The mouth is often said to be a window through which you can view the rest of the body and may be an early warning of things to come. Oral tissues function in a variety of ways and have an extremely high rate of repair and replacement. The jaws and teeth exert enormous power with biting and chewing. Through the mouth passes extremes of freezing cold to boiling hot, rock hard to liquid, and texture of coarse to soft. In this environment soft tissues can easily be traumatized, irritated, or destroyed. Abnormal findings are worrisome to both referring health professionals and patients alike. For this reason, patients often are referred to an Oral and Maxillofacial surgeon for evaluation and appropriate treatment.

Referrals are made for a variety of reasons:

Physicians or dentists notice on routine exam an abnormal finding.
Patients themselves become concerned about something they have noticed.
Family or friends comment on an enlargement which has gone unnoticed by the patient because it has occurred so slowly over time.
Health professionals or patients mistake normal anatomical findings as something seriously wrong.
Physicians refer the patient to confirm a diagnosis of systemic disease.
Patients are concerned because of the cosmetic appearance.
Patients seek attention due to pain, numbness or areas of paralysis.
Patients have infections which do not respond to regular treatment.

With repeated trauma or irritation in the mouth, occasionally a lesion or growth will form. Infections may be a cause of lesions or secondarily present. However, lesions may have no obvious cause. Growth (tumors) may be either benign or malignant. The vast majority of the lesions referred for evaluation and treatment are benign. Often only an initial examination is necessary to establish a diagnosis and only medication or minor treatment is necessary. However, Surgeons do not have microscopic vision and often need further information to help establish a diagnosis. Our doctor may need to take a tissue sample or biopsy to send to the pathologist.

**BIOPSY**

If an abnormal area in the mouth is large, in an area difficult to access, or is highly suspicious of cancer, a small wedge of the lesion may be removed called an incisional biopsy. If the lesion is smaller, has a benign appearance, or needs to be totally removed, an excisional biopsy is performed. In deep lesions which would require extensive surgical access, it is sometimes
desirable to do a needle biopsy. Following the removal of tissue, stitches are placed to aid healing and reduce bleeding.

Evaluation may also require the ordering of laboratory tests and appropriate x-rays. Plain x-rays are initially helpful but often more specialized CT scans or MRI studies may be necessary to confirm a diagnosis or plan the best treatment. A follow-up appointment is usually made to discuss the results of the tests and any further treatment.

The lining tissues of the mouth are usually only a few cells thick and readily show the color of the underlying structures. The pink color varies normally in the tongue and palate due to the thicker tissues in those areas. Alterations in the normal appearance of tissues may represent a process of change, the development of a pathologic lesion. On a scale from 0 to 10, changes can occasionally be noted to progress with time. Zero on the scale is normal. If irritation, trauma, exposure to excessive temperature, caustic substances or cancer causing agents occurs, the body may increase the rate of repair making the area thicker to insulate itself from injury. On the scale of 3 such a change is called **Metaplasia**. Under the microscope the cells all appear normal except for increased numbers and increased thickness. If the causing agent is removed, over time the tissues will return to normal. Occasionally changes progress to 5, the “tipping point” on the scale or **Dysplasia**. Under the microscope, the dysplastic cells appear to have changed from the surrounding plump, large and lightly stained cells to isolated cells which are small, dense and darkly stained in appearance. These dysplastic cells have the appearance of cancer but they haven’t yet started rapidly dividing and invading like cancer cells. At this point of change, if the causing agent were removed, the tissues wouldn’t return to normal and most likely will eventually develop into cancer at some point in time. A diagnosis of dysplasia usually means the area must either be removed to prevent invasive cancer or watched very carefully. Any change beyond 5 on the scale is **Anaplasia** or cancer.

Signs and symptoms of changes which could suggest a serious underlying problem include the following:

1. Excessive thickening of normally pink tissues to form white patchy areas called leukoplakia or white plaque lesions.

2. Areas of reddish appearance called erythroplasia.
3. A sore or ulcer which doesn't heal in a reasonable period of time.

4. Growths which are rapidly increasing in size.

5. Sores that bleed easily.

6. Painless thickening of tissue.

7. Progressive difficulty moving the tongue.

8. Difficulty chewing, swallowing, or speaking.

9. Change in the voice or sore throat.

10. Areas with abnormal granular or wart-like appearance.

11. Enlarging firm knots which develop in the neck often on the same side as a sore in the mouth.

12. Difficulty opening the mouth.

13. Unexplained foul odor.
14. Pain, numbness, or areas of facial paralysis.

15. Swelling and asymmetry.

Lifestyles and behavior also play a role in putting patients at risk. These factors which can cause adverse changes often seem to be accumulative in nature or increase the risk with continued exposure. Some of these risk factors are as follows:

1. Use of oral tobacco products such as snuff, smokeless tobacco, chewing tobacco, or pouches.

2. Heavy use of alcohol, especially in conjunction with tobacco use.

3. History of smoking cigarettes, pipes or cigars.

4. Living or being in a confined space with someone who smokes.

5. Chewing Betel nut, a product used extensively in Asia.

6. Sharp edges on appliances or teeth which frequently cut or irritate an area.

7. Ill-fitting dentures

8. Self medicating to treat sores in the mouth with agents not approved for oral use or known cancer causing agents.
9. HPV (Human Papilloma Virus) infection

Everyone should have their physician and dentist perform routine oral exams when they have check-ups. Routine self-examination of your own mouth is best for early detection of problems. Behavior modification is essential to reduce risk factors. It is very important not to procrastinate an evaluation if you know you have a problem. Early treatment most often gives better results and peace of mind is priceless. Our staff will be glad to assist you.