

# TECHNIQUE CLINIC

## A Modified Rapid Palatal Expander for Correction of Anterior Open Bite and Posterior Crossbite

**A** bonded or banded maxillary lingual arch with spurs is often used to treat anterior open bite caused by abnormal tongue posture or a fingersucking habit (A). The open bite is sometimes complicated, however, by a posterior crossbite that requires rapid palatal expansion.

The vertical and transverse problems can be treated simultaneously by incorporating spurs in the anterior portion of the rapid palatal expander (RPE). An .045"

stainless steel wire extension for the spurs is soldered to the RPE (B). Six to eight .026" spurs, 1.5-3mm long, are soldered to this wire, about 3mm away from the cingulae of the maxillary incisors and pointing downward and backward. The wire is then sectioned at the incisal papilla to allow transverse expansion.

Palatal expansion typically takes two to three weeks, but the RPE should be left in place for three months to ensure stability. At

that point, the jackscrew can be cut away, leaving only the spur appliance. Bite closure usually takes four to eight months, after which the spur appliance should be left in the mouth for another six months to prevent relapse. The teeth can be bonded or a headgear can be inserted at any point during this treatment.

The patient and parents should be informed that the spur appliance will cause some initial difficulty in eating, swallowing, and speaking, but that these problems generally resolve within two to three weeks. A typical patient requiring maxillary expansion and closure of an anterior open bite is shown here (C). Both the posterior crossbite and anterior open bite were corrected within four months using the modified RPE (D).



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