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Adult & Child Braces and Early Interceptive Treatment for Ages 6-9 (©Fox 2007)

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## Really Straight Teeth<sup>TM</sup>

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# Two-Phase Orthodontics: A Special Kind of Orthodontic Treatment

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Orthodontics

#### **First Phase Early Treatment:**

The first goal of First Phase treatment is to *develop the jaw size* (*width and length*) in order to accommodate all the permanent teeth that are going to be there for a life time whether extractions are done or not. The 2<sup>nd</sup> goal is to *relate the upper and lower jaws to each other*.

These 2 goals happen to be the same goals in teenage and adult treatments. Dr. Fox's diagnosis and treatment planning for early treatment is done with the same amount of time as the teenage and adult cases. A problem list is developed of the patient and a solution is listed for each problem. Then, a general plan is written to handle all the problems of the patient. From there, a methodical and sequential step by step treatment plan is listed along with the time for each step. Phase I, in Dr. Fox's hands, is not just "let's try some expansion or let's try some type of jaw growth or let's throw in a device that will hold space. Each patient is viewed three-dimensionally and definite problems that can be handled are treated.

Children sometime exhibit early signs of jaw problems as they grow and develop. An upper and lower jaw that is growing too much or not enough can be recognized at an early age. If children **after age 6** are found to have a jaw discrepancy, they are candidates for early orthodontic treatment. It is encouraged to have all children seen at age 7 on their birthday to make sure nothing is truly wrong. Not doing so can leave a child's smile and profile compromised later.

Because they are growing rapidly, children can benefit enormously from an early phase of orthodontic treatment utilizing appliances that direct the growth relationship of the upper and lower jaws. Thus, a good foundation can be established, providing adequate room for eruption of all the permanent teeth. Leaving such a condition untreated until all the permanent teeth erupt could result in a jaw discrepancy too severe to deal with teenage braces alone. This also can make treatment last longer than 2 years long and/or the case ending up with a compromised result. Dr. Fox is not pro-extraction, but if all the teeth are not going to fit they are not going to fit. He has many techniques to attempt to get the teeth to all fit in each arch.

Dr. Fox doesn't use bulky plastic or metal functional appliances as Herbsts to do jaw growth. Herbst appliances look like metal shock absorbers inside the mouth that makes the patient hold their lower jaw out to attempt to get it to grow. Herbst appliances do not control the lower incisors from tipping forward during their use and

many overjets even though they look corrected are not. The lower incisors will be found tipped severely forward correcting the overjet *yet the lower jaw will still be retruded*. Dr. Fox uses specially fabricated wires called *utility arch wires* and elastics or special soft coils called Jasper Jumpers. All incisors and 1<sup>st</sup> molars are braced and aligned before using these to gain full control of the incisors and to attempt to keep them from "dumping forward."

#### **Resting Period:**

Dr. Fox always attempts to limit the early first phase to no longer than 17–20 months (most have 10-17 months). An attempt is made to have a "resting period" between the two phases unless the child arrived in Dr. Fox's late too late in age to do Phase I treatment.

There is an interesting phenomenon not mentioned in the literature observed by Dr. Fox. 25-50% of females at age 9-10 are about to or already have shed most of their primary teeth. Yet, it's only observed in 5-10% of males. This statistic has increased over the past 15 years and is making treatment of early treatment cases more difficult if they arrive at age 8 or 9 rather than at age 7.

In the resting phase between Phase I and Phase II, the remaining permanent teeth are allowed to erupt. Retaining devices are usually recommended until they start to interfere with eruption of permanent teeth. A successful first phase will have created room for teeth to find an eruption path. Otherwise, they may become trapped in the bone, come in the wrong place or come in with weak gums around them with part of the root showing.

The teeth are not in their final positions at the end of Phase I. Phase II braces on

all twenty-eight teeth are needed to get them perfectly positioned. Phase I does not address sixteen permanent teeth that are still developing in the bone.

Selective removal of primary teeth may be in the best interest of the patient to enhance eruption of the permanent teeth during this resting phase. Therefore, appointments after Phase I is completed are necessary every 3 months to observe the remaining permanent teeth eruptions.

#### 2<sup>nd</sup> Phase Treatment:

Each tooth has an exact location in the mouth where it is in harmony with the lips, cheeks, tongue and other teeth. When this equilibrium is established, the teeth will function together properly and the orthodontic result will be stable and not relapse. They will stay healthy and attractive. This is the goal of the  $2^{nd}$  (final) phase of treatment.

At the start of Phase II, new orthodontic records are made to fully diagnose and treatment plan the patient. Treatment time usually is 15-24 months if the Phase I case was handled correctly. There are some cases that require more time especially if the 2<sup>nd</sup> molars need alignment to get the best result.

#### Advantages of Two-Phase Orthodontic Treatment:

Two-phased treatment is a very specialized process that involves tooth straightening and physical, facial changes. The emphasis today on living longer, staying healthy and looking attractive requires optimum treatment results. The major advantage of a two-phase treatment is to maximize the opportunity to accomplish the ideal

#### healthy, functional and esthetic result that will remain stable.

The disadvantage of waiting for complete eruption of the permanent teeth and having only one phase of treatment, for someone with upper and lower jaws that are too short, is having a compromised result that may not be completely functionally healthy. In other words, the bite may be left off and teeth may be left in abnormal positions. This unstable result is enough to cause teeth to move later after the braces are removed.

Over 25% of patients needing teenage braces today should have had some type of first phase treatment that they didn't receive. This is a very important fact since most early interceptive treatments are not discomforting since the bones are very flexible before the ages of 10.

Speech problems are also treated early since left alone these speech problems cause the child to learn to speak bigger and bigger words with crooked teeth and jaws. This makes speech therapy necessary later and more difficult to implement since the speech is so deeply learned by the teenage years.

#### **Special note:**

The American Association of Orthodontists recommends that a child's first visit to an orthodontist be at age 7. Often children within a family will exhibit certain predictable patterns of growth in much the same way they inherit similar eye and hair color. Like other family traits, particular patterns of tooth and jaw development also "run in the family."

With these facts in mind, it is hoped that all children are examined at age 7 so that the family can be given the maximum orthodontic care they deserve. As a parent, you can examine your own child by placing them in a chair, look from the side and take a look at their profile. You will be amazed at the number of children that "appear" to not have a skeletal problem when looking at them from the front. Sit them up and "take a look at the forehead right between the eyebrows and then drop an imaginary line down to the floor. If the point centered between the lower lip and chin button (called the labial mental sulcus) is behind this line then the child does have a retruded lower jaw. The only other way to detect retruded lower jaws is with a special orthodontic x-ray or if the patient has an overjet. See if you can do this in the three photos below (this is the same patient - the far left photo shows lower jaw retrusion while the middle and far right are after jaw growth treatment).



#### **Summary**

It is hard sometimes to convince a parent to bring their child to me to have them checked out for early interceptive treatment. The only thing I can do is let them know I care about their child's dental health. A general dentist may not be paying attention at the 6 month check-up to refer a child. Most patients

will travel 20 miles to see Dr. Fox since they know no one around has the training and experience that 1000's of patients trust. Also, that great feeling you'll get, knowing that the patient is

#### About Dr. Fox and his office

Dr. Fox has treated over 6,000 early treatment cases in 27 years including cleft lip and palate cases. The minimal degree obtained today in orthodontics is called a certificate. Dr. Fox went beyond certificate training and obtained a Master's Degree in Orthodontics & Dentofacial Orthopedics. He is a Diplomate of the American Board, which has early treatment case requirements. His training was very complete in early interceptive treatment and how it integrates into a complete treatment plan. As part of his training, he wrote a Master's thesis on the birth defects of taking Aspirin or Acetaminophen while pregnant. Over 100,100 measurements were made in this study and provided him an in-depth view of how the human face grows and how it can be altered. The study was recognized with one of the top research awards bestowed by the American Association of Orthodontists, in 1987, named the Harry Sicher Award.

The below are some types of cases that must be seen at early at age 7 so that a complete diagnosis and treatment plan can be formulated and the patient start treatment:



getting the best care is priceless.



Narrow arches and overjet



Anterior crossbite; upper jaw retrusion



Class II division 2; deep bite



Strong frenulum; large diastema



Small or pegged shaped lateral incisors



Lower anterior crowding



Severe overjet; severe protrusion of upper anterior teeth



Upper and lower protruded incisors; tongue thrust



Impacted ower right lateral incisor



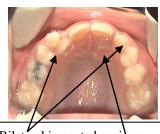
Posterior crossbite



Upper supernumerary central incisors



Upper narrow arch so narrow to cause severe midline shift



Bilateral impacted canines with upper left lateral incisor erupting in palate

#### **Important Note**

The parent is in an excellent position to detect, intercept and correct minor orthodontic problems early, thus making it unnecessary for the child to go through complex orthodontic treatment at a later date. Most patients who have Phase I early treatment usually only have 12-18 months of simple Phase II teenage braces. 5-10% never need Phase II. Getting the child in at age 6-7 is ideal; after age 10, we're lucky if prevention can be accomplished; and patients that come after age 10 come too late for prevention or early treatment interception.

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Diplomate: American Board of

Orthodontics

Member: American Association

of Orthodontists

Recognized: Who's Who in

**America** 

Recipient: Harry Sicher Research Award of the American Association of

Orthodontists

Member: Upper Pinellas County Dental Association

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It is estimated that 40 to 75 percent of the population could benefit from orthodontic treatment. Teeth need straightened so that you can your dentist can clean them easier so that you do not lose them. Some patients may receive treatment as children, while others seek treatment as adults. Each patient presents with a unique problem.

For some, early diagnosis and early treatment may be appropriate. It is recommended that children get an orthodontic check-up no later than age 7. Adults may have special considerations that may require inter-disciplinary care, which, of course, would be coordinated by your family dentist. The goal of every orthodontist is to provide each patient with the most appropriate treatment at the most appropriate time. By working together, we (dentists and orthodontists) can give our patients beautiful, healthy smiles that are good for life!



She has Clear Ceramic Braces!

#### What is Orthodontics?

Orthodontics is a special discipline of dentistry concerned with aligning the teeth and jaws to improve one's smile and oral health. "Ortho" means correct or straight and "Odont" means tooth, so orthodontics combines these meanings: straight + teeth= straight teeth. Through orthodontic treatment, problems like crooked or crowded teeth, overbites or underbites, incorrect jaw positions and disorders of the jaw joints are corrected.

#### What is an Orthodontist?

All orthodontists are dentists, but only about six percent of dentists are orthodontists. An orthodontist is a specialist in the diagnosis, prevention and treatment of dental and facial irregularities. Orthodontists must first attend college, and then complete a four-year dental graduate program at a university dental school or other institution accredited by the Commission on Dental Accreditation of the American Dental Association (ADA).

They must then successfully complete an additional two to three-year residency program of advanced education in orthodontics. This residency program must also be accredited by the ADA. Through this training, the orthodontist learns the skills required to manage tooth

movement (orthodontics) and guide facial development (dentofacial orthopedics). Only dentists who have successfully completed this advanced specialty education may call themselves orthodontists.

#### Why do people need braces?

**Crowding:** Teeth may be aligned poorly because the teeth are too large for the mouth. The bone and gums over the roots of extremely crowded teeth may become thin and recede as a result of severe crowding. Poor biting relationships and an undesirable appearance may all result from crowding.



Overjet or protruding upper teeth: Upper front teeth that protrude beyond normal contact with the lower front teeth often indicate a poor bite of the back teeth, and may indicate unevenness in jaw growth. Thumb and finger sucking habits can also cause a protrusion of the upper incisor teeth.



**Deep overbite:** A deep overbite or deep bite occurs when the lower front teeth bite too close or into the gum behind the upper teeth. When the lower front teeth bite into the palate or gum tissue behind the upper front teeth, significant bone damage and discomfort can occur.



**Open bite:** An open bite results when the upper and lower front teeth do not touch when biting down. This space causes all the chewing pressure to be placed on the back teeth. The excessive biting pressure and rubbing together of the back teeth makes chewing less efficient and may cause the teeth to wear.



**Spacing:** If teeth are missing or small for the mouth, space between the teeth can occur. The most common complaint from those with excessive space is poor appearance.



**Crossbite:** The most common type of a crossbite is when the upper teeth bite inside the lower teeth (toward the tongue). Crossbites of both back teeth and front teeth are commonly corrected early at age 7 due to biting and chewing difficulties.



Underbite or lower jaw protrusion: About three to five percent of the population has a lower jaw that is to some degree longer than the upper jaw. This can cause the lower front teeth to protrude ahead of the upper front teeth creating a crossbite.



#### How do braces work?

Custom-made appliances, or braces, are prescribed and designed by the orthodontist according to the problem being treated. They may be removable or fixed (cemented and/or bonded to the teeth). They may be made of metal, ceramic or plastic. By placing a constant, gentle force in a carefully controlled direction, braces can slowly move teeth through their supporting bone to a new desirable position.

### The Key is feeling comfortable with free Information before you decide!

**5 Reasons** Why You Must Choose **Dr. Fox** for <u>Early</u> <u>Treatment Braces at Age 6</u>:

- 1. Dr. Fox treated himself and knows what it is like to be in braces!
- 2. Discover How This New Technology Works. Dr. Fox has a Master's Degree in Braces, was #1 in his dental class, has a world research award in Braces given to him by the American Association of Orthodontists.
- **3.** He creates enough space between your teeth so extractions of permanent teeth become unnecessary in most cases! No one can guarantee that they will all fit, but Dr. Fox will give you the truth.
- 4. Eliminate the need for devices that other orthodontists use as headgear (straps over the head or neck and big shock absorber lower jaw growth devices called Herbst.
- 5. Dr. Fox and his staff explain procedures that makes adults and children feel very comfortable with many stating, "I wish more medical & dental offices explained things like this to me

... they even showed me what my child's profile and straight smile will look like when it's all finished with their computers."

Call my office right now and arrange to get your first visit.

I look forward to seeing you soon,

Dr. Donald Fox



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