



Dr. Sam Daher's Techniques for Class II Correction with Invisalign and Elastics

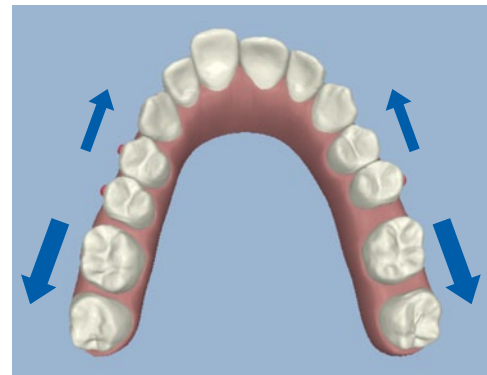
In a recent *Ask the Expert* webinar, Dr. Sam Daher shared his current protocol for Class II correction with Invisalign and elastics. Dr. Daher, who has treated over 1,600 Invisalign cases, has been correcting Class II patients with Invisalign on a routine basis since 2006. This experience has enabled him to evolve his clinical protocol to manage common treatment issues and optimize treatment results:

Tip 1: Request “sequential distalization” (i.e., distalize one tooth at a time) on the prescription for predictability.

When planning for Class II corrections with Invisalign and elastics, Dr. Daher will generally request sequential distalization on the Invisalign prescription. Sequential distalization simply means that the aligners are set up to distalize one tooth at a time (as opposed to en-masse movements)—Dr. Daher believes that this provides more controlled anchorage for distalization. The distalization starts with the upper second molars, and once the second molars are 2/3 of the way, then the upper first molars move back, then premolars, and so on. (Note that this distalization protocol is currently the default distalization staging option that is requested via the Rx form.)

For the anterior teeth, Dr. Daher distalizes the canines, and then distalizes/retroclines the upper incisors. To maintain proper crown torque, Dr. Daher requests buccal crown torque and lingual root torque (Power Ridge™ feature) on the upper incisors as he starts retraction on the incisors.

In a sequential distalization setup, distalization is built into the aligners and it is the aligners that move the teeth back, not the elastics. As the molars are distalized with the aligners, the molars are pitted against the rest of arch for anchorage (see Ref. 1). To prevent loss of anchorage and thus possible flaring of the anterior teeth, elastics are used to reinforce the anchorage (see Ref. 2).



Ref. 1: Reciprocal anchorage: Molars are pitted against the rest of the arch as they are distalized



Ref. 2: Elastics are used to reinforce anchorage and help to prevent flaring of the anterior teeth

Tip 2: Take PVS impressions BEFORE sending patient to surgeon for extraction of third molars to optimize treatment timing.

To make room for distalization, Dr. Daher will generally have the upper third molars extracted by a surgeon while leaving the extraction of the lower third molars to the discretion of the general dentist.

A helpful tip is to take the PVS impressions for Invisalign BEFORE sending patient for extraction. There are several reasons for this. First, the patient is not swollen and so taking

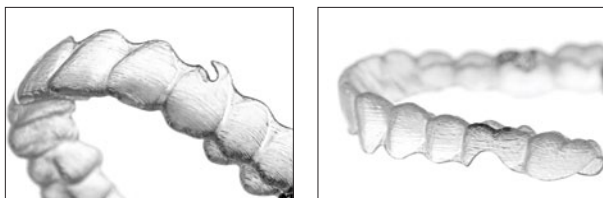
an impression is easier. Second and the more important reason is that it allows for Invisalign treatment to start soon after the extraction. Dr. Daher has found that the sooner distalization starts after the extraction, the more favorable the distalization (benefitting from the healing process at the extraction site). So while the patient is getting the extraction, Dr. Daher sets up the ClinCheck® plan and receives the aligners with the goal of starting the patient within a couple weeks after the extraction. (Remember to request the third molars to be removed virtually in your Rx Form Special Instructions if they are visible clinically.)

Tip 3: Limit attachments to 3 per quadrant to avoid excessive aligner retention.

Dr. Daher will limit attachments to 3 per quadrant (typically upper first molars, upper first premolars and second premolars). He finds it unnecessary to place an attachment on every tooth to be distalized. Dr. Daher favors vertical rectangular attachments for distalization.

Tip 4: For Class II Div I cases, use a hook cutout on the upper canines and buttons on the lower second molars (or first molars) for the elastics to avoid unwanted effects. For Class II Div II cases, use a button on the upper canines to avoid dislodging of aligners.

For Class II Div I cases, Dr. Daher has seen that a mesial out rotation can occur if the button is not perfectly positioned along the long axis of the canine. To avoid this, he now likes to order a hook cutout on the canines. He places a button on the mesial-buccal of the lower first or second molars to prevent aligner dislodging and mesial in rotation (see Ref. 3)



Ref. 3

In Class II/Div 2 cases, there can be an increased tendency for the upper aligner to be dislodged by the elastics pulling on the aligners due to the retroclination of the incisors. Dr. Daher therefore uses an esthetic button on the upper canine to avoid dislodging of the upper aligner (see Ref. 4)



Ref. 4

Tip 5: Start elastics at stage 8 and end elastics 5 stages before the end of the treatment.

Dr. Daher likes to start elastics early in the treatment, typically stage 8 (visit #3) after the patient had time to grow accustomed to wearing aligners. Dr. Daher will end elastics wear at least 5 stages (or 10 weeks) before the end of treatment. This gives time to make sure that Class II correction resulted from true distalization as opposed to forward posturing of the mandible from the effects of the elastics.

CLASS II PATIENT MANAGEMENT TIPS

Dr. Daher tells his patients to not expect the anterior teeth to be corrected until the latter part of treatment. He sets the expectation that spaces will be created in the posterior and that food may get caught in these spaces...and that things will get worse before they get better. He also includes this information in a letter that is provided to the patient at the beginning of treatment. Dr. Daher will also explain to the patients the importance of wearing the lower aligners all throughout treatment. Passive aligners are an excellent solution to address this potential problem.

To learn more about Dr. Daher's protocol for Class II corrections, watch the *Ask the Expert* webinar at www.AligntechInstitute.com/ATE/12-10-10