline. This mixture should not be swallowed, since hydrocortisone also suppresses the immune system. Some doctors and
pharmacists have found that brushing the colouring agent gentian violet over mouth sores is a useful treatment. Again, it is important to be sure these sores are not caused by fungi or viruses.

For people with very serious canker sores that recur frequently, thalidomide has been shown to be effective. Thalidomide has serious side effects, including severe birth defects if taken during pregnancy. It should only be used under the close care of a doctor.

**Dry mouth**

**Decreased saliva production** resulting in dry mouth can develop as a side effect of medications, changes in salivary gland production, dehydration or radiation or chemotherapy used to treat cancers. Medications known to decrease saliva production include antidepressants, antihistamines, many opioid painkillers, foscarnet (used to treat cytomegalovirus) and the antiretroviral drug 3TC (lamivudine, also in Combivir, Kivexa and Trizivir). The chance of developing dry mouth increases with the number of different medications a person takes.

Saliva protects tooth enamel, so any decrease in saliva production can result in increased tooth decay. Normal saliva flow protects the lining of the mouth, so decreased saliva production makes mouth lesions more likely. It can also make eating and swallowing difficult.

**Treating dry mouth**

Drinking lots of water can help with dry mouth, especially if you are dehydrated. However, when there is seriously decreased saliva production, especially due to salivary gland damage caused by radiation treatment, drinking water may not help. When saliva production has been decreased by radiation or chemotherapy, the prescription medication pilocarpine can stimulate saliva production. The herb prickly ash bark has been shown to increase salivary production. It is often sold as a tincture, and a common dose is five to 10 drops placed under the tongue before meals. Herbal bitters can also help increase saliva production.

If your saliva production cannot be returned to normal, there are saliva substitutes that can be used to moisten the mouth. These products can moisten the mouth and throat for one to two hours, making swallowing or chewing much easier. One study found that Mouth Kote was the most effective of these products. It is available over the counter, has no side effects and is naturally sweetened with xylitol. There are also chewing gums available that can help to increase saliva production and toothpastes for people who have dry mouth.

Dentists usually recommend the use of topical fluorides and very careful dental hygiene to reduce the development of cavities in people with long-term saliva deficiency. Moistening food is also helpful for those with dry mouth.

**Dental problems, periodontal disease and gingivitis**

Some people with HIV may develop dental problems, including periodontal disease (inflammation in the tissues surrounding the teeth), gingivitis (inflammation of the gums, indicated by a red line where the gums meet the teeth or a generalized reddening of gum tissue) and accelerated tooth decay. It is very important to prevent such problems when possible, or treat them effectively when they occur. They can worsen if left untreated, causing pain and difficulty in chewing, bad breath and bleeding or sore gums.

**Brushing** and **flossing** your teeth is an obvious step for preventing dental problems and can help with some problems such as gingivitis. However, brushing and flossing will not usually resolve severe problems. When brushing your teeth, brush every tooth surface thoroughly, as well as the tongue. If your tongue or any area around your teeth is too sore to brush with a regular toothbrush, you can use one of the disposable foam sticks available in pharmacies for cleaning these areas.

**Treating dental problems**

The first step in resolving gum and dental problems is usually a professional tooth cleaning, which removes tartar above and below the gum line. Dentists usually also recommend the use of antiseptic mouthwashes. Sometimes they also prescribe a short course of antibiotics to get rid of bacteria in the mouth.

If minor gum problems are not resolved, they can progress to more serious periodontal disease. The bone that
holds the teeth in place can be damaged, as well as the fibres that hold the gums to the root of the teeth. Symptoms of more serious periodontal disease can include bleeding gums, loose teeth, bad breath and even tooth loss. In some people, a condition called HIV periodontitis may develop. This condition involves serious inflammation, rapid deterioration of the tissues surrounding the teeth, and very rapid loss of bone around the teeth.

There are certain nutrient supplements that may be very helpful with gum and periodontal problems. These include coenzyme Q₁₀ (CoQ₁₀), bioflavonoids, vitamin C and vitamin D. CoQ₁₀ has long been used in Japan as a treatment for periodontal and gum problems with considerable success. Since levels of CoQ₁₀ can be low in people with HIV, this nutrient deficiency may be a factor in the development of periodontal problems. CoQ₁₀ supplements, in doses of 100 to 300 mg daily, may help to prevent or resolve gum and periodontal problems. Vitamin C is needed for healthy gums, and bioflavonoids such as quercetin have capillary strengthening qualities that might reduce gum bleeding. Vitamin C taken to a maximum of 2,000 mg per day, the upper tolerable limit, and quercetin taken in doses of 500 mg, twice daily, may be helpful in maintaining oral health.

**Altered taste**

**Antiretroviral drugs and other medications** can sometimes cause abnormal tastes, dry mouth or mouth lesions. Antibiotics such as clarithromycin (Biaxin), azithromycin (Zithromax, Zmax) and metronidazole (Flagyl) can cause a metallic taste or sensation in the mouth. A number of antiretroviral drugs can also cause abnormal taste, including Kaletra (lopinavir/ritonavir), ritonavir (Norvir) and indinavir (Crixivan). These changes may diminish over time, or they can last for weeks or months even after the drug is stopped.

If altered taste is a problem, try the following:

- Use plastic utensils to decrease a metallic taste.
- Use sugar-free gum and candies to cover up a bitter taste.
- Talk to your pharmacist about tips to deal with medicines that alter taste.

**Tips for dealing with painful chewing**

The mouth and throat problems described in this section can cause painful chewing or difficulty swallowing. Here are some practical tips that can help you to adjust your diet if you experience pain when eating, drinking or swallowing:

- Try foods that are soft and smooth in texture; they are easier to eat. Remember that you can mash or blend many foods, even if that’s not how you would normally eat them. A food processor can give almost any food a smooth consistency. Commercial baby food is already well blended and comes in a wide variety. You can make an easy-to-drink breakfast or snack by blending a mixture of non-acidic fruits with milk and protein powder.
- Moisten foods. Add gravies or sauces to food before eating, or mix them into a soup base. Soak breads and cookies in liquids before you eat them. Take sips of a beverage with every bite of food.
- Avoid citrus fruits, tomato products, pickles, coffee and vinegars because their acidity can irritate mouth lesions.
- Avoid highly seasoned or peppery foods.
- Avoid carbonated beverages if they irritate the mouth or throat.
- Avoid foods that are hard or salty, such as certain raw fruit and vegetables, chips, popcorn or salted nuts.
- Avoid foods that stick to your mouth, such as peanut butter.
- Avoid hot foods and liquids. Room-temperature or cold foods and liquids are often less irritating.
- Use a straw to drink liquids.
- Try to avoid smoking and alcohol since both irritate tissues in the mouth.
- Limit or avoid sweets if thrush (Candidiasis) is a problem, as this fungus thrives on sugar. If you do consume sweets, clean your mouth well afterwards.
Disclaimer

Decisions about particular medical treatments should always be made in consultation with a qualified medical practitioner knowledgeable about HIV- and hepatitis C-related illness and the treatments in question.

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