

# THE READERS' CORNER

JOHN J. SHERIDAN, DDS, MSD

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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.)*

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*1. In correcting a Class II molar relationship, do you overcorrect to a Class III? Does an overcorrected Class II relapse to a Class I? Have you had an overcorrected Class II stay overcorrected?*

Fifty percent of the respondents said they occasionally overcorrected a Class II molar relationship to a Class III, 40% never overcorrected, and only 15% frequently overcorrected. Two-thirds of the clinicians felt that an overcorrected Class II frequently relapsed to Class I, while one-third thought it occasionally relapsed; no one said it never did. Fully 72% of the respondents had occasionally observed overcorrected Class II relationships that stayed overcorrected; 15% thought the Class II never or rarely stayed overcorrected, and only one respondent felt that the Class II frequently stayed overcorrected.

Late mandibular growth potential was one reason given for why overcorrection tended to relapse. Several clinicians also noted that dental relapse is more observable than skeletal relapse, and that early correction of the dental relationship will be more stable, meaning there is less need, if any, to overcorrect. Some individual

comments:

- “‘Never’ and ‘always’ are words that are inappropriate when active or latent growth can be involved.”
- “I try not to overcorrect A-P corrections. When I achieve Class I cuspid relationships, that’s where I try to hold it.”
- “I don’t overcorrect Class II cases when I can treat them at a relatively young age. I overcorrect when treating adults or late adolescent patients, because I think there is more of a posturing problem with the older patients.”

*Do you overcorrect rotations, does it work, and why or why not?*

Approximately 50% of the respondents occasionally overcorrected rotations; the remainder were evenly divided between frequently and never overcorrecting rotations. Sixty-two percent thought overcorrection worked, 35% thought it did not, and 3% were undecided.

Many clinicians believed that periodontal fiber rebound was the source of relapse, and that because the relapse potential of severe rotations was a powerful factor in determining ultimate stability, fiberotomies would be more indicated in such cases. A number of responses mentioned that although one can’t predict relapse precisely, anticipating a certain amount gives a better chance for a satisfactory result. Nevertheless, there was some concern that overcorrection could stay overcorrected, and that such a result, in the perception of the patient, would be an imperfectly finished case.

Individual responses included:

- “Posterior rotations seem to be more stable after correction, especially with good intercuspa-



Dr. Sheridan is an Associate Editor of the *Journal of Clinical Orthodontics* and a Professor of Orthodontics, Louisiana State University School of Dentistry, 1100 Florida Ave., New Orleans, LA 70119.

tion. Anterior rotations seem much less predictable. However, judicious reproximation of contacts where slight pretreatment crowding was present seems to improve stability.”

- “I have no way of estimating the amount of relapse that I would like to build into the case. And there are no studies that can give you a formula. None. Patients want to see straight teeth at the end of treatment, not crooked teeth that have been overcorrected.”
- “Once I correct the rotations, they are held for as long as possible. I correct rotations early so they are held from 12-24 months. Lower anterior rotation correction is held by a bonded lingual retainer for a minimum of two years. You can't use fixed retention on overcorrected teeth, and that, in my practice, is the best reason for not overcorrecting.”

*Do you use fiberotomy, does it work, and why or why not? What are your main objections to fiberotomy?*

Only 12% of the clinicians used fiberotomies frequently; the rest were evenly divided into the “never” and “occasionally” categories, with a few noting “very rarely”. The majority (71%) believed that fiberotomy worked, 17% thought it worked sometimes, 4% thought it did not work at all, and 8% were undecided.

About two-thirds of the clinicians mentioned cost, discomfort, and reluctance on the patient's part as their primary objections to fiberotomy. Twenty-six percent believed the procedure to be basically ineffective, especially long-term, and one respondent thought it might even cause damage to the gingival attachment.

Comments included:

- “Sulcus-slice or circumferential fiberotomies are directed at a narrow band of coronal periodontal tissue, but there are fibers along the entire root surface that are not affected by the surgical procedure. So in the short run it's of benefit, but the long-term forecast is dependent on when and how the force of the uncut fibers kick in.”

*Do you overcorrect an open bite, and if so, by how much?*

Seventy-three percent of the clinicians said they frequently overcorrected, while 20% occasionally did so. Only 7% never overcorrected an open bite. Half of the respondents reported overcorrecting “as much as possible”, 18% overcor-

rected 1-2mm, and 10% overcorrected 3-4mm. Other clinicians stated the amounts of overcorrection in percentages rather than millimeters—i.e., 50%, 30-50%, or 10-20%—with the vast majority opting for the higher percentages.

Some interesting comments were:

- “I try, really try, to correct to a normal range of overbite. If I get that, I'm ecstatic. Anterior and posterior open bites are the most difficult cases of all, and in good conscience, I never promise or allude to perfection in the finished case.”
- “The critical question is determining the etiology of the open bite and then focusing on correcting the causative factors so one can improve the chance of long-term stability.”

*Does an overcorrected open bite stay overcorrected? If it relapses, why does it, and what do you do?*

A 77% majority of readers thought an open bite only occasionally stayed overcorrected, 12% felt it never stayed overcorrected, and 6% said it frequently stayed overcorrected. Most clinicians thought the cause of relapse was centered around neuromuscular factors such as tongue and finger habits, swallowing patterns, airway obstruction, and genetic patterns. Very few believed that it was due to poor diagnosis or treatment planning.

When open bite relapse occurred, the majority of clinicians used a tongue-training device such as tongue spikes, a tongue crib, or a retainer with a pearl. A few stated that a surgical consultation would be in order. Others said they did nothing, since they had tried all they could during treatment and there was no sense in doing it all over again. A small percentage of respondents felt that buccal section equilibration could help mitigate the severity of the problem.

A representative comment:

- “Most of the time the problem relates to an undesirable skeletal condition of excess posterior vertical dimension, which is maintained or exacerbated by undesirable tongue function. Frequently the etiology is multifactorial, possibly involving a genetic tendency for allergies, abnormal tonsillar or adenoidal tissue, low tongue posture, and overeruption of posterior teeth. Working with an ENT specialist and planning for orthognathic surgery is my favored treatment approach, with a focus on the possibility of maxillary reduction osteotomy.”

2. *Can you identify non-cooperation before treatment?*

The overwhelming majority (84%) reported that they could occasionally identify non-cooperation before treatment. Sixteen percent said they could frequently recognize it, but no clinicians said they could never spot an uncooperative patient. Noteworthy comments included:

- “If the patient has divorced parents, poor grades in school, a surly attitude, and is disrespectful of parental authority, be prepared to use a non-cooperation appliance, or better yet, don’t put yourself through professional purgatory while attempting to treat such a patient.”

*If you anticipate non-compliance before treatment, how do you proceed?*

The most common method of dealing with anticipated non-compliance was to have a detailed patient-parent-doctor conference emphasizing the compromised results, or the cessation of treatment, that would result from poor cooperation. Some respondents noted that their staff constantly reinforced this message. An equal number of clinicians indicated that they would be prepared to use a non-compliance appliance. Some said that marginal nonextraction cases would become extraction cases when non-cooperation was expected. If poor oral hygiene was the problem, many clinicians would not initiate treatment, or would halt it, until acceptable hygiene was evident. Some particular responses:

- “Reinforce patient cooperation by assistants making an extra effort to motivate, not only at the office, but over the phone and by sending notes. We minimize the potential of non-compliance by selecting a biomechanical system that can get the best result with the least compliance. More often than not, extractions will be involved.”
- “Each patient signs a Patient Cooperation Agreement that states they will brush three times a day, floss once a day, wear removable appliances, and not eat certain foods. This agreement is witnessed by the parents, and their signatures are required.”

*If you encounter non-compliance during treatment, how do you proceed?*

Overwhelmingly, the respondents indicated that they would inform the patient and parents of the consequences of non-compliance—compromised or unattained treatment goals, waste of

time, waste of money, and loss of a window of opportunity for favorable growth. Many clinicians said they did not chastise the patient or parents, but simply explained the situation and relied on the patient and parents to comprehend the results of a continued disregard for clinical directives. After a face-to-face meeting, many of the orthodontists reported sending letters to the principals involved, elaborating on their non-compliance policies.

Another 13% of the respondents said they would modify treatment goals to get the best results under the circumstances, making the patient and parents aware of this compromise. Ten percent would terminate treatment as soon as possible. A smattering of respondents said they would charge more for non-compliance, set a deadline for appliance removal, or tie in headgear. Representative comments included:

- “When I encounter a non-cooperator, there will be four steps I will take. First time: I talk to the patient. Second time: I set up a private meeting with the patient reviewing the cooperation agreement and informing them that I will talk to their parents next time. Third time: conference on a non-appointment day with parents and patient, advising that if the non-cooperation occurs again, the braces will come off. Fourth time: braces are taken off.”
- “Don’t procrastinate and don’t be wishy-washy; nip it in the bud with a distinct strategy. Take control, and above all, don’t plead with the patient. Tell them what to do, encourage them to do it, and if it’s not done, take the appliances off. Don’t do this in anger. Just let them know that it was their choice, and if they decide to follow your instructions they are more than welcome back into your practice.”

*What do you do to encourage compliance?*

Two-thirds of the respondents mentioned reinforcement by frequent progress reports and staff counseling. Another 10% increased their fees with continued non-compliance. A significant number (21%) used a reward system, with enticements including movie or rock concert tickets, T-shirts, fast-food gift certificates, and tickets for prize drawings. One response:

- “If the non-compliance is poor dental hygiene, I invite them to my famous ‘Camp Toothbrush’. They are scheduled every morning—early—to

come and efficiently brush their teeth. They may have to miss tennis camp or band camp or some other activity, but the patient and parents get the message that appropriate dental hygiene is important."

*At what point do you use a non-compliance appliance? What is your choice of appliance?*

More than half of the clinicians said they would use such an appliance from the start or as early as possible, while about 10% would wait three to six months from the initial observation of non-compliance. Another 18% indicated they would use a non-compliance device "when necessary", while 19% said they did not use these at all. One explanation was:

- "I have no substitute for fixed appliances. If I come to the point of no return, I inform the patient/parent that we are on the road to failure, and I don't want to go there. I remove the appliances and accept the situation. I always stress that the patient looks so much better than when we started—not ideal, but a lot better. There is no sense in making everyone feel bad when I can make everyone feel better about a bad situation. I leave the door open for further treatment."

The variety of non-compliance appliances listed attests to the abundance of devices that are currently available. By far the most popular device (62%) was the bonded or banded Herbst appliance. This was followed, in decreasing order of usage, by Jasper Jumpers, the Pendulum appliance, Eureka springs, the Ormco Bite Fixer, the Distal Jet, open-coil springs with a Nance (Gianelly), the Pendex, Saif springs, the Mayes appliance, and the Jones Jig.

*What treatment compromises do you accept with a non-compliance appliance?*

Three distinct attitudes were equally prevalent among 77% of the respondents. First, there were the clinicians who did not want to accept any compromise if at all possible. Second were those who would accept flared or expanded mandibular incisors. And third, those who would accept compromised molar positions. These were followed, in decreasing order of frequency, by compromises in overjet, overbite, treatment time, crossbite without a shift, and alternative treatment plans such as extractions.

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Dr. A. Alan Akridge, Louisville, KY

Dr. G. Stephen Bell, Shelby, NC  
 Dr. Christopher M. Biety, Broomfield, CO  
 Dr. William H. Craig, Wilmington, NC  
 Dr. John P. Doley, Williamsburg, VA  
 Dr. James W. Dougherty, Fayetteville, GA  
 Dr. Geoffrey M. Drawbridge, Naugatuck, CT  
 Dr. Vance J. Dykhouse, Blue Springs, MO  
 Dr. Norman D. Farley, The Woodlands, TX  
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 Dr. John L. Gerloff, Fort Worth, TX  
 Dr. Jerome M. Gibson, San Antonio, TX  
 Dr. Ronald I. Glaeser, Anchorage, AK  
 Dr. Robert S. Goldie, Orlando, FL  
 Dr. Joseph Gray, Upland, CA  
 Drs. C. William Groesch and Thomas J. Longos, Springfield, IL  
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 Dr. James P. Hermann, Penfield, NY  
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 Drs. David and Susan Hime, Austin, TX  
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 Drs. John R. McCranels and Scott A. McCranels, West Palm Beach, FL  
 Dr. Bernard R. Naselli, Syracuse, NY  
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 Drs. Jim E. Williams and Angela Becker, Fort Wayne, IN  
 Dr. Laurence C. Wright, Amherst, NY