One of the most common questions asked on the Dentaltown pediatric dentistry message boards is, “Do I need to place a space maintainer here? If I do need a space maintainer, which one do I need?” My goal of this article is to address those two questions.

Ask any orthodontist the following question: “Is it easier to put the teeth where they need to be if you have the space available, or is it easier to create the space first then put the teeth where they need to go?”

The following examples are general examples only. There are often other variables that can influence the use of a particular space maintainer.

**Missing “d”**

A “d” is a primary first molar—tooth #’s B, I, L or S

Six-year molar fully erupted and in occlusion: No space maintainer needed

Fig. 1 “d” needs to be extracted but six-year molar is fully erupted

Six-year molar not erupted, or not fully erupted: Band and loop is indicated

Fig. 2a Band and loop is indicated until the six-year molar is fully erupted

Fig. 2b Band and loop has maintained the “d space” and can now be removed

**Missing “e”**

An “e” is a primary second molar—tooth #’s A, J, K, or T

Six-year molar not erupted: Distal shoe or no space maintainer (distal shoes are an advanced space maintainer procedure and not necessarily the standard of care—no space maintenance is a possible option).

Distal shoes must be followed radiographically at each recall appointment. The blade portion that contacts the mesial of the six-year molar usually needs to be shortened once or twice before the six-year molar is fully erupted.

Fig. 3a Distal shoe—a pre-cementation radiograph is a must

Fig. 3b Blade location is close but not ideal

Fig. 3c Blade location is ready for cementation
Missing “e”
An “e” is a primary second molar—tooth #’s A, J, K, or T

Six-year molar partially erupted (unable to be banded):
Distal band and loop (or distal band and arm)

Figs. 4a and 4b
“d” banded with a custom fabricated distal band and loop or arm to prevent mesial migration of the six-year molar

Fig. 4b

Six-year molar fully erupted in the maxillary arch (able to be banded): Wire Nance or acrylic button Nance

Fig. 5 I prefer the wire Nance because it is very hygienic and does not trap food or plaque like the acrylic version does.

Six-year molar fully erupted in the mandibular arch (able to be banded): Lower lingual holding arch (LLHA)

Fig. 6 This is the most underutilized prevention procedure in dentistry, in my humble opinion.

Another indication for a wire Nance and lower lingual holding arch is when the patient has anterior crowding and the “e space” needs to be saved to help alleviate the crowding. In the mandibular arch, an LLHA can often alleviate up to 6mm of anterior crowding.

This is due to the size difference between the second primary molar and second permanent premolar. If that space is not maintained and anterior crowding exists, the options become much more limited. For example: distalization of six-year molars, proclining the incisors, reducing proximal surfaces, etc.

Space maintenance is an important, often overlooked, component of prevention. I urge the practitioners reading this article to strongly consider incorporating space maintenance into your practices. And in the mid-late dentition, a close look at a space analysis may reveal that your crowded patient needs nothing more than a bilateral space maintainer.

Author Bio

Dr. Josh Wren owns Wren Pediatric Dentistry in Brandon, Mississippi. He founded Pediatric Dental Seminars, which educates dentists on all aspects of clinical pediatric dentistry. Wren’s areas of interest include prevention, pulpal therapy, full-coverage crowns, orthodontic therapy, and emerging concepts in pediatric dentistry.

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