

Your Orthodontics



Orthodontics

Most of us understand that the term <orthodontics> refers to the movement and correct alignment of the teeth. This change in tooth position is usually best accomplished with fixed braces. These are sometimes known as «**train tracks**».

Unfortunately, whilst removable orthopaedic appliances can achieve remarkable correction of a patient's bone problems, they do not align the teeth well. Conversely, fixed braces can align the teeth quite nicely but they have difficulty correcting problems with the underlying bone structure. It is for these reasons that your dentist may use a combination of both of these techniques to solve your problem.

New fixed orthodontic appliances with less obvious white porcelain brackets (**ceramic braces**) are available but they have their limitations. There is an additional cost for this type of appliance.

Invisible braces or **INVISALIGN** are a new type of orthodontics using a series of transparent tooth aligners to straighten the teeth. However, these are only suitable in a limited number of cases.

Dento Facial Orthopaedics

To most people, the term **maxillo** - facial orthopaedics - can be very confusing. In simple terms, it means modifying the size, shape, and relationship of the bones of the face and jaws, which will also reduce the need for extracting teeth.

In most cases, this correction can be accomplished with functional, removable orthopaedic appliances, as opposed to surgery.



Diagnosis

This first step in treatment is to fully understand the nature of the problem. In order to arrive at a correct diagnosis, the dentist will take a series of records and find out from you what your needs are. These include study casts of the patient's teeth, photographs of the face and teeth, X-rays of the teeth and jaws, and a single X-ray of the skull called a Cephalometric Radiograph.

Once the dentist has all of this information, he or she can then diagnose the cause of the problem. It is important to understand that properly aligning dental units is often more complex than just fixing «crooked teeth.» The dentist should not only straighten the teeth but should also be satisfied that there is balance and harmony within the jaws, face and the temporomandibular joint (jaw joint).

Treatment

The exact type of treatment that will be required to correct your problem will obviously depend upon the information that is gained from the diagnostic investigations and the discussion with you.

However, we can divide therapy into four general categories.

In order to eliminate confusion, let's briefly define these four concepts of treatment:

Functional Orthopaedic Therapy: Removable orthopaedic appliances are used to correct jaws that are growing incorrectly. Different forms of appliances may be required to treat different growth problems.

Extraction Therapy: The removal of permanent teeth in order to correct an orthodontic problem.

This technique is used very selectively in this practice as it is usually in the patient's best interest to maintain all of the permanent teeth to have wide arches and full smiles.

Surgical Therapy: Just as the name implies, this procedure is reserved for those patients whose imbalance has progressed to the point that only surgical

intervention can correct the problem.

Fixed Appliance Therapy: This is the conventional orthodontic appliance technique using fixed braces. Very small brackets are attached to each individual tooth for precise positioning of the teeth.

It should be noted that quite frequently two or more of these techniques are combined in order to achieve the desired results. Your dentist will explain to you the type of treatment that can best correct your problem.

Orthopaedic appliances to be used include:



Herbst Appliance



Headgears



Twin Block Appliance



Schwarz Appliance

Who is Responsible?

The treatment is a joint effort. It is very important that everyone involved understands his or her responsibilities in order for the treatment to be successful. Also the overall cost of the therapy is directly related to the patient's compliance.

The Dentist - It is my role to recognize the patient's problem and to select and apply the appropriate therapy.

The Patient - It is your responsibility to faithfully wear the appliance and to follow the instructions of the dentist.

The Parent - It is your responsibility to ensure that your child is wearing the appliance/s and following the appropriate instructions of the dentist.

This relationship is called the «triangle of success». When everyone does their job correctly, the results can be astounding.

Let's Get Under Way!

Now that we have a basic understanding of the problem and the type of treatment available, let's get down to the «nuts and bolts» of every type of therapy. Most cases require less than two years of active treatment to correct. This means that discipline is important.

All appointments must be kept. If you fail to keep appointments, the treatment will take longer and be more difficult for the dentist and more expensive for the patient. When appointments and instructions are observed the treatment goal is obtained quicker, easier and cheaper. Everyone benefits.

Fixed appliances

The most important fact to remember about fixed appliance therapy is hygiene. If the patient does not keep the appliance clean, either decay or a change in tooth colour will result around the braces. The patient must brush after every meal, being careful to clean around each individual tooth. Inter-proximal brushes (like tiny bottle brushes) must be used between each bracket at least twice a day. A fluoride mouthwash is also recommended.

If these rules are observed, no damage will occur to the teeth or gums as a result of orthodontic therapy.

A second major factor in appliance care is diet. Orthodontic appliances are very delicate and can be easily damaged by improper diet. Sticky foods such as chewing gum and sweets, hard items such as nuts, apples and crisps can break the appliance away from the tooth. Careful attention to eating habits can speed treatment and reduce the cost of orthodontic therapy. If elastics are required as part of the therapy, they should



be worn exactly as requested by the dentist. All elastic bands should be exchanged for new ones every twelve hours. When the elastic supply becomes low, please contact your dentist for an additional supply.

Careful what you eat!

Forbidden hard foods: Hard candy, ice, nuts, jerky, pizza crust..

Forbidden crunchy foods: Chips, popcorn, apple, carrots, corn on the cob..

Forbidden sticky foods: Gum, taffy, licorice, gummy bears, chewy candy, soda, caramels..

Do not bite into whole fruits and vegetables such as apples and carrots. Please cut them into small pieces and chew with your back teeth. It is best to steam vegetables to soften them. Remove corn kernels off the cob before eating them. Avoid sodas and other drinks that contain sugar as that can cause tooth decay.

Lastly, avoid CHEWING on hard objects such as pens and pencils.

Healthy Tips:

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Common Questions

As with anything that is new and unfamiliar, many questions always arise. The following are the most common. If you do not find an answer to your question be sure to ask the dentist. The more you understand about the treatment, the better it will progress.

Q. What caused the problem in the first place?

A. No one knows the exact cause of every orthodontic problem. Some causes are very evident, such as thumb sucking. Most are much more complex. However, the old cliché that the patient inherited the father's teeth and the mother's. Jaw is simply not correct.

Q. Why do my child's teeth look so large?

A. The teeth do not change in size once they are formed. In a normal relationship the face and jaws grow fast enough to accommodate the erupting permanent teeth. It is when this balance becomes disrupted that orthodontic problems start to occur.

Q. Is early treatment always best?

A. Not necessarily. If the patient's problem is growth related then it certainly is wise to begin therapy early. The majority of problems fall into this category. However, if the problem is simply "crooked teeth", the dentist may advise you to delay treatment until all of the permanent teeth have developed.

Q. Can my child be treated with only removable appliances?

A. Not usually. Sometimes all of the permanent teeth will correctly align themselves following orthopaedic therapy. However, everyone should be prepared to complete the second phase of treatment, which is orthodontic therapy using fixed braces.

Q. Do children "talk funny" with an appliance in their mouth?

A. Only for a short period of time. The speech pattern will quickly adapt to the appliance when it is worn full time.

Some further small print of the pros and cons:

- Root resorption, which is progressive shortening of the roots, may occur as a result of any treatment involving the wearing of appliances.
- Loss of tooth vitality (where the nerve within the tooth dies) can occur with orthopaedic & orthodontic treatment although it is usually related to a large cavity, filling or trauma to the tooth.
- Unfavourable growth during the treatment e.g. strong lower jaw forward growth, can affect the treatment outcome.
- TMJ (jaw joint) problems can arise during treatment but it is often those treatments that actually help with improving such issues.
- Enamel reduction and some tooth reshaping may be required to correct crowding.
- Tooth size discrepancy and minor spacing can occur if teeth are very small or not symmetrical. This may require some bonded restoration.
- The majority of treatment times can vary from six to twenty four months, although there may be some interval between the orthopaedic and orthodontic phases. Your dentist will give you some idea of the approximate treatment time for your proposed treatment.
- Relapse can happen very quickly, especially if retainers are not worn correctly. Some minor relapse can occur even with good co-operation.

Remember

"It's the goal of everyone concerned to create beautiful smiles, beautiful faces and teeth that will last a lifetime. The time and expense that is required to attain this goal is a nominal investment compared to a lifetime of rewards."

