

THE READERS' CORNER

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(Editor's Note: The Readers' Corner is a quarterly feature of JCO in which orthodontists share their experiences and opinions about treatment and practice management. Pairs of questions are mailed periodically to JCO subscribers selected at random, and the responses are summarized in this column.)

1. To move lower molars distally or to preserve lower molar anchorage, which of the following do you use, and how effective would you rate these methods?

Respondents were asked to indicate any of a number of devices or mechanics that they used "always", "sometimes", or "never", and to rate them as "very effective", "somewhat effective", or "ineffective".

Lingual arches appeared to be the most commonly used appliance for preserving lower molar anchorage: 21% of the clinicians always used them, 70% sometimes used them, and only 9% never used them. Lingual arches were also rated the most effective of any method listed.

Only a few respondents always used lip bumpers; the rest were evenly divided between "sometimes" and "never". Most of the users found lip bumpers to be somewhat effective, with 24% rating them very effective and 6% ineffective.

No clinician always used a headgear to preserve lower molar anchorage or to distalize lower molars. Only 12% of the total respondents sometimes used headgears, while 83% indicated that

they never used them for these purposes. Those who had used headgears for molar control usually considered them somewhat effective, but fully one-third believed they were ineffective.

Eighty-one percent of the respondents never used skeletal anchorage, while about 10% sometimes used it. There were many comments, however, from clinicians who were eager to try the technique. Two-thirds of the respondents who had used this form of anchorage thought it was either very effective or somewhat effective; only two respondents indicated that skeletal anchorage was ineffective.

Class III mechanics were sometimes used by three-fourths of the respondents to preserve lower molar anchorage or to move lower molars distally. The rest felt that Class III mechanics were never indicated, except for one clinician who always used them. The majority of users believed that Class III mechanics were somewhat effective, and a significant number thought they were very effective. Only a few found them ineffective.

Ninety-two percent of the respondents indicated that they sometimes used open-coil springs for molar anchorage or distalization; the remainder never used them. The effectiveness ratings for open-coil springs were similar to those for Class III mechanics.

Describe the problems you have encountered with each of the methods you have used.

By far the most common problem with lip bumpers, headgear, and Class III mechanics was a lack of patient cooperation.

Static lingual arches had the fewest reported difficulties, but several respondents com-



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plained that the arches could become distorted and that erupting bicuspid could get trapped beneath the stabilizing lingual wires. Active lingual arches were occasionally said to flare the lower incisors.

Clinicians who used lip bumpers reported that patients had difficulty wearing them and that they sometimes caused tissue irritation. Also, driving the molars distally with lip bumpers could reportedly worsen the Class II molar relationship, and the second molars could become trapped beneath the distally driven first molars. There were a few comments that a lip bumper caused the anchor molars to rotate and, unless the appliance was expanded somewhat, tended to displace the molars lingually.

In addition to cooperation problems, some clinicians mentioned that a headgear attached to the lower arch could force the condyle into the fossa and occasionally cause joint pain. The orthodontists also reported some instances of tissue irritation from intraoral facebows.

The most common criticism of Class III mechanics was the need for patient cooperation. Also mentioned was the tendency of these mechanics to induce undesirable side effects that could complicate treatment.

Only a few problems with open-coil springs were listed: they tended to distort the archform, they were unhygienic, and they could produce unwanted flaring of the lower incisors.

There were no specific difficulties mentioned with skeletal anchorage. Several respondents commented that this form of anchorage was relatively new, and that its disadvantages would become evident when its clinical application became more prevalent.

Under what circumstances would you resort to extraction instead of attempting distal movement of lower molars?

The factors most frequently listed were profile considerations, lower anterior crowding, and second molar tipping. The clinicians were particularly concerned about exacerbating a Class III facial pattern, especially if negative overjet were present or would be likely after res-

olution of anterior crowding. Aggravation of a bimaxillary protrusion by using expansion and molar distalization rather than extraction was another consideration. Some concern was also expressed about impacting unerupted lower second molars if the first molars were driven distally. Many of the clinicians did not believe that enough lower molar distalization could be achieved to resolve minor or moderate crowding, adding that even if it were enough, stability would be marginal.

Some specific comments were:

- "Since I do not believe that lower molars can be predictably distalized to gain arch length, I will extract if the crowding cannot be addressed with interproximal stripping and/or advancing of upright incisors."
- "I would not consider distalizing a lower first molar if the second molar is unerupted and is mesially inclined."
- "I do not attempt distal movement of the lower molars unless they have migrated mesially due to early exfoliation of the primary second molar or extraction of the second premolar."

2. *Which upper retainer do you usually use?*

Two-thirds of the respondents indicated that they generally used an upper Hawley-type or wraparound retainer. This was followed, in order of preference, by Essix appliances, clear slipover appliances, and Invisalign appliances. One clinician said he still used a fixed banded device.

It was obvious from attached remarks that many of the orthodontists used different devices to accommodate particular patient needs or desires. For instance, an esthetic Essix appliance might be chosen over a Hawley appliance for an adult patient.

Which lower retainer do you usually use?

The fixed bonded 3-3 was by far the most popular retainer for lower retention. One respondent favored the fixed bonded 4-4, while another used a bonded 2-2. These were followed by Hawley and Essix appliances, with a few mentioning spring retainers and clear slipover retainers. Again, many clinicians remarked that they used one appliance routinely, but would use another if the situation called for it.

What is your usual prescribed duration of retention?

Permanent retention in both the upper and lower arches was favored by three times as many clinicians as the rest of the choices combined. The next most common response was two to 10 years (21%), followed by two years (7%). Only a few respondents prescribed retention periods of one year or less.

How long do you schedule regular retention check appointments?

Most of the clinicians scheduled retention checks for one year (35%) or two years (30%) after treatment. A few split the difference and said they scheduled appointments for 18 months. Only 13% booked retention checks for less than one year, while 11% recalled patients for two to 10 years. A smattering of respondents indicated that they scheduled regular retention checks indefinitely, perhaps with a gradual increase in the time between appointments.

What percentage of your retention patients do you maintain contact with for one, two, three, five, and 10 years after treatment?

It was obvious from the replies that the clinicians gradually lost contact with most patients over the years. Although the range of responses for each time period was broad, an average 87% of patients stayed in contact with their doctors for one year. This fell to 67% after two years, 34% after three years, 14% after five years, and 4-6% after 10 years.

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