

# INTERARCH CONTROL WITH INVISALIGN®

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## PURPOSE

Control of the interarch relationships is a key requirement for comprehensive orthodontic treatment. The doctor's ability to add buttons and elastics to the Aligners greatly expands the applicability of

Invisalign, allowing a wider range of patients to benefit from Invisalign treatment. The use of Invisalign interarch mechanics is illustrated in a space closure case with an edge-to-edge anterior bite relationship.

## METHODS

The plastic buttons for interarch elastics are ideally attached to the Aligners themselves, rather than to individual teeth. Retention of the Aligners must be sufficient to prevent them from becoming dislodged with elastic wear. Therefore successful use of interarch elastics begins with ClinCheck. Figure 1 shows that additional attachments were requested by the clinician in this case to increase retention. The attachments were placed horizontally and towards the mesial aspect of the teeth, to counteract the tendency for the teeth to tip mesially during closure of large spaces. In a case with longer clinical crowns a smaller number of attachments would have been adequate.

Figure 2 shows the patient biting down in centric relation, midway through the Aligner series. The lower anterior teeth are now in interference with the upper anteriors, causing a posterior open bite. The lower molars have slipped mesially due to closure of the large posterior space present pre-treatment. The Invisalign Button Kit provides the materials needed to attach clear plastic buttons and elastics to the Aligners. Clear plastic buttons were attached in the upper right first molar and lower right canine areas, allowing for unilateral interarch Class III elastic wear.

*Figures 1-4 on reverse.*

The buttons were added to each of the upcoming Aligners in the series, allowing the patient to continue to switch Aligners per the treatment protocol.

Figure 3 shows the teeth with the Aligners, buttons and a unilateral 3/16" clear elastic in place. To ensure strong bonding of the plastic buttons to the Aligners observe the following:

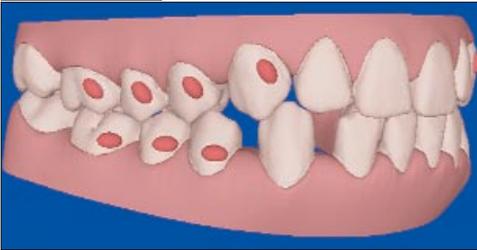
- The aligner surface must be clean and dry
- If bonding to a used Aligner, clean/dry it and sandblast the surface lightly, or use a thin flame carbide bur to clean/roughen the surface if a sand blaster is not available.
- Apply the ClearLoc adhesive directly to the back of the button
- Place the button in such a way that maximum contact with the Aligner is made
- Light-cure 30 seconds per button with a halogen lamp
- Use a thin flame carbide bur to add extra undercuts to the side of the button if needed

Figure 4 shows the improvement in the interarch relationship after the patient wore the Aligners and Class III elastics faithfully for the next 3 months. The anterior teeth are no longer in interference, allowing the bite to close back down. The posterior bite relationship has improved towards Class I. This patient's treatment is still in progress.

## SUMMARY

The use of plastic buttons attached to the Aligners with ClearLoc adhesive and interarch elastics allows for interarch control during Invisalign treatment. The use of interarch mechanics opens the door to correction of a variety of bite problems, allowing the clinician to treat a broader variety of cases and obtain better treatment results with Invisalign.

Figure 1



Additional attachments were requested by the clinician in this case to increase retention.

Figure 2



The lower anterior teeth in interference with the upper anteriors, causing a posterior open bite.

Figure 3



Aligners, buttons and a unilateral 3/16" clear elastic in place

Figure 4



Improvement visible in the interarch relationship after the patient wore the Aligners and Class III elastics faithfully for the next 3 months