

Dear Friends

Dear Friends,

I recently had a second surgery on my right knee to help alleviate some pain and inflammation that I was consistently dealing with. Both surgeons were the best around and everything went as well as expected during and after surgery but the truth is my knee will never be the same. It still gets sore, it still gets inflamed, (though not nearly as bad as before) and it still doesn't have the same spring it use to. It is something I will deal for the rest of my life and in all likelihood will need future surgeries to remove worn out tissue or even replace it all together.

Most of our health care works this way, focused on treating symptoms or damage to the body rather than preventing them. Dentistry is no different with a few exceptions, like orthodontics. The truth is, the fix is rarely, if ever, as good as the original. In some cases this is unavoidable, such as a traumatic sports injury to the knee. In other cases, such as gum and bone loss around teeth, dental decay, worn down teeth, worn and painful jaw joints, can often be prevented before they occur.

At Paventy Orthodontics we are passionate about the benefits and positive impact orthodontic treatment can have. If you are looking for an orthodontist please give us a look. I hope you enjoy the report.



Sincerely,
Dr Joseph Paventy



1 FINANCIAL SAVINGS

“You could save on average \$1350 per year for the rest of your life by investing a fraction of that amount into orthodontics.”

Americans spend over 100 billion dollars per year on dental procedures. Those with the most dental needs spend on average over \$1600 per year per person on dental care while people with healthy mouths can expect to pay closer to \$250 on dental expenses. What if you knew you could save on average \$1350 per year for the rest of your life by investing a fraction of that amount into orthodontics for yourself or your child? Assuming dental prices stay the same (we know they will go up) for a 12 year old that adds up to \$94500 in savings versus the average cost of braces \$4500 to \$6000. Add in the rising cost of dental care over a lifetime and that savings will easily be into the hundreds of thousands of dollars. So far we've only addressed the cost in dollars but when you factor in pain, missed work, inconvenience, lengthy dental visits and the social/emotional impact of having crooked unhealthy teeth and jaws the costs in relation to the investment of having orthodontics to straighten and align the jaws and teeth is astronomical.

The question you might be asking is, how does orthodontics prevent all this? It is a common misconception that having orthodontic work is solely for the purpose of smile cosmetics. Having straight teeth is not only a cosmetic necessity for the smile, but there are numerous other benefits for patients who undergo orthodontic treatment such as facial symmetry, improved jaw development, improved airway and breathing, facial esthetics, less abnormal wearing down of teeth, improved periodontal support (gums and bone around the teeth), and improved oral hygiene. This holds true for adults as well. While some damage may already be done to the teeth and gums, orthodontics can prevent future or continuation of dental problems that can be both costly and unsightly. For children, when treated in a timely manner most of these dental problems can be prevented all together. Let's dive into some of the specifics of how orthodontic treatment prevents future dental and jaw problems.



2 STRAIGHT TEETH AND HYGIENE

“Crowded teeth serve as reservoirs for bacteria and plaque to grow.”

Crooked teeth or teeth with large gaps are harder to keep clean for both patients as well as dental professionals. Often, bacteria will build up in hard to reach tight areas. Crowded teeth serve as reservoirs for bacteria and plaque to grow. Making it much more difficult for saliva, the lip and tongue to naturally remove plaque. It also makes it much more difficult to remove with a toothbrush and floss. This leads to gum disease, heavy staining or cavities. The need for periodontal treatments and fillings may arise if this happens. Gaps in the teeth can lead to the same problems. Food and bacteria often get packed under the gum line next to the teeth with spaces. This again can lead to gum disease, bone loss and cavities. When teeth are properly aligned, it is easier for you and your hygienist to access and remove the harmful bacteria. This results in healthier gums that “fit” around your teeth better as well as an overall healthier looking smile.

This 12 year old brushed her teeth for about two minutes before these picture were taken. If you look closely you can see fuzzy areas in-between rotated teeth, which is dental plaque, and gingivitis around the lower right canine. These areas have been shielded from her tooth brush due to the crowding and rotations of the teeth.



3 JAW ALIGNMENT DECREASES WEAR ON THE TEETH, JAW JOINTS, AND YOUR WALLET.

Teeth and jaws that are not properly positioned do not all hit or bite together evenly. This leads to abnormal wear of these teeth. You may notice certain teeth begin to look shorter compared to others or may even crack or chip from the pressure. The jaw or TMJ may also begin to feel painful from the unbalanced bite. If this begins to happen, expensive bite splints and crowns are often used to help mask the problems. Correcting the bite with braces so that all teeth are evenly hitting will help prevent abnormal wear of your teeth and help protect your jaw joint. Along with retainers orthodontics is a lasting solution to these problems. To the right is a picture of a

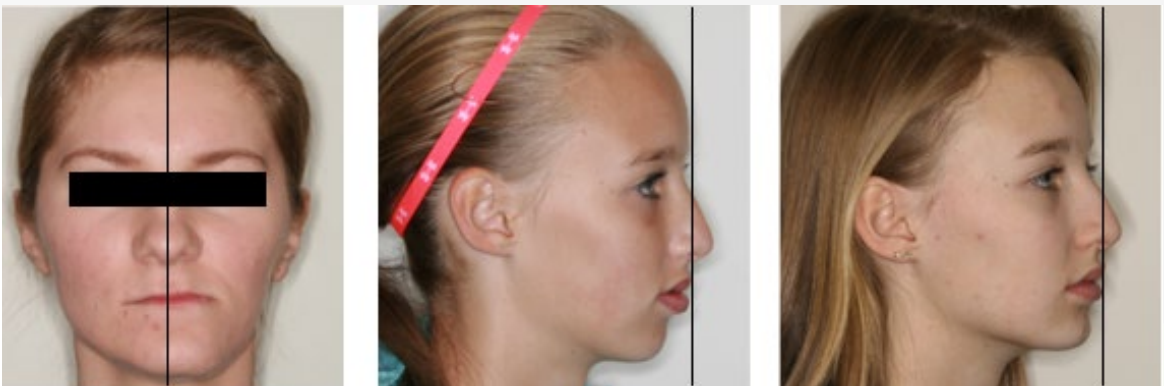


40 year-old patient with severe wear on the lower teeth and a fractured left lateral incisor. All 8 of the front teeth have been severely compromised due to the bite. This patient is facing the prospect of over \$20,000 in dental work to restore his smile, health and function of his teeth. One of the most common problems seen is a deep overbite, or excess vertical overlap of the front teeth. In the picture below the front incisors completely overlap the lower teeth. This leads to more wear and pressure on these teeth. At 11 years-old this patient (below) has some chipping on the edge of his upper teeth and uneven wear on the lower teeth. If left untreated this process will continue and he will have severely worn front teeth as an adult. You can also see the gum inflammation due to the crowding of the lower incisors.



ORTHODONTIC TREATMENT IMPROVES FACIAL DEVELOPMENT

Facial symmetry and proper jaw development are another important benefits to orthodontic treatment. A trained specialist in orthodontics will be able to evaluate facial symmetry and balance for any problems. Left untreated, jaw alignment issues can become more problematic later in life. The patient to the right had a mismatched width of her upper and lower jaw, something easily fixed as a child. After years of mismatched jaws she has developed a severe facial asymmetry that will likely only improve with surgical correction. Proper jaw development and symmetry are often more critical to cosmetic appearance than aligning the teeth. They also contribute to better function of the teeth and less problems related to the Temporo-mandibular joint (TMJ). Orthodontist have many tools at their disposal to positive affect jaw development depending on the problem. Such as a Rapid Palatal Expander (RPE) and a Mandibular Repositioning Appliance (MARA). The patient below had a MARA appliance along with braces to help position the lower jaw forward.



5 A BREATH OF FRESH AIR

One of the least know and most impactful benefits of certain types of orthodontic treatment is an increase in airway volume. This making breathing especially at night during sleep easier. Increasing the upper airway has been a more recent topic of study in dentistry and orthodontics. A recent controlled research study has shown a 47.5% increase in total posterior airway volume, a 42.3% increase in transverse dimension of the posterior airway behind the tongue, and a 21% increase behind the nose. The most constricted area of the posterior airway showed an increase of 76.7% in this study with certain orthodontic appliances. There are many institutions documenting the improvement in airways with rapid palatal expansion and anterior positioning appliances like the MARA. Increased airway has obvious benefits in combating problems such as allergies, asthma, snoring, and sleep apnea. At Paventy Orthodontics we favor these types of appliances over others for their positive effect on the airway.

As you can see orthodontics has numerous benefits to patients in addition to cosmetic improvements. Cosmetic improvements are difficult to quantify and are different for each person. For some patients this is minor for others it can be life changing. Regardless, both types of patients will have much healthier mouth and jaws that should last them a life time. Braces or Invisalign may seem like an expensive treatment option initially, however avoiding future growth and oral health problems along with expensive dental work makes straightening your teeth a valuable decision. The added confidence and beauty of straight teeth makes orthodontics a clear winner for most patients.

