

TECHNIQUE CLINIC

A Modified Transpalatal Arch

Studies have found that 90-95% of all Class II malocclusions have mesial rotations of the upper first permanent molars.¹⁻² Correcting these rotations can gain as much as 1-2mm of space per side.

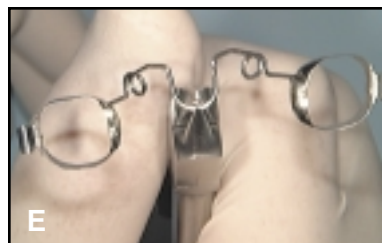
The modified transpalatal arch described here can correct molar rotations while providing anchorage and torque control. The arch can also be used for expansion or contraction, molar rotation, molar distalization, and vertical control.

Fabrication and Activation

After taking an alginate impression, fit the molar bands in the patient's mouth, and place them on the plaster cast (A). Incorporate helices 7-8mm from each side of the central omega loop of an .032" stainless steel transpalatal bar (B). These two helices makes the arch more flexible and thus greatly improve patient comfort.

Adjust the transpalatal arch on the cast so it is 3mm away from the roof of the palate (C). Solder the arch to the bands, and finish the appliance.

Remove the appliance from the cast. Activate the transpalatal arch by placing one end of a three-prong plier at the distal end of the omega loop and adding as much of a rotation angle as needed (D). With a bird-



beak plier, activate the omega loop to compensate for this constriction of the appliance (E).

Replace the appliance on the cast to check the amount of activation and expansion (F). If more expansion is needed, activate the omega loop further.

Attach the bands to the molars with glass-ionomer cement.

REFERENCES

1. Burstone, C.J. and Koenig, H.A.: Precision adjustment of the transpalatal lingual arch: Computer arch form determination, *Am. J. Orthod.* 79:115-133, 1981.
2. Cetlin, N.M. and Ten Hoeve, A.: Non-extraction treatment, *J. Clin. Orthod.* 17:396-413, 1983.



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