



Figure 1. Small leukoplakia of inner cheek



Figure 2. Leukoplakia of the side of the tongue



Figure 3. Large leukoplakia of the inner lower lip and floor of the mouth. Biopsy showed area of cancer in this lesion.



Figure 4. Leukoplakia of the underside of the tongue



DIAGNOSIS • TREATMENT
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Oral Leukoplakia

Patient Information



What is leukoplakia and why is it important?

Leukoplakia (luke - o – **plake** – ee – ah) is a clinical term that is used to describe certain white patches in the mouth. Not all white patches are called leukoplakia – just the ones that cannot be rubbed off and cannot be diagnosed as any other condition or disease (Figures 1-4). Leukoplakia is important because, over time (typically months to years), a percentage of these white patches will transform to oral cancer.

Who gets leukoplakia?

Most cases of leukoplakia are found in older men, but women can develop this problem as well. The condition is very uncommon in people under 40 years of age, however it has been seen in these individuals as well.

What causes leukoplakia?

Many times a direct cause cannot be identified, but a large percentage of patients with leukoplakia use (or have used) tobacco, typically in the form of cigarettes. We now know that some leukoplakias can be caused by the current or past use of sanguinaria (bloodroot)-containing products (Viadent; The Natural Dentist).

How do doctors diagnose leukoplakia?

The clinical diagnosis of leukoplakia is made by listening to the patient's medical and social history, looking carefully at the lining of the mouth, and by excluding other possible causes of white patches in the mouth. Often a biopsy is needed.

How is leukoplakia treated?

In most cases, a biopsy will determine how advanced the leukoplakia is in terms of its precancerous potential. Sometimes the changes in the lining of the mouth seen under the microscope are very subtle, and this is sometimes called "epithelial atypia". The significance of this is unknown. While it is unlikely that "epithelial atypia" will soon become cancerous, we cannot rule out the possibility of this happening sometime in the future. If the changes seen are more suggestive that the lining of the mouth will probably become cancer, this is called "epithelial dysplasia", and it is usually graded as mild, moderate or severe, depending on what the tissue looks like under the microscope. In a small percentage of cases, the very beginning stages of oral cancer may be seen.

The type of treatment that is recommended will depend on several things, including the location in the mouth of the leukoplakia, how

large the leukoplakia is, how "bad" the dysplasia appears under the microscope, and the patient's age, habits, and other medical problems. For leukoplakias diagnosed as "atypia" or "mild dysplasia" in an older adult who smokes, we usually recommend that the patient stop smoking, and the lining of the mouth should be re-evaluated periodically. For those leukoplakias diagnosed as "moderate" or "severe", we usually recommend complete removal of the white patch in order to prevent the development of oral cancer. Removal can be done by traditional scalpel excision, electrocautery, liquid nitrogen application or laser surgery. Each treatment has its advantages and disadvantages, and deciding which one should be used depends on each patient's situation.

What happens after my leukoplakia is treated?

While most cases of leukoplakia are cured once they are removed, it has been well documented that about one in three lesions will grow back. The chance of the leukoplakia returning is increased for those patients who continue smoking. For this reason, we always recommend periodic re-evaluation of the oral mucosa by someone who is familiar with the lining of the mouth. If the leukoplakia should recur, repeat biopsy is generally advisable.