

Orthodontic options



GERBER DENTAL GROUP
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Orthodontics have been used for many years to straighten teeth, close spaces and realign crowded teeth. It's always been considered primarily a cosmetic option however it is now being used to stabilize the tooth position after TMJ treatment and address underlying airway issues as well. Orthodontics involves the movement of teeth and there are a number of different options when it comes to orthodontic treatment. Not all the options are suitable for everybody so your dentist needs to carefully assess your teeth, gums and bone before recommending the best options for you. An i-CAT scan, diagnostic models and a thorough examination are all part of the initial diagnostic phase of orthodontic treatment.

Functional orthopaedics

Jaw development plays a very big role in final tooth position. If the jaw is too narrow, there is insufficient space for the adult teeth to come through so crowding problems often occur. Dummies, thumb sucking, mouth breathing and airway issues can all cause problems with normal jaw development. The tongue hitting the roof of the mouth helps to develop the jaw into the correct width, so children who breath through their mouth or suck their thumb often have a jaw which develops in a narrow, elongated position because the tongue doesn't guide the bone growth correctly. Nasal congestion and mouth breathing is very common in children who suffer allergies and asthma but it also occurs in people who have no apparent risk factors. The altered jaw development can be seen in children as early as 4 or 5 years of age and while their baby teeth may look fine, it isn't until the permanent teeth start coming through that most parents notice the problem.

Functional orthopaedics involves placing a plastic removable appliance or plate into the mouth. The plate is split in the middle and a key is used to turn the screw each day or each few days. This in turn enlarges the plate very gradually and encourages the bone to develop laterally, increasing the bone width and allowing space for the teeth to fit normally. A small wire at the front of the plate can also be used to help guide the teeth into the desired position. It is generally a painless treatment option, however compliance in wearing the plate is the key issue. The plate must be worn and turned or the treatment will not work. Once the desired width is achieved, the plate is usually replaced with a "trainer". This trainer is similar to a mouthguard and it is worn at night to help hold the bone development and to assist in breaking the mouth breathing or thumb sucking habit that caused the problem in the first place. Without the trainer, some relapse usually occurs. Treatment times can vary from 6 months to a year depending on the amount of tooth movement required.

In situations where patients continue with mouth breathing, your dentist may recommend a referral to an ENT specialist to further assess the tonsils, adenoids and sinus passages. Once these airway issues are address, treatment usually progresses very well and many patients finds that their general health and sleep patterns also improve significantly.

Functional orthopaedics does not completely eliminate the need for fixed braces, however it significantly reduces the time they need to be on and the amount of tooth movement that is required. It also normally eliminates the need to extract teeth to create space because the space is created through the jaw bone development.

This treatment is used commonly in children, however it is also appropriate for most adults. Adults who have an underdeveloped jaw are likely to have also been thumb suckers or mouth breathers as children, and while the thumb sucking usually ceases, mouth breathing is still very common. Adults usually find that the treatment takes a little longer than in children simply because the rate of bone growth in children is much quicker. Children as young as 6 can start functional orthopaedic treatment and the trainer can be used to help guide the position of adult teeth. Again, compliance is the key, so it is usually best to wait until you are confident that the child will wear the appliance.

Fixed orthodontics

Fixed braces are what most people commonly associate with orthodontic treatment. Stainless steel brackets and wires are used to move the teeth into alignment. Changes are made to the wires every few weeks which in turn alters the forces used to move the teeth across, up, down and around. Before applying the fixed braces, it is necessary to ensure that there is sufficient space to move the teeth into, so traditional orthodontics often requires the extraction of 2, 4 or 6 teeth to allow the space to be created. At Gerber Dental Group, we generally don't recommend tooth extraction, but prefer to use functional orthopaedics to create the space needed. As an added benefit, functional orthopaedics also addresses the underlying airway issues which is not done with extraction orthodontic treatment.

Fixed orthodontics can take anywhere from 6 months to 3 years to complete depending on the amount of tooth movement required. It is generally not commenced until most of the adult teeth are through—usually around 10 –12 years of age. The brackets are fixed in place, so there are no issues with compliance, however dental hygiene is extremely important to prevent decay and staining on the teeth. Braces create food traps for bacteria and in turn, decay. Many patients also find that they experience some general discomfort for 2 or 3 days after the braces are tightened each visit. This is because the forces used are quite strong and the ligaments around each tooth are being moved more than they normally would. The roots of the teeth are also moving in the bone and this can cause some general discomfort. Simple analgesia such as panadol or neurophen is normal adequate to relieve the discomfort.

At the completion of fixed orthodontic treatment, most patients will need a retainer to prevent relapse and adverse tooth movement. This retainer may be a plate worn at night, or a small wire bonded to the back of the teeth.

Invisalign

Invisalign is an orthodontic treatment using clear plastic retainers to achieve tooth movement instead of fixed braces. It uses the latest advances in computer 3-D technology to carefully translate your dentist's instructions into a series of precise customised aligners. Each aligner is worn for about 2 weeks and gradually moves the teeth until you have reached your desired result. Because there are no metal brackets and wires, Invisalign is comfortable and removable so brushing, flossing and eating are no problem. Compliance however is the key issue. The retainers must be worn or the treatment will not work.

Invisalign does not have the ability to apply strong forces for excessive tooth movement so it is really only suitable for patients who need a small amount of movement. It can however be used in conjunction with functional orthopaedics and/or fixed brackets to achieve a great final result. It is also being used commonly for patients who have had fixed orthodontics in the past and who have experienced relapse or tooth movement over the years.

Invisalign is a great alternative for patients who don't want to wear fixed braces and who don't want to have natural tooth structure removed and ceramic crowns placed in order to achieve straight teeth.

When it comes to achieving straight teeth, there are a range of options and your dentist will advise you which option is most suitable for your situation.

