

TECHNIQUE CLINIC

Transpalatal Elastic for Class III Surgical-Orthodontic Treatment

The purpose of presurgical orthodontics in Class III surgical cases is usually to improve the labial inclination of the maxillary incisors and the lingual inclination of the mandibular incisors. During mandibular anterior repositioning, the maxillary molars tend to incline buccally, necessitating arch constriction before surgery.

Some clinicians use a narrow archwire to constrict the maxillary arch, but such treatment can take a year and a half or more. This can delay surgery or require occlusal adjustment with extensive shaving of the lingual cusps of the tipped maxillary molars.

We have devised a simple transpalatal elastic that can reduce maxillary arch width more quickly and efficiently. An .018" × .025" archwire is first used for alignment of the maxillary arch. Hooks are then soldered to the archwire between the second premolars and first molars, and a heavy 3/8", 3 1/2oz elastic is stretched across the palate (Fig. 1). The hooks have the added advantage of being usable for intermaxillary fixation in surgery.

The patient can easily remove the elastic for eating and then replace it with a new one. Minor tongue irritation may be experienced, but this tends to



Fig. 1 Heavy 3/8", 3 1/2oz elastic stretched between hooks soldered to archwire between second premolars and first molars.

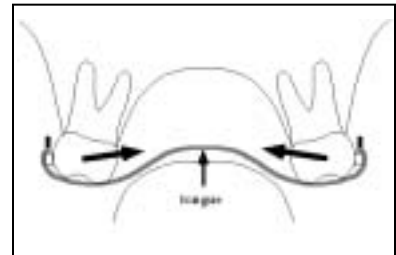


Fig. 2 Tongue pressure on transpalatal elastic prevents molar protrusion while constricting arch width.

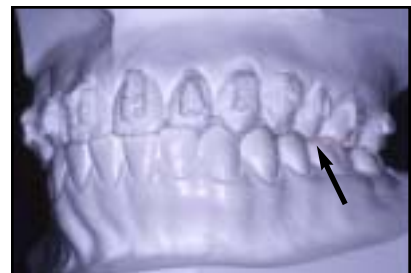


Fig. 3 A. Patient before treatment. B. Three months later, note remarkable change in posterior arch width (arrow). (Same lower cast was used for comparison.)

disappear within a week. Although we have seen no significant effect on speech, the elastic can be removed if necessary for singing or public speaking.

The pressure of the tongue on the elastic prevents protrusion of the molars (Fig. 2) while constricting the maxillary arch within two or three months (Fig. 3).

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To avoid concomitant flaring of the maxillary anterior teeth, Class II elastics should be worn in conjunction with the transpalatal elastic.



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