

**MASTERING DEEP BITE  
AND CROWDING CASES  
WITH ALIGNERS**



# CLINICAL CASE REPORT: DEEP BITE WITH CROWDING

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## EXECUTIVE SUMMARY:

- Type of clear aligner: Invisalign® case.
- # of stages on original set up: 36.
- # of final stages on approved set-up following ClearTPS Treatment Plan Optimization™: 23.
- Total months of treatment: 9.
- Refinement: 1 refinement with 7 aligners.
- Notes: The initial Invisalign® setup did not have significant retention posteriorly to counteract lower incisor intrusion and did not have anterior intrusion overcorrection built in.

## NARRATIVE:

Bite correction, especially deep bites, have traditionally been very challenging to correct using aligners. In this case report, we will be looking at how we treated this patient who came to us for preresorative orthodontics.

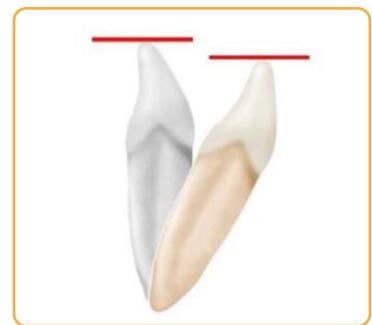


This patient presents with crowding, a deep overbite, and worn incisors.

Restorations were planned for upper incisors but longevity of these would be compromised due to the increased overbite. To be successful in this case when using aligners, we will need to understand some key ideas:

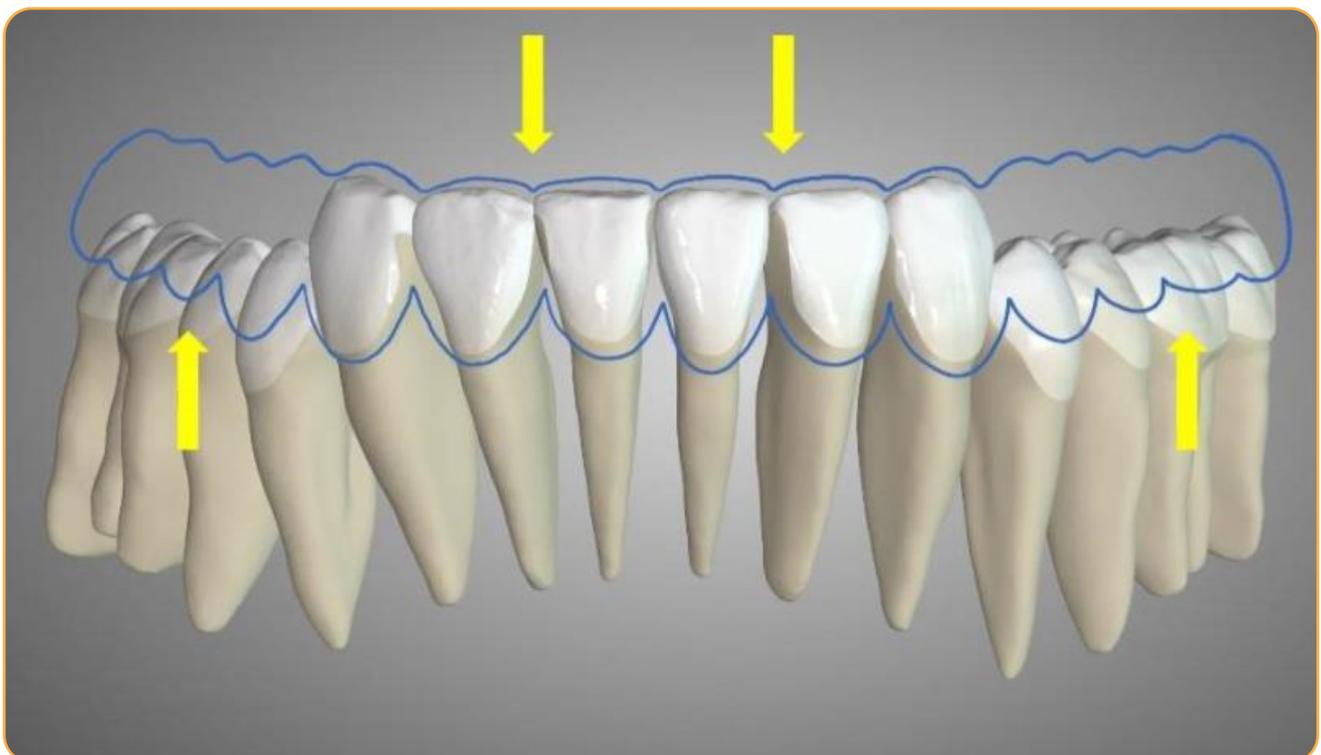
1. Relative intrusion
2. Anchorage
3. Overcorrection

Here, relative intrusion occurs when we procline incisors as we align. During this movement, incisors will be relatively intruded to aid us in deep bite correction as shown in the diagram. You can see that the incisal edge of the lower incisor is lower, or "relatively intruded", as this tooth is proclined.

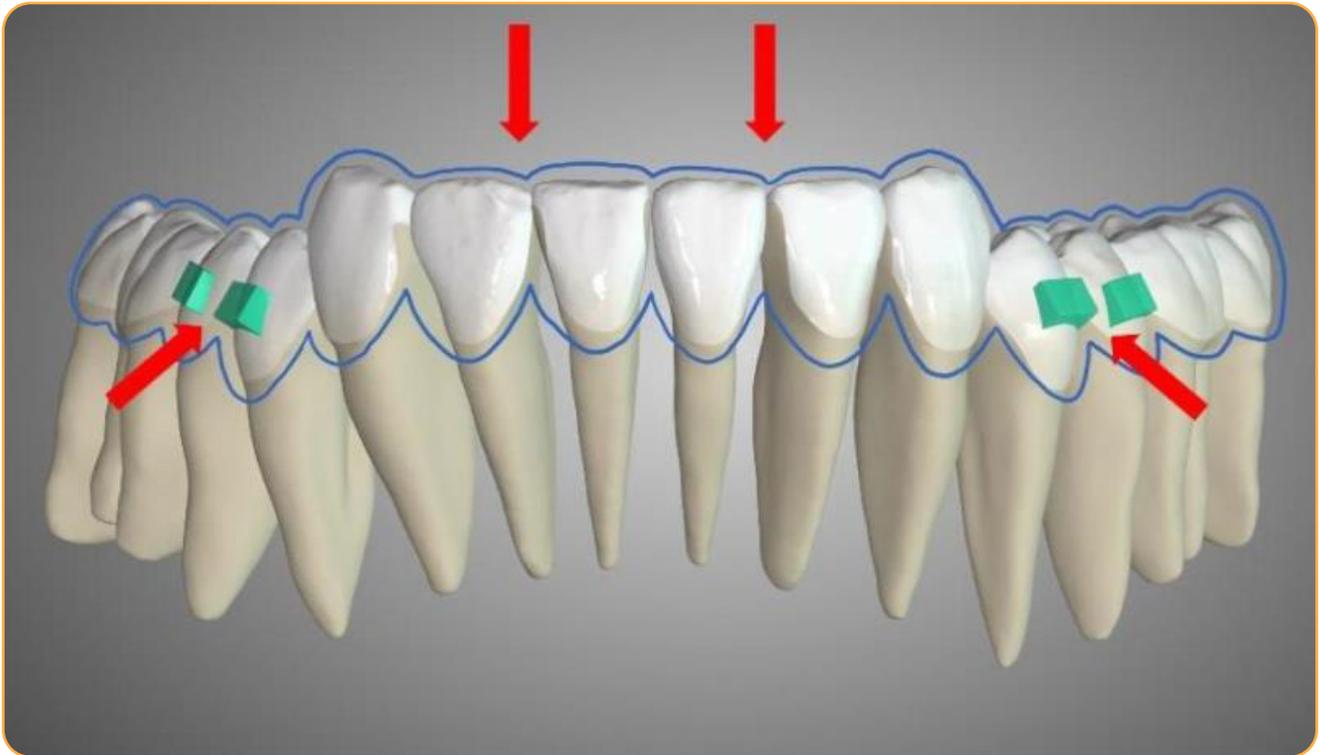


Anchorage, in the form of correct attachment design, is also important to ensure proper aligner fit to allow planned tooth movements to occur.

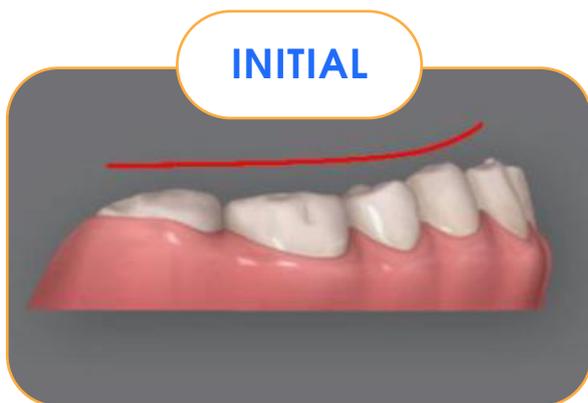
In the below diagram, without proper attachments, the aligner is unable to fit in the posterior segments, preventing proper intrusion to occur anteriorly.



With attachments placed in the premolar region, anchorage is established to allow for anterior intrusive forces to occur.



Lastly, just like in fixed appliances, overcorrection needs to be planned for the successful correction of deep bites. This is shown below in the overcorrected setup and what the final result was despite the overcorrection.



With these 3 key principles, the following result was achieved in 12 months:

- Teeth were aligned and the deep bite was decreased.
- There is now enough space for dentist to complete restorations.

**INITIAL FINISH BEFORE RESTORATIONS**



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