

## Can my teeth be straightened without braces?



We are often asked whether teeth can be straightened without braces and the simple answer is yes. That being said, there are many factors and limitations to consider. One of the reasons for the simple answer “yes” is that tooth movement is the result of an applied force for a certain duration.

What is important to tooth movement is the application and direction of that force. We use many appliances that work with the body’s physiology to move patient’s teeth. Some appliances utilize forces that act indirectly upon the teeth without being attached. These are removable appliances and can include: a tongue depressor to move a single tooth, retainers with springs to move multiple teeth, and Invisalign® aligners to move all of the teeth. Alternatively, some appliances are attached to the teeth, such as braces, and utilize forces which act directly on the teeth to which they are attached.

As you can imagine, if a force is indirectly applied to the tooth, there is less control and therefore can be a great limitation to the expected result. With fixed direct forces, teeth can be controllably and reliably moved in any direction, creating a desirable and expected result.

For the orthodontist, the root is the root of the problem, in that the foundation of the teeth, the roots, need to be aligned to help maintain the stability of the bite. Indirect forces do not control the movement of the roots, but direct forces do control root movement and position. If indirect forces are used to align the teeth, there needs to be a larger emphasis on post-treatment retention and it is usually best to use fixed bonded retainers to maintain the final position of the teeth.

Generally, for early treatment or limited partial treatment, it can be acceptable to move teeth via indirect means. It is important to be aware that with removable appliances and indirectly applied intermittent forces, the amount of tooth movement is limited and slower, and the final position of the teeth is less stable since the root position cannot be controlled. When full treatment is prescribed for all of the teeth to be straightened and have a properly meshing bite, generally full fixed appliances are best.

So do you need braces to completely straighten all of your teeth...you will understand why the answer is YES!

