Ronald N. Cummings, D.D.S., M.S.
ORTHODONTICS FOR CHILDREN & ADULTS

ORTHODONTICS
AN EXCITING TREATMENT THAT CAN PROVIDE
( ) Better Health and Comfort
( ) Improved Appearance
( ) Enhanced Self Esteem

As a rule, positive orthodontic results can be achieved by informed and cooperative patients. Thus, the following information is routinely supplied to all who consider orthodontic treatment. While recognizing the benefits of healthy teeth and a pleasing smile, you should also be aware that orthodontic treatment has limitations and potential risks. These are seldom enough to avoid treatment, but should be considered in making the decision to undergo orthodontic treatment. Orthodontic treatment usually proceeds as planned; however, like all areas of the healing arts, results cannot be guaranteed.

BENEFITS
Orthodontics plays an important role in improving overall oral health, and in achieving balance and harmony between the teeth and face for a beautiful, healthy smile. An attractive smile enhances one’s self esteem, which may actually improve the quality of life itself. Properly aligned teeth are easier to brush, and thereby may decrease the tendency to decay, or to develop diseases of the gums and supporting bone.

Because of the individual conditions present and the limitations of treatment imposed by nature, each specific benefit may not be attainable for every patient. The unknown factor in any orthodontic correction is the response of the patient to the orthodontic treatment.

NATURE AND PURPOSE OF THE PROCEDURES
Orthodontics strives to improve the bite by helping to direct the forces placed on the teeth, thus protecting them from trauma during ordinary everyday activities, such as chewing and grinding. Orthodontics distributes the chewing stress throughout the mouth to minimize excessive stress on bones, roots, gum tissue and temporomandibular joints.

Through orthodontic treatment, potential dental problems may be eliminated, including the problem of abnormal wear. Treatment can facilitate good oral hygiene to minimize decay and future periodontal problems. Also, orthodontics can provide a pleasant smile, which can enhance one’s self-image.

RISKS
All forms of medical and dental treatment, including orthodontics have some risks and limitations. Fortunately, in orthodontics complications are infrequent and when they do occur they are usually of minor consequence. Nevertheless, they should be considered when making the decision to undergo orthodontic treatment. The major risks involved in orthodontic treatment may include:

1. Tooth decay, gum disease, and permanent markings (decalcification) on the teeth can occur if orthodontic patients eat foods containing excessive sugar and/or do not brush their teeth frequently and properly. These same problems can occur without orthodontic treatment, but the risk is greater to an individual wearing braces.

2. In some patients the length of the roots of the teeth may be shortened during orthodontic treatment. Some patients are prone to this happening, some are not. Usually this does not have significant consequences, but on occasion it may become a threat to the longevity of the teeth involved.

3. The health of the bone and gums which support the teeth may be affected by orthodontic tooth movement if a condition already exists, and in some rare cases where a condition doesn’t appear to exist. In general, orthodontic treatment lessens the possibility of tooth loss or gum infection due to misalignment of the teeth or jaws. Inflammation of the gums and loss of supporting bone can occur if bacterial plaque is not removed daily with good oral hygiene.

4. Teeth may have a tendency to change their positions after treatment. This is usually only a minor change and faithful wearing of retainers should reduce this tendency. Throughout life the bite can change adversely from various causes, such as: eruption of wisdom teeth, growth and/or maturational changes, mouth breathing, playing of musical instruments and other oral habits, all of which may be out of the control of the orthodontist.
5. Occasionally problems may occur in the jaw joints, i.e., temporomandibular joints (TMJ), causing joint pain, headaches, or ear problems. These problems may occur with or without orthodontic treatment. Any of the above-noted symptoms should be promptly reported to the orthodontist.

6. Sometimes a tooth may have been traumatized by a previous accident or a tooth may have large fillings which can cause damage to the nerve of the tooth. Orthodontic tooth movement may in some cases aggravate this condition and in rare instances may lead to root canal treatment.

7. Sometimes orthodontic appliances may be accidentally swallowed or aspirated, or may irritate or damage the oral tissues. The gums, cheeks and lips may be scratched or irritated by loose or broken appliances or by blows to the mouth. Usual post adjustment tenderness should be expected, and the period of tenderness or sensitivity varies with each patient and the procedure performed. (Typical post-adjustment tenderness may last 24-48 hours). You should inform your orthodontist of any unusual symptoms, or broken or loose appliances, as soon as they are noted.

8. On rare occasion, when dental instruments are used in the mouth, the patient may inadvertently get scratched, poked or receive a blow to a tooth with potential damage to or soreness of oral structures. Abnormal wear of tooth structures is also possible if the patient grinds the teeth excessively.

9. If improperly handled, headgear may cause injury to the face or eyes, even blindness. There have been a few reports of injury to the eyes of patients wearing headgear. Patients are warned not to wear the appliance during times of horseplay or competitive activity. Although our headgears are equipped with a safety system, we urge caution at all times.

10. Sometimes oral surgery; tooth removal or orthognathic surgery, is necessary in conjunction with orthodontic treatment, especially to correct crowding or severe jaw imbalances. Risks involved with treatment and anesthesia should be discussed with your general dentist or oral surgeon before making your decision to proceed with this procedure.

11. Atypical formation of teeth, or insufficient or abnormal changes in the growth of the jaws may limit our ability to achieve the desired result. If growth becomes disproportionate during or after treatment, or a tooth forms very late, the bite may change, requiring additional treatments or, in some cases, oral surgery. Growth disharmony and unusual tooth formations are biological processes beyond the orthodontist's control. Growth changes that occur after active orthodontic treatment may alter the quality of treatment results.

12. The total time required to complete treatment may exceed the estimate. Excessive or deficient bone growth, poor cooperation in wearing the appliance the required hours per day, poor oral hygiene, broken appliances and missed appointments can lengthen the treatment time and affect the quality of the end results.

13. When clear and tooth colored brackets have been utilized, there have been some reported incidents of patients experiencing bracket breakage and/or damage to teeth, including attrition and enamel flaking or fracturing on debonding. Fractured brackets may result in remnants which might be harmful to the patient especially if swallowed or aspirated.

14. Due to the wide variation in the size and shape of teeth, achievement of the most ideal result (for example, complete closure of excessive space) may require restorative dental treatment. The most common types of treatment are cosmetic bonding, crowns and bridge restorative dental care and/or periodontal therapy. You are encouraged to ask questions regarding dental and medical care adjunctive to orthodontic treatment of these doctors who provide these services.

15. General medical problems can affect orthodontic treatment. You should keep your orthodontist informed of any changes in your medical health.

**POSSIBLE ALTERNATIVES**

For the vast majority of patients, orthodontic treatment is an elective procedure. One possible alternative to orthodontic treatment is no treatment at all. You could choose to accept your present oral condition and decide to live without orthodontic correction or improvement. The specific alternative to the orthodontic treatment of any particular patient depends on the nature of the individual's teeth, supporting structures and appearance. Alternatives could include:

1. Extraction versus treatment without extraction;
2. Orthognathic surgery versus treatment without orthognathic surgery;
3. Possible prosthetic solutions; and
4. Possible compromised approaches.