

Maxillary Palatal Expansion

Maxillary palatal expansion or widening of the palate is a procedure that increases the width of bone in the upper jaw. This can be part of a definitive correction in both straightening teeth, and helping to improve patients with airway problems and sleep-disordered breathing.

Frequently Asked Questions

1. What is the indication for maxillary palatal expansion?

People whose upper jaw development is too narrow, which can lead to life-long dental and general health problems. (Figure 1)†

2. What are the causes of too narrow a palate developing?

Causes are multifactorial and are influenced by the environment and genetics. Risk factors that have been identified include:

- Sucking on a pacifier or fingers/thumb past age two, mouth breathing, a low tongue.
- Position in the mouth, pre-term birth, lack of breast feeding and a short lingual frenum.

3. What are the benefits of maxillary palatal expansion?

- A better, healthier smile allowing room for adult teeth without crowding.
- Improved facial development for both appearance and airway health.
- More room for the tongue to function properly, thereby assisting in proper jaw growth, breathing, swallowing and speaking.
- In children, better sleep and cognitive development, less nasal resistance and earaches.

4. When should maxillary palatal expansion be carried out?

- The bone in the palate is usually fully formed after adolescence. Therefore, ideal treatment is typically before puberty necessitating early assessment and treatment in children.
- Traditional palatal expansion is nearly impossible in adults; therefore, more advanced maxillary jaw expansion techniques must be used.

5. How is maxillary palatal expansion accomplished?

- Orthodontic appliances are fitted on the teeth and apply forces to the teeth and, where required, the upper jaw to assist in widening the palate. (Figure 2)
- If the palate is fully formed, mini implants may be placed in the palate so that direct forces can be applied to the palatal bone to assist in expansion. (Figure 3)

6. What are possible side effects of maxillary palatal expansion?

- Movement of teeth outside of their normal position, with loss of gum and bone.
- Possible changes in the bite.
- If mini implants are placed: post-operative swelling, bruising and pain may occur.

7. What happens if maxillary palatal expansion is not performed during orthodontic treatment?

- Conventional orthodontics working within the limitations of a narrow jaw but may not provide an ideal result since it may:
 - not increase the width of bone in the upper jaw enough to provide space for straight teeth, and proper function of the tongue or airway.
 - potentially result in higher incidences of recession and teeth moved outside the bone.
 - have a higher possibility of orthodontic relapse.
- Orthodontic treatment may require extraction of teeth if they erupt out of position or crowded, resulting in potentially unhealthy consequences.



Figure 1 – Narrow palate

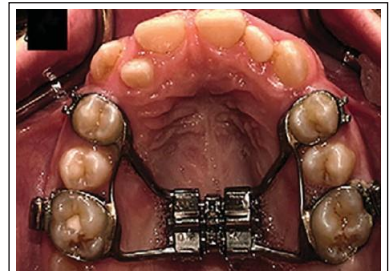


Figure 2



Figure 3