

Class I with an Anterior Localized Crossbite
Female, 12:6 yrs.

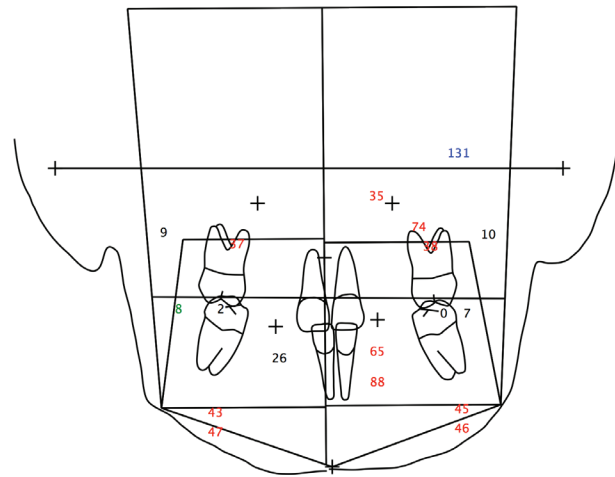
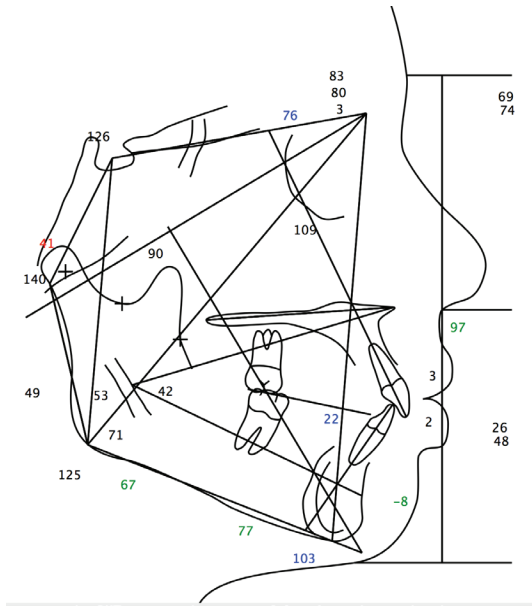


Initial extraoral photos



Intraoral photos before treatment.

Pre Tx



Case summary:

12:6 yo Female, Class I late mixed dentition with a localized crossbite (upper right canine), which causes the mandible to shift. Midlines off. Based on the lat ceph and PA ceph, she presents with a normal sagittal, vertical and transverse dimensions.

Tx Strategy by Stages:

Stage I: Leveling and aligning moving upper right canine buccally correcting crossbite. Her bite will be opened adding occlusal stops on lower 6'. The bite should be opened just enough to allow the canine in crossbite to move buccally as the arch aligns.

Stage II: Coordinate upper and lower arches, level mandibular occlusal plane, consolidate all spaces and achieve a good OJ/OB.

Stage III: Achieve optimal intercuspsation of the buccal segment using vertical triangular elastics.

Appliance:

CCO System

Auxiliaries:

Occlusal stops "blue" on lower 6'.

Elastics 3/16" 4oz (Piano).

Wire Sequence:

Stage I: 0.014" INITIALLOY Medium.

0.018" INITIALLOY Medium.

0.020" x 0.020" BioActive Medium Coordinated.

Stage II: 0.019" x 0.019" SS Medium Coordinated.

Stage III: 0.019" x 0.019" SS Braided Medium Coordinated.



Stage I. EXPERIENCE CCO System with upper and lower 0.014" INITIALLOY Medium wires. Bite was opened adding occlusal stops on lower 6'. In these photos, patient is intentionally opening her mouth to better appreciate the blue occlusal stops. They are at and even like a flat splint, so the patient can close without any mandibular shift.



Stage I. Upper and lower 0.018" INITIALLOY Medium wires. The blue occlusal stops were reduced.



Stage II. Upper and lower 0.020" x 0.020" BioActive Medium Coordinated wires. Upper left canine was engaged and upper right 5 was repositioned more gingivally.



Stage II. Upper and lower 0.019" x 0.025" SS. SS Medium Coordinated wires. Vertical triangular 3/16" 4oz elastics.



Stage II. Upper and lower 0.019" x 0.025" SS Medium Coordinated wires. Upper and lower occlusal planes leveled and paralleled. Power Chain is used to consolidate any remaining space. Vertical triangular elastics 3/16" 4oz.



Stage III. Upper and lower 0.019" x 0.025" SS Braided Medium Coordinated wires. Spaces are consolidated. Good OJ/OB. Lower right 5 was repositioned. Continues with vertical triangular elastics 3/16" 4oz.



Intraoral final photos. 22 months of active Tx.



Extraoral final photos.



Intraoral photos 1 year post Tx.

Final comments:

I started this case with full comprehensive orthodontic treatment earlier than I usually do. I had to balance length of treatment versus correcting the canine's crossbite (patient chief complaint) and functional shift as soon as possible. Should I wait to have all her permanent teeth at the time of initial bonding or should I start right away, solve the cross bite, but make the treatment longer than otherwise? We (patient, parents and myself) decided to start treatment right away. Stage I lasted 12 months, Stage II lasted 8 months and Stage III, 2 months. Stage I was the longest one, which is not very common. Generally the longest stage is Stage II. I had her on a 0.014" and then 0.018" INITIALLOY wires for several months waiting for her premolars and canines to completely erupt. We worked hard on her oral hygiene and motivation. Fortunately, patient responded exceptionally!