# EARLY TREATMENT ORTHODONTICS GUIDE





If you open up an old yearbook or glance through prom pictures from the 70's and 80's, there is one glaring article that will stand out more than the teased mullets, acidwashed pants and neon clothing... Braces! Orthodontics was a form of treatment common with high-school kids back in the day. However, the trends are a-changing. In

fact, you rarely ever see a high-school kid sporting braces or orthodontic headgear. This is because of the life-changing benefits of early orthodontic treatment.

#### WHY EARLY ORTHODONTICS?

#### Did You Know?

- » Orthodontists strive to achieve functional and structural stability in the mouth.
- » Improvements to the aesthetic quality of the mouth are merely a byproduct of good orthodontic treatment.

The primary objective of orthodontics is straightforward: the achievement of a perfect bite. A perfect bite is one in which

- 1. There is a functional relationship between the upper and lower jaw.
- 2. The teeth are staggered between one another, or fitting together like the teeth between gears.

With this relationship, orthodontists hope to achieve optimal functional stability for the patient's teeth and musculature. Or simply put, the perfect bite! An added benefit of orthodontic treatment is that it creates a foundation for future dental work. This enables future restorative dentists to do their best work. We ultimately seek to achieve functional stability in the musculature including functions that occur inside the oral cavity like breathing and swallowing.

Orthodontic treatment goes beyond the treatment of teeth to include the added benefit of enhanced aesthetics. Many patients tend to seek our care to improve aesthetic quality. In reality, our treatments are geared toward functional aspects; the aesthetic aspect is a byproduct. The field of orthodontics provides for a variety of methods of treatment. Broadly, these are early orthodontic treatment, dento-facial orthopedics, surgical orthodontics and craniofacial orthodontics. An orthodontist will typically select one or a combination of these to treat patients.

## THE VALUE OF EARLY ORTHODONTIC TREATMENT

#### Did You Know?

- » Early treatment can not only help guide the growth and development of a child's jaws, but it can also eliminate the need for orthodontic treatment in the future.
- » Early treatment is synonymous with preventive care. Most orthodontic problems are much easier to correct sooner rather than later.

There was a time when most parents didn't begin to think about the need for orthodontic treatment for their children until the teenage years. In the past, the trend for orthodontic treatment was to wait until most or all of a child's permanent teeth had come in. However, most orthodontic problems are much easier to correct sooner rather than later. This is why professionals recommend and insist upon early orthodontic treatment. Now, parents, dentists and orthodontists alike look toward treating children that haven't quite hit their teen years.

Certain orthodontic conditions can be treated as early as 7 or 8 years old. Although they may not be able to be totally corrected at that time, early orthodontic treatment will guide the growth and development of your children's jaws and teeth so they will not require orthodontic treatment later in life. In fact, early orthodontic treatment can drastically reduce the amount of treatment that a child needs to undergo in his/her lifetime. Early treatment and intervention is the key to most orthodontic problems, including the possible complications that may arise later in life. Early intervention is preventive care. You need no explanation why preventive care is a better approach. Most orthodontic problems are much easier to correct sooner rather than later.

Discrepancies in growth and development may exist in the respective widths of the child's upper and lower jaws. Ideally, the upper jaw accepts the lower jaw like a door frame accepts a door. Additionally, the upper teeth should bite down on the outside of the lower teeth. When biting all the way down, the full length of the lower front teeth should be visible. Furthermore, your child should not bite too deeply over the lower front teeth or have an opening in the front.

The way the bite fits together on the sides is the foundation of our bite. Just like the foundation of a house, it is the most important part of the bite. Even though it is the part nobody sees in the mirror when they smile. The front cusp of the upper molar should fit into the groove of the lower molar so that all the teeth fit together like bricks in a wall.

The most important relationship between the teeth is the fit of the upper canine tooth between the lower canine and the lower first premolar. This is because when your children shift their jaws from side to side when chewing food, or when they clench or grind at night, they glide off of those teeth and help protect their jaw joints. Not only does the fit matter for aesthetic reasons, but they are also important from a functional point of view.

As parents, it is important that you are aware of the signs you should be looking for in your children that precipitate the need for an orthodontic visit. The following are some very common orthodontic problems that children manifest. These can be corrected completely with early intervention. The following sections explain these problems and help you understand what signs you should look out for in your child.

#### How Is an Orthodontist Different from A General Dentist?

#### Did You Know?

- » Orthodontists are basically highly specialized dentists.
- » We correct problems involving jaw and tooth positioning
- » We treat kids when they're still young so they don't suffer or need treatment in the future.



Sometimes, patients come into our office without a clear understanding of the difference between a general dentist and an orthodontist. To clarify, an orthodontist is a dentist first. We first graduated from dental school. We then went on to specialize in orthodontics. The specialization is typically a 2 to 3-year residency program that follows dental school. To summarize, we specialize in problems involving jaw or tooth positioning. This includes underbites, overbites, missing, crowded, extra or misaligned teeth, and other aesthetic or structural issues. We treat the most difficult aspects of dental care.

# WHAT IS THE BEST AGE TO VISIT AN ORTHODONTIST FOR THE FIRST TIME?

#### Did You Know?

- » Children should be examined by an orthodontist by age seven.
- » Early treatment will ensure that your kids' orthodontic problems are completely resolved.



The American Association of Orthodontists recommends that children be screened as early as age seven. An early visit helps us identify contributing problems that might require additional orthodontics in the future. Not every patient who comes into the orthodontist's office at age seven requires or commences with a course of treatment. However, it is wise to have an educated eye examine the patient to identify factors that may require early intervention.

The probability of successful treatment and definitive impact is higher with a younger patient than with an older one. Age should not be the only determinant, however. It is never too early to schedule your child's first orthodontic consultation. Orthodontists are often the first line of defense in identifying overlooked issues like tongue dysfunction and breathing problems. Early detection and treatment of

these issues is vital. We therefore encourage patients with complaints to visit an orthodontist, regardless of age.

# WHY IS THE FIRST ORTHODONTIC CONSULTATION SO IMPORTANT?



#### Did You Know?

- » We identify problem areas best when we examine an untreated mouth.
- » The first visit is when we investigate a child's mouth to determine their need for orthodontics.

A child's first orthodontic consultation is the most important one. An untreated mouth offers the best opportunity to identify the underlying causes of symptoms that might be contributing to the patient's orthodontic problem. This enables us to take a holistic approach to any kind of treatment. If we focus only on how we will treat a malocclusion or poorly fitting teeth, we may miss signs of why the patient's teeth are like that in the first place.

We try to be acutely cognizant of the overall condition of a child's mouth. If we are not perceptive before starting treatment, the patient's mouth becomes an altered environment. Identifying preexisting problems becomes more challenging in such a situation.

We feel that an individualized treatment plan is the most effective thing we offer. It all starts with the first orthodontic consultation. This is when we carefully evaluate a patient's mouth to uncover their need for orthodontic intervention.

## COMMON EARLY ORTHODONTIC TREATMENT

There are several conditions that can benefit from early orthodontic treatments.

#### Crowding

#### Did You Know?

- » You can check for crowding of teeth at home. Simply look at your child's upper and lower front teeth.
- » If there is crowding in the upper and lower front adult teeth, it will only exacerbate as more teeth try to come in.

Children usually lose their baby teeth in the same order the teeth came in. If a patient does not lose baby teeth within what is considered the normal time frame and order, there are several issues that can require orthodontic intervention. Crowding of teeth may occur if the baby teeth are lost too soon. If baby teeth fall out too late, the permanent teeth may come in crowded and also be crooked. If a permanent tooth comes in before a baby tooth is lost, it can create crowding. Although crowding isn't an emergency, it is something that can affect the smile or bite of a child. If a child loses a tooth due to trauma or decay, early orthodontic treatment can include using a spacer to make sure that the permanent tooth comes in correctly.

#### Overbites

#### Did You Know?

- » Overbites can be corrected completely with braces.
- » Not treating an overbite early on can require surgical correction.

While there are overbites that are hereditary, others are caused by malformed jaws. An overbite is a malocclusion and it occurs when the upper jaw is longer than the lower jaw. This is because of an underdeveloped lower jaw, or an over-developed upper jaw. Factors like thumb-sucking, tongue thrusts and prolonged

bottle-feeding can result in overbites. Other habits like biting nails and chewing eraser-heads are also know to contribute to overbites.

While not all patients with overbites have problems, some with severe cases might suffer from jaw pain, poor dental and oral health, sleep apnea and other breathing difficulties, speech issues and low self-esteem.

#### Underbites

#### Did You Know?

- » One in 10 Americans is born with an inherited underbite.
- » An underbite can be corrected completely with early orthodontic treatment.

An underbite is a malocclusion in which the lower teeth overlap the upper teeth. This typically occurs when the lower jaw is longer than the upper jaw. The severity of an underbite can range from mild (where the two rows of teeth almost meet) to severe (where the teeth do not meet at all). The main cause of an underbite is a misalignment of the lower jaw. Some patients are born with it; others inherit it; while yet others may develop an underbite because of poor dental care and bad habits.

Underbites don't always cause problems. However, even if your child doesn't suffer from a speech impediment or sinus problems, they may be subject to teasing from other children. Early orthodontic treatment involves taking x-rays and a mold to determine the cause of the misplaced bite. Then, treatment is customized for each child.

Children with underbites typically have trouble eating and speaking. Some might also suffer from chronic jaw pain, headaches and ear aches, tooth decay, halitosis, sleep apnea and other breathing difficulties.

#### Crossbites

#### Did You Know?

- » Crossbites can result in migraines.
- » Crossbites can be treated using a wide variety of appliances like expanders, braces and Invisalign.

A crossbite can be either anterior or posterior. Essentially, it means that when your child bites down, their teeth don't line up properly. A crossbite can cause dental problems and problems for your child's self-esteem. It's possible that an untreated crossbite can cause your child's face to develop in an asymmetrical fashion. It can also cause gum disease and chronic pain in the jaw, neck and shoulders. A crossbite can be corrected with early orthodontic treatment and can save your child from a life full of chronic pain and low self-esteem.

The upper jaw behaves like a door frame that accepts a door closing into it. A small upper jaw might affect the way the lower jaw is able to close into it. If your child has such a jaw, it might develop into a <u>crossbite</u>. A unilateral crossbite is a problem any orthodontic will prefer to see prior to age 7. It is treated with a simple appliance that corrects the width of the upper jaw while allowing the lower jaw to re-center itself. It, therefore, contributes to more favorable future growth.

#### Open Bites

#### Did You Know?

- » Poor resting tongue positions can contribute to open bites.
- » If a patient has finished growing, then surgery will likely be the only means to correct an open bite.

Prolonged thumb sucking can cause an open bite. An open bite is a term used to describe when the upper and lower teeth are unable to make physical contact with each other. An open bite is known as maxillary impaction. The objective of early orthodontic in such a case will be to correct the space between the front and back teeth when your child bites down.

Sometimes an open bite corrects itself, but many times it can only be corrected with orthodontic care. In severe cases, surgical orthodontics might be the only way to correct the open bite. During surgery, bone from the upper jaw is removed and placed higher in order to help correct the problem. The lower jaw is repositioned as well.

#### Overjets

#### Did You Know?

» Overjets are caused when the jaws and teeth are not aligned properly.



» You can tell if your child has a big overjet by checking to see if they can close their mouth properly.

Another serious concern is a big overjet. An overjet is when the upper and lower central incisors overlap. This is another issue that has a better chance of being corrected if treated early. Starting treatment early gives your orthodontist the time needed to help the lower jaw grow forward or push the upper jaw back into a better position.

## STAGES OF EARLY ORTHODONTIC TREATMENT

#### Did You Know?

- » Phase I of orthodontic treatment is more preventive and focuses on instilling in children good dental and oral habits.
- » Phase II of orthodontic treatment typically involves braces.

Early orthodontic treatment is usually done in stages. These stages are referred to as Phase I and Phase II. In Phase I, treatment focuses on correcting your child's bite and teaching your child good oral hygiene. Preventing or lessening a dental issue helps guide the development of the child's jaw, guides permanent teeth into their proper place, and could also provide a positive boost to your child's self-esteem. Phase I is all about beginning the corrections that need to occur to help minimize the risk of lifelong dental issues.

Phase II occurs a little bit later into the early orthodontic treatment. This involves the use of braces. The purpose of braces is to help guide your child's teeth into the proper position and stabilize them. Phase II often doesn't begin until the child is between 11 and 15 years of age. By this time, their permanent teeth have come in. One of the benefits of waiting until this age for braces is that orthodontists are able to work with the child's bite and teeth placement during the time they are most likely to grow. This can actually help lessen the amount of time that the child needs to have braces.

# How Your Child Will Benefit from Early Orthodontic Treatment

#### Did You Know?

- » In the year 2015, over 1 million Americans had braces.
- » Braces have been around for nearly 300 years.

So, just how do you know if your child would benefit from early orthodontic treatment? As a parent, you may see some indications in the way that your child's smile looks or if they're complaining of pain in their jaw. Ultimately, the best way to know if your child would benefit from early orthodontic treatment is to take your child to a dental professional. Dentists can take an x-ray and examine your child's oral health. They can also refer you to an orthodontist who specializes in early treatment. The orthodontist can examine your child and make the determination of whether your child would benefit from early treatment. Not all children need early treatment. This is why it is important to seek out the expert advice of an orthodontist who specializes in treating children.



## CHOOSING THE RIGHT ORTHODONTIST

Choosing the right orthodontist can be daunting. You should always do your homework and make sure they have a great track record. It's important to choose an orthodontist with experience in early treatment in order to ensure that your child's assessment and potential treatment is the best it can possibly be.

Apart from that, you also ought to call different orthodontists' offices and ask about what insurance they accept. A good orthodontist will also be kind enough to offer you a free initial consultation, at the end of which they will be able to tell you how much your child's treatment will cost, how much your insurance will cover, and what your out-of-pocket expenses will be.

#### AFTERWORD

#### Individual Treatment Plan

It is our comprehensive approach to diagnosis and treatment planning that leads us to individualized treatment. Not all patients' problems are the same. An orthodontist must identify a systematic way of going analyzing a patient's orthodontic records, clinical examination, and orthodontic records in order to determine potential pitfalls over the treatment process.

The comprehensive approach to diagnosis with a Zero Base system, which leads to individualized treatment, would include an examination of a child's airway, for example. If some of those airway issues are left untreated, a positive dental result may not be stable. This epitomizes what we refer to as morphological success with functional failure. The Zero Base orthodontic philosophy is a comprehensive approach to diagnosis and treatment. Not all patients are treated the same way; they have different problems that need to be addressed through different means. We use this comprehensive approach to individualize treatment so that we achieve ideal occlusion for all of our patients.

#### Importance of Education

It is important to educate patients in our practice because they need to thoroughly understand a diagnosis, their treatment plan, and the objective of orthodontics. Most orthodontists do not make patients aware of the real goal and objective of an orthodontist: ideal skeletal and dental relations. We treat contributing factors to poor dental-facial development so that our patients' results are a stable, functional, and aesthetically pleasing bone structure. This challenge requires altering seemingly immobile elements, such as the placement of the teeth and the positioning of the jaw. If an orthodontist does a good job, her or his patients will achieve the aesthetic result that they want. Appearance, of course, is one of several priorities; our practice strives to produce stability and performance through orthodontic work.

There is little reason to make compromises in orthodontics, especially in pediatric orthodontics. An orthodontist is responsible for educating the patients about this; aesthetically pleasing results are valuable, but there are more important things to consider during orthodontic treatment.

# ORTHODONTISTS ASSOCIATES OF WESTERN NEW YORK

At Orthodontists Associates of Western New York, our reputation as a leader in orthodontic care is based on one thing: Making a Healthy and Beautiful Smile.



Our doctors and professional staff are committed to delivering the highest quality patient care. We proudly provide orthodontic services for children, adolescents, and adults, specializing in early treatment for children. Doctors Dominic A. Colarusso, Jr., Steven J. Hietanen, and Andrew J. Dusel have equipped their offices with cutting-edge technology and computerized systems to provide excellence in diagnosis and treatment planning.

We believe that a beautiful, healthy smile is an asset to any patient. This is because a beautiful smile helps promote self-esteem, self-confidence and self-image. Orthodontic treatment brings the face, lips and teeth into proper proportion, as well as correcting problems with the occlusion (the way the teeth come together when the jaws close). Well-aligned teeth are easier to clean, creating better overall oral hygiene, thereby increasing the chances that your beautiful smile will last a lifetime. Furthermore, studies have shown that a healthier mouth can lead to a healthier YOU!

Early orthodontic treatment has its advantages. Managing dental/facial growth and development leads to a nicer-looking, more individualized orthodontic result. We are also better able to identify contributing factors to poor dental/facial growth and development. If left untreated, these can contribute to relapse after treatment. In fact, we prefer to be interceptive and proactive in our approach to orthodontics, rather than taking the traditional reactive approach.