



The primary disadvantages of the bonded rapid maxillary expander are gingival irritation and difficulty removing the appliance. This Pearl introduces a modification in which, rather than bonding the acrylic pads, the operator bands the appliance to the second deciduous molars. The acrylic pads simply rest over the occlusal surfaces like a bite block, and the patient can hinge them off the molar bands for oral hygiene.

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## Modified Bite-Block Rapid Maxillary Expander

**T**he bite-block rapid maxillary expander (RME) is widely used in orthodontic practice for its capability to control molar extrusion in hyperdivergent patients through muscle-tone activation.<sup>1,2</sup> Traditional bite-block RMEs may interfere with oral hygiene, resulting in gingival irritation,

and may need to be removed after a few months of use, requiring an additional appliance to stabilize the expansion. In addition, RMEs cannot be used if deciduous molars are still present, and they make it difficult to monitor the entire arch during expansion because of the acrylic covering the premolars and molars. To overcome this last problem, we previously reported a technique for placing visible landmarks in the bite block.<sup>3</sup>

To resolve the other issues, we have developed a new modified bite-block RME with a pivotal opening (A). The patient can perform oral hygiene, as with a banded RME, after opening the bite blocks with the pivot mechanism (B).

The insertion protocol is easy and predictable, because the anterior and posterior rests guide the appliance positioning during the cementation phase. The same contacts planned for the bite blocks on the casts are transferred precisely to the mouth. The acrylic pads are secured to the molar bands with separators from the buccal aspect.

This appliance is also recommended in patients with upper deciduous molars or erupting premolars. When no longer needed, the bite block can be removed with a crown-cutting bur (C), transforming the device into a conventional banded RME (D).





**REFERENCES**

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