



I try to avoid placing anterior brackets during Phase I expansion treatment. If there is an anterior dental crossbite, I will instead add bilateral .028" stainless steel extension arms—sometimes referred to as whip springs—to the palatal side of the maxillary expander. With each turn of the expansion screw, the whip springs push the incisors forward. Once the crossbite is corrected, the whip springs can be sectioned off with a No. 557 bur.

This Pearl shows a similar technique using cobalt chrome expansion arms.

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Active Expander Arms for Anterior Crossbite Resolution

Correction of the anterior crossbite associated with a skeletal Class III malocclusion in the early mixed dentition requires immediate intervention¹ to allow for favorable growth and correction of both functional and esthetic aspects of the malocclusion.² This Pearl demonstrates the use of a

rapid palatal expander with active anterior arms for crossbite reduction. The welded activable anterior arms enable the clinician to avoid having to use other appliances for crossbite and alignment resolution.

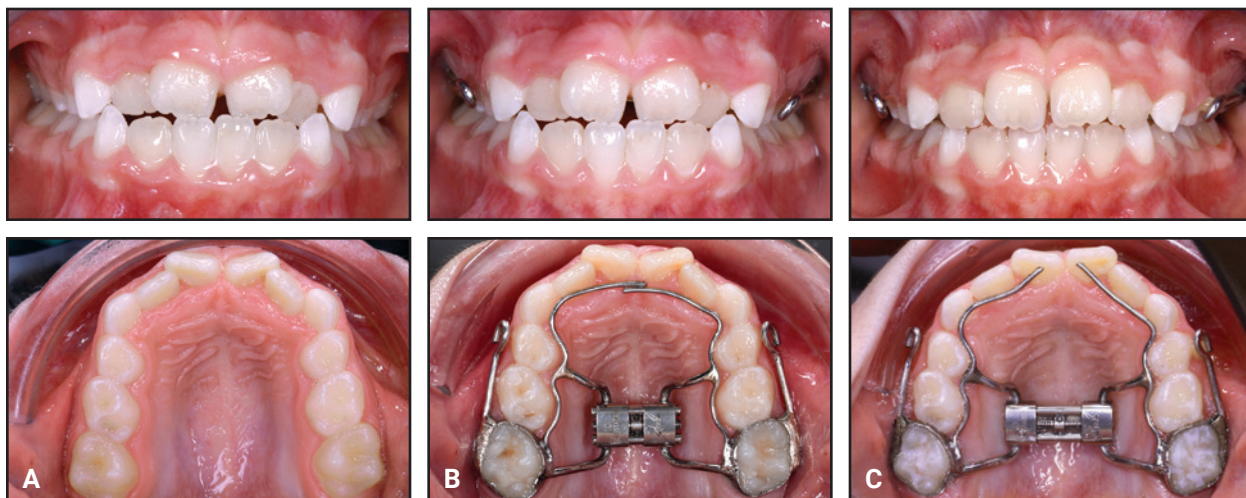
Technique

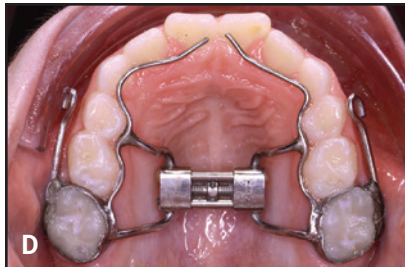
The technique is illustrated in a 7-year-old female patient in the early mixed dentition who presented with a skeletal Class III malocclusion with anterior crossbite, incisal crowding, and transverse maxillary constriction (A).

A rapid palatal expander was placed, with bilateral .035" cobalt chrome active anterior arms extended past the dental midline (B). Cobalt chrome is highly malleable and thus easier to activate with a Weingart plier for planned dental movements.

The crossbite was corrected by activating the anterior arms to produce a buccal coronal tipping movement of the four upper incisors (C). After 32 activations and 6.2mm of transverse expansion, a facemask was delivered to resolve the sagittal discrepancy, and the anterior arms were reactivated to improve the alignment (D).

Thanks to the use of the active expander arms, the dentoalveolar problems were corrected in only 18 months (E). The skeletal discrepancy could then be addressed to avoid the consolidation of a Class III malocclusion.





REFERENCES

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