

# Just a (clinical) Minute!

## With Dr. Ron DiRezze

### **Proceed with Caution!**

Greetings to my friends and colleagues. In this edition of Just a (clinical) Minute! I would like to take this opportunity to caution everyone that when the conditions of the road are slippery and treacherous, we should proceed with care and caution.

This month's article will focus on case selection.

First, why is case selection important? Simply stated case selection directly correlates to your success. To dissect a little further, allow me to ask: What determines success for your patient? I would say success in the eyes of your patient involves straight teeth and a level bite with minimal pain or discomfort.

Now for the follow up question: What determines success for you? From where I sit, I would say that success for the practitioner is all those things I just mentioned but stated differently. Predictability is the key word for us dentists here. Predictability in solving our patient's chief complaint, predictability to implement a plan and movements that will result in no refinements or minimal easy refinements, and predictability in your methods to deliver clear aligner therapy consistently and at a high level in your practice.

Before we dive in, I would like to make an analogy that I have found to hold true: it's not always the car you drive that will determine how well you get from A to B in bad conditions, and it's not always the driver. Rather, there is a delicate balance between the driver and the machine where experience and senses will safely guide you through peril. Still, there are some cars you should never take out in the snow and ice. This article will focus on the cars you would never attempt to drive in slippery conditions.

It is no secret that our rules of selection for our clear aligner cases aim to increase predictability, increase our success rates, decrease negative clinical outcomes, contribute to the overall health and well being of a patient, and ultimately strengthen the relationships inside your practice. Let us look at cars that you should never drive in the snow AKA The cases you should never treat with clear aligners:

1. **Growing class II Malocclusion** – although this treatment can be done with aligners, and it is well documented, the methodology can be troublesome and time consuming for the general practitioner looking to incorporate aligner therapy efficiently in the office. There are many practitioners skilled at using elastics to solve a class II in clear aligner therapy, and I agree that it can be extremely rewarding and satisfying to accomplish a class correction in this manner, but often there are too many variables that cannot be controlled with clear aligners. The aligners may not be retentive enough if using cut outs in the plastic, resulting in bonding buttons directly to the tooth. This 'solution' results in decreasing surface area that the plastic is in contact with

the tooth due to having to manually cut out plastic where the buttons are. Frequently, molars cannot be de-rotated with elastics resulting in a challenging molar rotation at the end of class correction that could take a long time and possibly end up in a posterior open bite. Lastly, a class II malocclusion is frequently accompanied by a crossbite which is difficult to treat with clear aligners. Again, it is important to note that this case can be done with staged movements, but it would take a very long time in clear aligners and require an experienced practitioner.

2. **Growing Class III** – please refer to the above section on Growing Class II's, but I will discuss nature's monkey wrench called 'the pubertal growth spurt of a growing Class III patient'. These are cases that are barely contained in wires. Plastic should not be a consideration in the average general practitioner's office for an adolescent class III case. At the time of the pubertal growth spurt we do not know if bone apposition will happen at the superior head of the condyle, the posterior head of the condyle or the resulting direction of mandibular growth. Coordination of arches can be difficult to achieve and almost impossible to maintain after treatment. I have found in extremely limited cases there may be a window to use aligners to straighten the teeth in each arch, but having an adolescent patient, it would be usually more advisable to seek functional appliance and/or straight wire treatment as part of the treatment plan.
3. **Bilateral Cross Bites** – the propensity for a posterior open bite looms large in these cases. In addition to this, anchorage is usually not enough to prevent negative reciprocal movements, and plastic usually cannot exert enough force to move a molar bodily. It usually ends up tipping and leaves the mesial lingual cusp occluding high on the lower molar creating a posterior open bite. Having told you the negatives, let me point out a couple of positives. With the release of the new G8 software, more predictable expansion is on its way! Molar expansion attachments have been introduced to give an occlusal vector of force preventing the tipping of a molar. Think of someone stepping on toes. This attachment will exert force to keep the buccal cusps (the toes) down if they try to tip upwards and it will not leave the mesial lingual cusp contacting early leaving a posterior open bite. Another feature in G8 is the introduction of 'Smart Force Aligner Activation' whereby all parts of the plastic are in contact with the teeth, but the force exerted is different at different stages to better control the tipping forces. Although these are wonderful advances for clear aligners, it still needs to be seen whether posterior crossbites can be solved with aligners on a consistent basis with G8.
4. **Reverse Overjets** – as a rule, retracting teeth and/or distalizing molars is not a good functional practice. Many practitioners have solved a class III problem in this manner and achieved a patient's esthetic concerns, but having practiced TMJ therapies for many years I believe its best to stay away from retractive mechanics in all situations. The risk here is posterior displacement of the condyles as a secondary effect of retractive mechanics.

As mentioned before, there are great practitioners who can treat these clinical conditions and can treat them well. Care and close monitoring are essential for these cases and if you have the team, the workflow, and the proper patient these challenges can be rewarding.

Together with Dr. Brock Rondeau, we have worked out a system whereby these cases CAN be treated in your office and you will have the proper tools to do so. It is our philosophy to teach dentists to treat safely and to 'stay in your lane', but we also feel that clear aligners can play a significant role even in these cases once functional appliances are utilized.

For more information, please keep checking the Rondeau Seminars website for detailed descriptions of our comprehensive clear aligners program. Until then, stay safe, and watch out for those slippery conditions both on the road and in your office.