

Fixed Palatal Expansion

Fixed palatal expansion is one of the most common ways to correct anterior crowding and posterior crossbites in the growing patient.

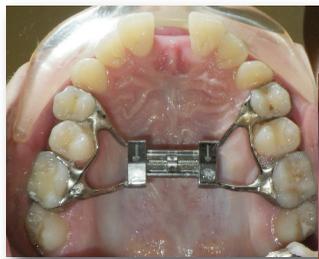
Palatal expansion is successful if the growth plates or sutures in the center of the palate have not fused. Fusion of the midpalatal suture usually occurs between 14 and 16 years of age.

A fixed palatal expander is attached to the upper teeth with bands around the permanent first molars and permanent first bicuspids.



To expand the appliance, we use a key that slides into a hole in the screw mechanism. We show you how to turn the screw and ask that you expand the appliance twice a day (morning and night) for approximately 4 weeks. After we have achieved full expansion, the appliance remains in the mouth for another 3-4 months. Because we expect some relapse, we often over-expand the palate.

For older children, with nearly all of their permanent teeth present, the fixed appliance provides rapid palatal expansion.



The most visible sign that the expander is working is the appearance of a space between the upper front teeth. This is a desirable effect. The space occurs as the two halves of the palate separate.



Once you stop expanding the appliance, the space between the upper front teeth usually closes on its own over the next few months. This occurs because of elastic fibers that attach to the teeth and the surrounding gum tissue causing the teeth to drift back towards their original positions. Upon removal of the

expander, braces are placed on all teeth in both arches for 21-24 months.

For younger children, with a combination of permanent and primary teeth, a compact fixed palatal expansion appliance is used. The smaller fixed expansion appliance is more comfortable for the younger patient and provides slower expansion with activations taking place every other day for 3 months rather than twice a day for 4 weeks. Once expansion is complete, this appliance stays in the mouth for an additional 6 months to hold the correction. Early palatal expansion for younger children may include braces on the upper front teeth for 9-12 months.



While there may be some minor discomfort when the expander is placed, palatal expansion is relatively painless. Patients often tell us they feel pressure on the teeth, on the roof of their mouth, behind the nose and between the eyes when they expand the appliance. This pressure fades away within minutes.

You can also expect your child to speak differently for a few days and you may hear them slurping as their mouth may create extra saliva after initial placement of the appliance.

To make the first few days more comfortable for your child, you may want to find fun foods for them to eat that do not require a lot of chewing.

