

# Rapid Palate Expander (RPE)



**The Rapid Palatal Expander (RPE)** is a popular orthopedic procedure using a fixed appliance to separate the two maxillary bones at the mid-palatine suture.

**Slow palatal expansion** may also be achieved with an RPE. The patient is instructed to turn the appliance 1 turn twice a week. Dental-alveolar compensation occurs as the molars slowly move transversely without separation of the mid palatal suture. Orthodontic treatment typically follows.

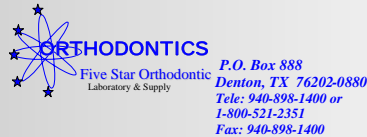
Rapid expansion is obtained over a two to three week period by means of turning the expansion screw once a day. This can only be done when the patient is still growing or surgery is involved to separate the two halves of the mid palatal suture.

This appliance uses an all-stainless steel framework. The expansion screw is positioned high in the palate for greater patient comfort. The screws come in 8, 11, and 13mm sizes. Bands are placed on the first bicuspids bilaterally and both first molars. Designs also include rests bonded to the occlusal surface of the first primary molars. This popular design is useful in mixed dentition and eliminates the path of insertion problems that occur when four bands are used.

#### **What the Patient can expect:**

Results may vary from person to person, most usually feel slight pressure on their front teeth. As the patient turns the RPE using the key, a diastama develops between the front two teeth. Some may notice a larger space while others do not notice a space at all. It takes a usual of 3 to 5 days to adjust to eating and speaking after first receiving the rapid palatal expander.

**Hint:** Placing the appliance: Do not fully seat the first band, rather in equal increments, seat all bands 1 or 1.5 mm's at a time for easy appliance placement without any binding.



#### **Helpful hint:**

After the patient has achieved the desired expansion, place adhesive on the threads of the screw to prevent any unwanted unwinding or thread brass separating wire through the slots and around the support bar and tie it off. Then wait for the Transseptal fibers to close the diastama before straight wire treatment.

#### **What do I need to do to get started?**

- 1.- Placement of separators or spacers. This takes about 10 minutes. Spacers create enough space around each tooth for the placement of orthodontic bands. The separators may make teeth tender. Ibuprofen or Tylenol is excellent, and should be taken before discomfort starts. The next visit will be scheduled in about a week.
- 2.- Fitting of orthodontic bands and impression. Impressions should be upper models from a heavy body alginate. The models need to be free of bubbles, distortions, or voids. You can use PVS. The Doctor needs to remove all brackets and bends to ensure the teeth are clean prior to impression. Please check and wrap models individually before sending them. The following visit will be scheduled in 2 to 3 weeks.
- 3.- Placement of the RPE. This takes about 30 minutes. The next visit will