THE READERS' CORNER

JOHN J. SHERIDAN, DDS, MSD

(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. In treating Class II malocclusions with retruded mandibles, do you "jump" (advance) the bite with mandibular propulsion or protraction? If so, which technique do you use most often?

The employment of propulsion devices to advance the mandible was definitely patient-age-related: the older the patient, the less they were used. In children age 13 or younger, with remaining growth potential, 69% of the respondents "always" or "frequently" treated a retruded mandible with a propulsion device, while only about 18% used this mode of treatment "sometimes" or "rarely/never". In adolescents (age 14-19), more than 32% "frequently" employed protraction devices, but only 15% "always" used them. In young adults (age 20-30), a substantial majority (more than 70%) "rarely/never" attempted bite jumping with a propulsion device; none of the clinicians reported "always" using such mechanics in this age group. In adults older than 30, more than 80% of the respondents indicated they would "rarely/never" use a protraction device, while only a handful used them "always" or "frequently".

The most common mandibular-propulsion device was a fixed-functional appliance, used "frequently" or "sometimes" by more than 69% of the orthodontists. The most popular of these were the Herbst and Forsus, followed, in decreasing order of mention, by the Twin Block, MARA, bionator, and Wilson Bimetric arch. Slightly fewer respondents reported using Class II elastics for mandibular protraction; removable functional appliances were the least commonly prescribed. Many noted that headgear was frequently worn as a part of such treatment.

Dr. Sheridan is an Associate Editor of the *Journal of Clinical Orthodontics* and a Professor of Orthodontics, Jacksonville University, 2800 University Blvd. N., Jacksonville, FL 32211.

How often does jumping the bite create a dual bite in your patients?

Correlation of a dual bite with mandibular advancement was again related to the age of the patient. About half of the clinicians indicated that a dual bite was "rarely/never" a problem in children. The majority opinion held that dual bites were "sometimes" created in adolescents (64%), "frequently" or "sometimes" in young adults (72%), and almost always in adults over 30.

Interesting comments included:

- "As long as the patient is early in their growth spurt, I would say it is rare, but it can happen."
- "I find that younger kids have more AP slides during treatment and need to be held in the advanced position pending full buccal eruption."
- "I usually need a second phase of treatment with Class II elastics to complete buccal-section detailing after mandibular propulsion."

For how many months do you usually apply the bite-jumping mechanics? For how long do you usually retain the jumped bite?

The protraction mechanics were generally applied for six to 12 months, with most respondents favoring the longer duration. The jumped

bite was always retained—for the substantial majority, this period would be temporary, but some believed in permanent retention.

Some representative remarks:

- "I slowly taper off on the retention while evaluating the stability of the case."
- "I will retain until the braces come off. That's usually 6-12 months."
- "With young patients, until Phase II."
- "I will retain the jumped bite until eruption is essentially complete."

How often does the jumped bite relapse in your patients?

It was evident from the replies that a jumped bite always has the potential for relapse. The frequency and amount of relapse were thought to be related to age, which, in turn, is related to growth. Relapse was much less frequently observed in children age 13 or younger and in adolescents, compared to young adults and adults over 30.

A few additional comments:

- "Cases with true mandibular hypoplasia cannot be corrected; therefore, if I attempt this approach, I expect relapse."
- "More correction equals more relapse."

Rather than jumping the bite, how often do you recommend surgery?

All respondents "rarely/never" recommended surgery in children under 13. Surgical-orthodontic treatment increased substantially in adolescents and was "frequently" advised for young adults. For adults older than 30, nearly 80% of the clinicians indicated that they recommended surgery either "frequently" or "sometimes". One reader commented:

- "I mention surgery to the younger patients with very short lower jaws and with well-positioned maxillae, but do not perform it until growth has almost stopped."

If you do not jump the bite, what alternative techniques do you use other than surgery?

The most frequently mentioned alternative was the extraction of upper premolars, particularly when coupled with maxillary protrusion. This was closely followed by camouflage esthetic treatment to a best-fit occlusion. Many clinicians preferred the strategic use of miniscrew anchorage to improve the bite. The use of headgear was also noted, particularly in younger patients.

Comments included:

- "I will extract upper bicuspids, guard my anchorage, and distalize the anterior teeth."
- "I will use headgear on the growing patient, but if growth is not evident, then I will extract upper first premolars."
- "I sometimes use a removable acrylic flat anterior biteplane to aid in freeing a 'post-locked' mandible to advance. The biteplane has two anterior clasps between the laterals and centrals and two posterior clasps at the first molars. I call it an ESP biteplane in honor of Dr. Everett Shapiro, former chairman at Tufts University, who introduced us to it."

— — — — — —

2. What "green" dentistry practices have you adopted in your office?

Responses indicated that most orthodontists are at least aware of the "green" movement. The most prevalent green practices, each listed by about three-fourths of the clinicians, were digital imaging and e-mail/phone/text appointment reminders instead of regular mail. More than 60% each reported using steam sterilization and eco-friendly cleaning and disinfecting products. These practices were followed, in decreasing incidence, by energy-efficient general lighting, digital patient charting, bulk purchasing to reduce packaging waste, water-conserving plumbing fixtures, and taking new-patient information through the practice website. A handful of practices had built, remodeled, or redecorated their offices using green building techniques or materials. Many less ambitious efforts were noted as well.

Some pertinent comments:

- "I think digital imaging has the greatest impact, when you consider no chemicals are needed for developing and fixing x-ray films."
- "We use solar paneling on the roof."
- "I may do some of these things on the list, but not necessarily to be 'green'."

• "There has not really been a conscious decision to 'go green', but if there is a product available that seems to be more environmentally friendly, my staff seems willing to give it a try."
• "I do not seek out green options on purpose, but am open to considering more environmentally friendly products and procedures."

What materials do you recycle in your office?

More than 70% of the respondents said they recycled office paper, and about half recycled glass, aluminum, and plastic. Other recycled materials, in decreasing order of frequency, included dental instruments, orthodontic brackets, cardboard, and operatory paper waste.

Do you have a staff member assigned as "green practices coordinator" or a similar position?

Only one respondent had a staff member designated for coordination of green efforts.

Who has influenced your decision to follow green practices in your office?

Two-thirds of the respondents said they had made the decision to initiate green practices on their own. One-third indicated that staff members had influenced their decisions. A few orthodontists also cited the spouse or family, the community, patients and colleagues, and, least of all, local ordinances or state regulations.

If you have not adopted any significant green practices, are you feeling pressured to do so?

Nearly 80% of the "non-green" clinicians did not feel any pressure to adopt such practices. Most of the remaining respondents felt some pressure, while only a smattering reported significant pressure.

Have green practices saved you money or given you any other tangible benefits? Do you advertise these practices to potential or current patients and their families?

It was obvious from the replies that orthodontists did not adopt green practices for financial or marketing reasons. Nearly 73% replied that green practices did not save them money or provide any other tangible benefits, and an overwhelming majority (90%) did not advertise their use to potential or current patients.

Practitioners who reported using several green techniques remarked:
• "We do it because it's the right thing to do and not for financial reward."
• "As long as it is practicable, it should be done, even if it is a bit more expensive."
• "Parents really appreciate these efforts."
• "We are perceived as being state-of-the-art and 'high-tech'. People are pleased to be on board with a forward-thinking office."
• "Overhead decreases when we reduce/reuse/recycle."
• "If it saves time and money, I'm for it. Otherwise, I am not particularly concerned, because my impact on the environment is minuscule."

What problems have you encountered in adopting green techniques?

There were many comments centering around the storage and disposal of recycled materials or the expense of hiring a recycling service. Other than this aggravation, few major problems were reported.

Representative replies included:
• "It's a bit more expensive. The waste-management company charges for the 'privilege' of having a bin for recycling corrugated cardboard."
• "I wish we had built recycling containers into our new office design. Separation of recycling has added extra containers and does not look as streamlined or clean as I would wish."
• "Staff can be lazy about sorting recyclables."
• "In our office building, there is no provision for recycling."
• "LEED certification of our building seems to be a daunting task."
• "I have a hard time finding cold-sterilization solutions that are green."
• "It would be nice for a biodegradable glove to be developed, as I feel that they are a huge contributor to non-biodegradable waste in landfills."

(continued on next page)

JCO would like to thank the following contributors to this month's column:

Dr. Robert Bard, Gurnee, IL
Dr. Kimberly Beal, Atlanta, GA
Dr. Jason Bourne, Marysville, WA
Dr. Marybeth Brandt, Indianapolis, IN
Dr. Adan Casasa, Mexico City, Mexico
Dr. Jack Chu, Port Coquitlam, British Columbia
Dr. Kyinr Chwa, Northbrook, IL
Dr. Charles Corwin, El Campo, TX
Dr. Craig Davis, Rohnert Park, CA
Dr. Luigi diBatista, Montreal, Quebec
Dr. Alvaro Figueroa, Chicago, IL
Dr. Antonio Finlayson, Panama City, Panama
Dr. Kenneth Freer, Vallejo, CA
Dr. Bradley Goings, Fort Collins, CO
Dr. Jerome Goldberg, Monroe, NY
Dr. Mark Goodnight, Tampa, FL
Dr. Courtney Gorman, Marion, IN
Dr. Myron Guymon, Logan, UT
Dr. Mark Harrington, Plymouth, MN
Dr. Steve Henseler, Woodbury, MN
Dr. Thomas Inglis, Hutchinson, MN
Dr. Thomas Iverson, Yuba City, CA
Dr. Ron Jawor, Irvine, CA
Dr. Jeff Just, Manitowoc, WI
Dr. Shoel Kerzner, Skokie, IL
Dr. Saad al-Kharsa, Riyadh, Saudi Arabia
Dr. Ezra Kleinman, Laval, Quebec
Dr. Michael Koufos, Munster, IN
Dr. Paul Kulits, Everett, WA
Dr. Rejean Labrie, St. Hyacinthe, Quebec
Dr. Randy Lang, Mississauga, Ontario
Dr. Sol Laski, Markham, Ontario
Dr. Richard Lines, Safford, AZ
Dr. Kevin Lucas, Buffalo Grove, IL
Dr. Richard Maness, Lafayette, LA
Dr. Richard Mariani, Miami, FL
Dr. Ray Maxwell, Monroe, WA
Dr. Robert Merrill, East Wenatchee, WA
Dr. Stephen Miller, Pointe Claire, Quebec
Dr. William Mischler, Louisville, KY
Dr. Randall Moles, Racine, WI
Dr. Pete Nasser, Shreveport, LA
Dr. Richard Perkins, Iowa City, IA
Dr. Alan Perry, Lake Charles, LA
Dr. Benoit Piquette, Brossard, Quebec
Dr. Richard Portalupi, Vacaville, CA
Dr. Robert Rappaport, Longmeadow, MA
Dr. Straty Righellis, Oakland, CA
Dr. Andrew Rosen, Tucson, AZ
Dr. Todd Rowe, Leominster, MA
Dr. Fred Schwendeman, Bozeman, MT
Dr. Edward Sheinis, Coral Springs, FL
Dr. David Sherwood, Encino, CA
Dr. Andrew Trapani, Algonquin, IL
Dr. Camille VanDevanter, Federal Way, WA
Dr. Jay Walker, Anniston, AL
Dr. David Warren, Miami, FL
Dr. Charles Wear, Santa Rosa, CA
Dr. Stephen M. Weisner, Andover, MA