

Comprehensive, non-surgical, extraction orthodontic treatment plan:

- Insertion of Nance appliance in the maxillary arch.
- Extraction of upper and lower first premolars (14, 24, 34, 44).
- Bonding of orthodontic fixed appliances (0.022" Straight Wire; Andrews Prescription) on all the maxillary and mandibular teeth (5-5), and banding of ↓ 6's.
- Retraction of the ↑↓ canines with sectional 0.016" X 0.022" TMA loop wires.
- After retracting the canines, all the anterior teeth will be engaged with continuous 0.016" NiTi archwires.
- Lower ARS in the premolar area will be required to balance the Bolton discrepancy.
- Finishing and detailing with ↑↓ 0.019" X 0.025" TMA.
- Retention with ↑↓ Hawley retainers and mandibular 3-3 fixed bonded retainer.

Comprehensive, non-surgical, extraction orthodontic treatment plan:

- Insertion of Nance appliance in the maxillary arch.
- Extraction of upper first premolars and lower second premolars (14, 24, 35, 45).
- Bonding of orthodontic fixed appliances (0.022" Straight Wire; Andrews Prescription) on the maxillary teeth (7-7).
- Alignment of maxillary teeth with 0.016" NiTi, then retract the canines with Class I forces on 0.018" S.S.
- Bonding the lower arch 7-7, banding of ↓ 6's, and align with 0.016" NiTi.
- Maintenance of reciprocal anchorage in the lower arch to alleviate the crowding.
- Retraction of the upper incisors with T-loop-0.019" X 0.025" TMA, and close remaining lower spaces on 0.019" X 0.025" S.S (ends rounded) and Class II elastics.
- Upper bonding or lower IPR is required to balance the Bolton discrepancy.
- Retention with maxillary wrap-around or Hawley retainer (with anterior bite plane) and mandibular 3-3 fixed bonded retainer.

Comprehensive, non-surgical, non-extraction orthodontic treatment plan:

- Careful evaluation of the TMJs and referral for tomograms for the right and left condyles.
- Use of Bite Opening Bionator with 7 mm mandibular advancement, and edge to edge incisors relation.
- Follow-up the use of the Bionator for 6 months and instructions of turning the lower expansion screw.
- Reassessment with full records and decide to continue or extract upper and lower first premolars.
- Bonding of orthodontic fixed appliances (0.022" Straight Wire; Andrews Prescription) on the maxillary and mandibular teeth (5-5), and banding of ↑↓ 6's.
- Alignment of the teeth with 0.016" NiTi, followed by 0.019" X 0.025" NiTi.
- Finishing and detailing with ↑↓ 0.019" X 0.025" TMA, and use Class II elastics if needed.
- Retention with maxillary and mandibular Hawley retainers.

Comprehensive, non-surgical, extraction orthodontic treatment plan:

- Insertion of Transpalatal Arch (TPA) on ↑ 6's.
- Extraction of the upper and lower first premolars (14, 24, 34, 44).
- Bonding of orthodontic fixed appliances (0.022" Straight Wire; Roth Prescription) on all the maxillary and mandibular teeth (7-7), and banding of ↓ 6's.
- Alignment of ↑↓ arches with 0.016" NiTi, then ↑↓ 0.019" X 0.025" NiTi.
- Closure of anterior spaces with ↑↓ 0.019" X 0.025" S.S. double keyhole loop archwires.
- Maintaining reciprocal anchorage in the mandibular arch, Class II elastics when needed.
- Finishing and detailing with ↑↓ 0.016" S.S.
- Retention with maxillary wrap-around and lower spring-aligner retainers.