Oral Lichen Planus

What is oral lichen planus?
Oral lichen planus (OLP) is a common chronic inflammatory condition of the mouth that occasionally may affect the skin and genital areas. Many patients experience increased “sensitivity” and find that they cannot tolerate crunchy, spicy, acidic, or strongly flavored foods and drinks; mouth pain at rest is far less common. OLP usually presents as white lacey areas or striations that most commonly affect the inner cheeks and tongue on both sides often symmetrically. Very often, OLP presents only as bright red, peeling gums that feel raw and may bleed on brushing. Painful ulcers (similar to canker sores) may also be present. Lichen planus may appear as itchy patches or a rash on other parts of the body such as the lower arms and legs, scalp (sometimes causing hair loss), and the genital areas. The nails may show ridges. Such skin problems occur in about 1 in 7 to 10 persons affected by OLP.

What causes lichen planus?
The exact cause of OLP is unknown. Most cases are “idiopathic,” meaning patients develop OLP for no apparent reason. Lichenoid (lichen planus-like) reactions are hypersensitivity reactions to certain medications such as antihypertensives, anti-diabetic medications, NSAIDs, anticonvulsants, statins and thyroid medication and they can look just like OLP. Dental materials such as amalgam used in “silver” metal fillings and gold used in crowns, may cause a lichenoid reaction on the mucosa in contact with it. These often occur in areas in contact with the fillings, but not always. Certain conditions such as lupus erythematosus, fungal infection, or cheek and tongue biting may mimic the appearance of OLP. Some patients may have hepatitis C. OLP is NOT infectious in nature and you cannot spread it to family members or friends.

How do we know it is lichen planus?
Usually a dentist or dental specialist can diagnose OLP by taking a good history and by clinical examination alone. In some cases, the diagnosis of OLP needs to be confirmed with a biopsy.

How do we treat lichen planus?
There is no cure for OLP although very rarely, some cases do go away completely. If a newly started medication appears to be a trigger, stopping the medication may lead to resolution of the condition. In the majority of cases, the goal is to control the disease by reducing the amount of inflammation, thereby reducing pain and sensitivity. How it is treated depends on the severity of the condition.

You will likely be treated with topical steroids 3-4 times a day for a few weeks. Sometimes if there is a large ulcer, your doctor may recommend treating the area “intralesionally” (with a steroid injection directly into the involved area), to speed the healing process. In severe cases, steroid tablets such as prednisone may need to be taken for several weeks to help heal the lesions.

The most commonly prescribed topical steroids are fluocinonide or clobetasol gel (or compounded clobetasol rinse), and dexamethasone rinse. You may also be prescribed a topical non-steroid medication called tacrolimus, either as an ointment or as a compounded rinse. You may notice what is known as a “black box warning” on the tacrolimus packaging because animal studies showed an increased cancer risk from using this medication. We believe this risk to be minimal compared to the benefits you will experience. In spite of this warning, it is also widely prescribed by dermatologists because it successfully treats many skin conditions.

After symptoms have been brought under control, you may reduce the frequency of therapy to the lowest amount needed to maintain comfort, increasing the frequency during flare-ups as needed. It is a good idea to stop treatment completely if you have no discomfort to let your mouth rest rather than use the topical therapy continuously.
Instructions for applying a gel or ointment: After rinsing your mouth with water, gently pat the affected area(s) dry with cotton gauze. Place a small amount of gel on a clean finger, dab it onto the area that hurts and do not eat or drink for 15 minutes for the steroid to be absorbed. It will not hurt you to swallow some of this gel. You may also apply the gel to gauze and place the gauze against the affected area that you are treating. If the gums are involved, a custom tray, like those used for teeth bleaching but covering the affected gums, may be worn with the steroid in it for 30 minutes once or twice a day.

You may notice that the packaging of the steroid may have the following warning: "Not for internal use" or "For external use only." Such topical steroids have been used for decades to treat inflammatory conditions in the mouth effectively. The warning is there because these steroids are not FDA-approved for this use although there are many studies that demonstrate their effectiveness and safety for treating oral diseases.

Instructions for using a mouth rinse/solution: If you have extensive or difficult to reach oral lesions, you may be prescribed a topical steroid solution (typically dexamethasone) that is used as a mouthwash. A teaspoon (5 ml) of solution should be rinsed for 5 minutes then spat out, and you should not eat or drink for 15 minutes afterwards. It is very important to hold the solution in your mouth for the full five minutes to ensure it works effectively. You may also be prescribed tacrolimus or clobetasol compounded into a rinse by a special compounding pharmacy. You would use it the same way as the dexamethasone.

Any of these topical gels or rinses may cause slight stinging when applied or rinsed. Your doctor may ask you to combine the gel or rinse you are using with topical numbing medicine called viscous lidocaine to ease this burning or stinging sensation. These treatments may cause you to develop a yeast infection ("thrust") in your mouth. Your doctor may prescribe an anti-yeast (anti-fungal) rinse such as nystatin, clotrimazole troches, or fluconazole tablets to prevent and/or treat the yeast infection. You are particularly susceptible to this if you have diabetes or a history of yeast infections.

In some patients, disease may be so severe that systemic medications may be necessary, at least for a while. These include steroids such as prednisone, hydroxychloroquine and mycophenolate mofetil.

What can I expect?
OLP tends to come and go. Some days it will feel better, and other days it may feel worse. It tends to flare up if your body is stressed, either physically (such as having a cold) or emotionally (such as having work or family problems). During flares, it is best to avoid crunchy, spicy and acidic foods, as well as strong toothpastes as they may worsen your symptoms. A children's toothpaste is usually more comfortable to use, or you can use Biotene™ products which are milder. Once established, OLP tends to be a chronic condition that seldom completely goes away although it is often well-controlled with medication.

Lichen planus and oral cancer
There is a weak link between OLP and oral cancer. In general, those with OLP who developed oral cancer either smoked cigarettes and/or drank alcohol – the two biggest oral cancer risk factors. For patients who do not have either habit, the risk of development of oral cancer is probably between 0.1 - 0.2%, that is, 1 out of 500-1000 patients with OLP may develop oral cancer over time. If you smoke, quitting smoking reduces your overall risk of developing oral cancer.

The most important thing you can do for yourself, therefore, is to visit your dentist for regular check-ups. In some cases, it may be necessary for you to have periodic oral biopsies. If you wish, you may be followed here at Brigham and Women's Hospital.