

Making the Upper Jaw Wider

A palatal expansion appliance can markedly increase the width of the upper jaw. A wider jaw allows upper and lower teeth to fit together. This permits teeth and jaws to function well and contributes to a broader, more attractive smile. For some patients, expansion may prevent the need for extraction of permanent teeth because space is created for permanent teeth.

Your child's orthodontist has determined that palatal expansion is necessary for your child. A narrow upper jaw may interfere with the fit of upper and lower teeth. Without correction, this may affect your child's appearance and may contribute to difficulties with biting, chewing and speech.

How is the appliance cared for?

The expander should be brushed whenever teeth are brushed. Patients should rinse the mouth with water after eating or after drinking a beverage with sugar. Removable expanders should be brushed and rinsed each time the appliance is taken out of the mouth.



Your orthodontist, a member of the American Association of Orthodontists, sincerely thanks you for placing your confidence in him/her to treat your orthodontic problem. If you have any questions or concerns in the future, please consult your orthodontist.

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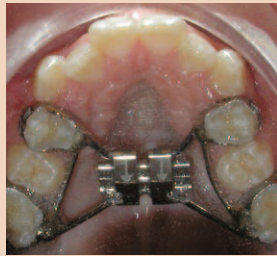
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Palatal Expansion

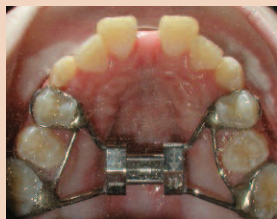
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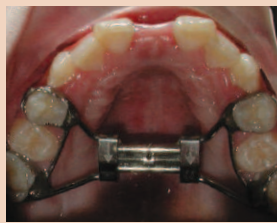
Palatal Expansion



Placement of expander



Two weeks later, half of expansion complete



Four weeks later, expansion complete



Front view, expansion complete



Braces close the spacing and align the bite creating a healthy, beautiful smile

Palatal expansion is a combination of tooth movement and jaw expansion. It works by widening the two halves of the upper jaw, called the palate. The two halves are joined together by a 'suture' in the middle of the roof of the mouth. The orthodontist custom makes an expander for each patient. An expander can be fixed or removable. The expander is attached to the upper back teeth and eases the suture apart, which makes the upper jaw wider. As the jaw expands, new bone fills in between the two halves of the palate. This process is called distraction osteogenesis. Expansion can take a few weeks to a few months, depending on the amount of expansion required for an individual patient.

A rapid palatal expander (RPE), also known as a rapid maxillary expander (RME), is generally worn for four to six months. During the first few weeks of wear it is necessary to expand (activate) the appliance. Depending on the appliance, the RPE may require activation with a special key or wrench. Your orthodontist will provide detailed instructions on how to activate the appliance and operate it properly to achieve the desired results.

Frequently Asked Questions

How do I know palatal expansion is right for my child?

Palatal expansion improves the way the upper and lower jaws and the upper and lower teeth work. It widens the jaw so there is sufficient room for permanent upper and lower teeth to come in. Expansion can make the final smile broader and more attractive. Without expansion, and depending on the problem, permanent teeth may not have enough space to come in; or the lower jaw could grow out of proportion, which could require corrective surgery as an adult. Left untreated, a narrow palate can lead to excessive wearing of the teeth or the need for extensive dental work as an adult.

Your orthodontist is in the best position to advise you on your child's need for expansion and which type of expansion appliance is best to correct your child's problem. Expansion is easiest and results are most stable when performed on the growing child or teen. Your orthodontist has the training and clinical experience necessary to diagnose and treat your child's orthodontic problem. Orthodontists must complete college requirements, graduate from dental school and successfully complete a minimum of two academic years of study in an orthodontic residency program accredited by the American Dental Association Commission on Dental Education. Only those who have completed this rigorous education may call themselves "orthodontists," and only orthodontists may be members of the American Association of Orthodontists.

What is the best age for palatal expansion?

Age alone is not the best predictor when a palatal expansion appliance should be used. Ideally a patient should still be growing. An orthodontist can estimate skeletal maturation and determine whether a patient is still growing by analyzing the growth plates on a hand-wrist x-ray. Patients who have completed growth may require surgically-assisted rapid palatal expansion.



Your orthodontist will explain how to activate your child's appliance

How is the appliance activated?

Your orthodontist will recommend the type of expansion appliance necessary. Different appliances require different activation techniques. Follow your orthodontist's instructions on how to expand your child's appliance and how often to expand it.



Examples of bonded and banded fixed expansion appliances

What can I expect?

It may take a few days to get used to a palatal expander. Chewing, swallowing and talking may be awkward at first. The mouth and nose may be sore or may tingle. Some patients report a slight headache. Talk with your orthodontist about over-the-counter analgesics to relieve discomfort.

Even after a few days of expanding, you may notice space between the front teeth. This is a sign the appliance is working and the palate is being expanded.

Most patients require full orthodontic treatment (braces) following palatal expansion.