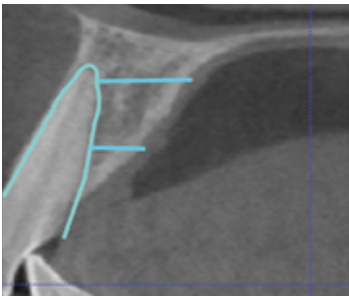


Distalization



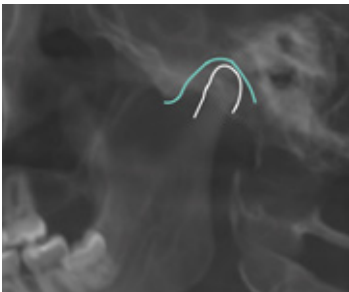
Amount of required distalization

- Presence of 8th teeth;
 - Premolar (sometimes also canine) root position relative to sinus.
-



Amount of required retraction

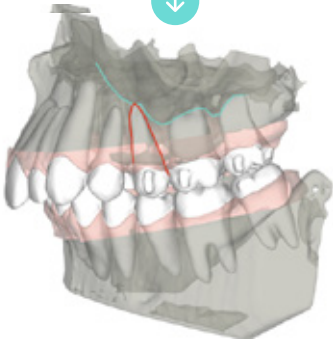
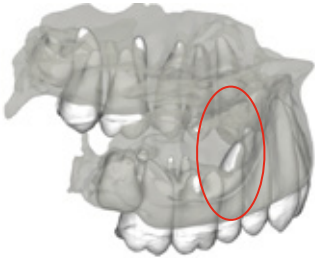
- Amount of bone for retraction;
 - Possibility of incisor palatal root torque.
-



Planned mandible displacement

- TMJ Position.
-

How to avoid mistakes when planning distalization.



Sinus

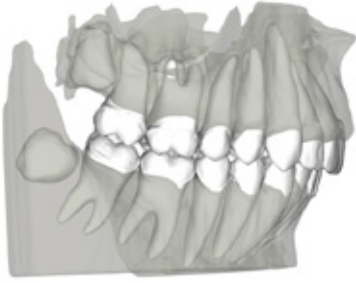
Roots UL5 and UR5 are in the sinus

- Estimate space between 2nd premolar and sinus = amount of predictable bodily movement;
- Plan 2nd premolar distal crown tipping and premolar IPR for Class I canine relationship;
- Reduce the amount of distalization for 1st and 2nd molars;
- If needed, plan antagonist teeth mesialization to achieve Class I molar relationship.

Retraction

Large amount of retraction

- Plan extra incisor vestibular root torque;
- Reduce amount of retraction and increase amount of retrusion;
- Adapt the angle between upper and lower incisors to fit the anatomy of a particular patient.



Planned mandible displacement

- Keep Class II relationship for canines and molars;
- Keep overjet;
- Plan upper and lower incisors intrusion with overcorrection;
- Plan extra extrusion for lower premolars (0.5 mm) to compensate for their intrusion.*

* If incisor intrusion is more than 2 mm—plan premolar extrusion up to 1mm simultaneously with intrusion.



Patient management

- Monitor distalization;
- Control IPR;
- If needed — at the stage of intrusion add incisor IPR to prevent their rotation.



Must-dos for Distalisation:

- Always expand (right combination of tipping and bodily expansion);
- Use bite ramps in case of Deep bite;
- Use torque controls;
- Overcorrection for incisor intrusion;
- Plan canine distal root angulation with overcorrection;
- Always leave overjet (1-2 mm).

With 3D Predict distalization is faster and possible without any additional appliances.

Case Selection

Clinical condition	Predict Super Short case (≤8 steps)	Predict Short (≤14 steps)	Deep CBCT / Predict Full (15+ steps)
Class	Class I	Class I (no change or occlusion class)	Class I, II or III
Crowding	< 1mm per arch	< 2mm per arch	2-10mm per arch
Spaces	< 1mm per arch	< 2mm per arch	≥ 2mm per arch
Midline discrepancy	No	No	Yes
Rotation	Incisors / Canines < 10° Premolars / Molars < 10°	Incisors < 15° Canines < 15° Premolars / Molars < 10°	Incisors 15°–50° Canines 15°–50° Premolars / Molars 10°–30°
Angulation	No	Incisors / Canines < 10° Premolars / Molars < 10°	Incisors / Canines 10°–30° Premolars / Molars > 30°
Torque	Incisors / Canines < 10°	Incisors / Canines < 15° Premolars / Molars < 10°	Incisors / Canines > 30° Premolars / Molars > 30°
Intrusion	Incisors / Canines < 0.5mm	Incisors / Canines < 1mm Premolars / Molars < 0.5mm	Incisors / Canines > 3mm Premolars / Molars > 2mm
Extrusion	No	No	Incisors / Canines > 3.5mm Premolars / Molars > 1mm
Distalization	No	Incisors / Canines < 1mm	Incisors / Canines > 6mm Premolars / Molars: MX > 6mm, MN > 1mm
Mesialization	No	Incisors / Canines < 1mm	Incisors / Canines > 6mm Premolars / Molars > 1mm
Open bite	No	No	Yes
Deep bite	No	No	Yes
Cross bite	No	No	Yes
Movement of teeth type	Movement of 4 to 13 teeth only	Movement of 4 to 13 teeth only	All teeth

If at least one parameter corresponds to the full case, select full case.

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