

## Movement Classification Guidelines

The following Movement Difficulty Guidelines are intended as a guideline only. Each case needs to be assessed on its own merits. Teeth movement can be unpredictable and various factors including anatomy and patient compliance may affect the duration and effectiveness of treatment.

Occasionally, cases within recommended parameters may not be treated successfully and other cases may require more than the allotted number of aligners. It is important to balance the patients expectations of optimal outcome with the potential limitations and complications.

With more difficult cases and refinements due to limited movement, longer periods of aligner wear and closer monitoring is advised.

### Types of Malocclusions



#### Crowding



MOST CROWDED ARCH



#### Spacing



MOST SPACED ARCH



#### Midline Adjustment



DISCREPANCY FROM IDEAL OCCLUSION



#### Overjet



DISCREPANCY FROM IDEAL OCCLUSION



#### Overbite



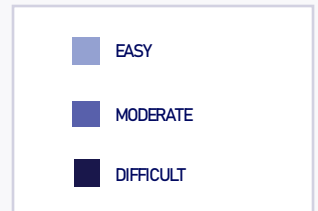
DISCREPANCY FROM IDEAL OCCLUSION



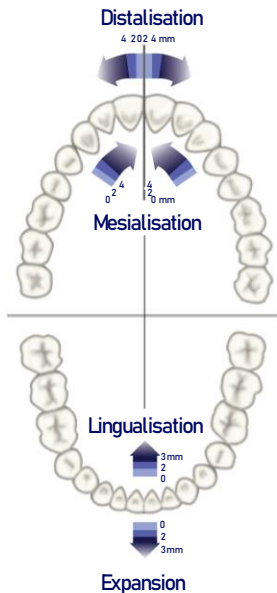
#### Open Bite



DISCREPANCY FROM IDEAL OCCLUSION

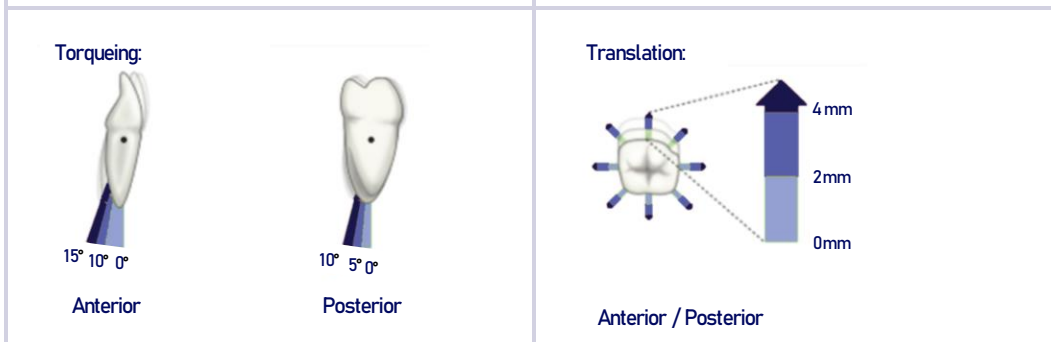
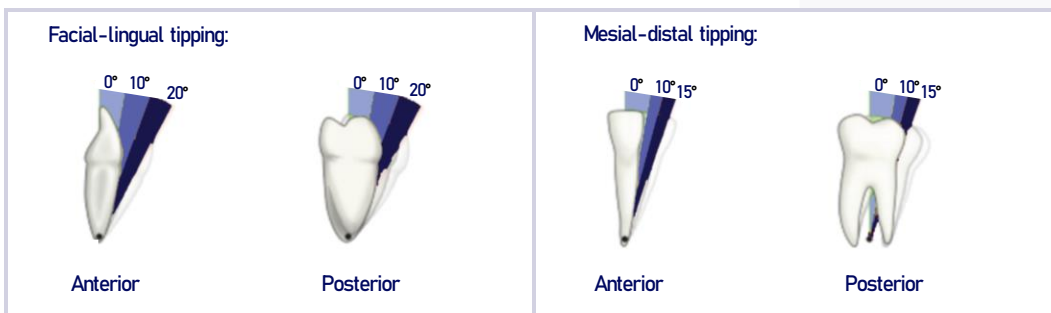
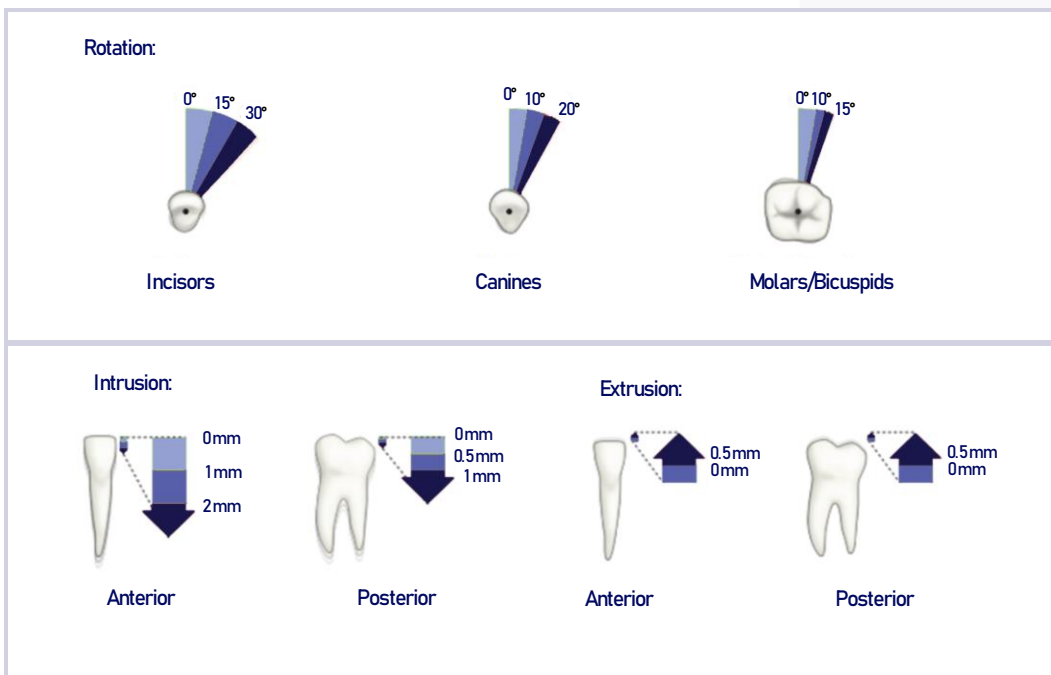


### Arch Movements



To estimate of the level of complexity calculate the total amount of arch movement expected in each quadrant.

Directional Movement



# Movement Classification Guidelines Summary

Cases that have the following conditions can be difficult or impossible to treat with clear aligners:

- Any type, method, or movement indicated as difficult in the Movement Classification Guidelines;
- Centric-relation and centric-occlusion discrepancies;
- Teeth with short clinical crowns;
- Arches with multiple missing teeth;
- If the second molars have not yet erupted;
- Poor oral hygiene or active periodontal disease;
- Dental prosthetics or implants; and/or
- Severe bruxism.

Tooth Movements	Easy	Moderate	Difficult
<b>Facial-lingual tipping</b>			
- Anterior	0 - 10°	10 - 20°	>20°
- Posterior	0 - 10°	10 - 20°	>20°
<b>Medial-distal tipping</b>			
- Anterior	0 - 10°	10 - 15°	>15°
- Posterior	0 - 10°	10 - 15°	>15°
<b>Torqueing</b>			
- Anterior	0 - 10°	10 - 15°	>15°
- Posterior	0 - 10°	10 - 15°	>15°
<b>Translation</b>			
- Anterior/Posterior	0 - 2 <sub>mm</sub>	2 - 4 <sub>mm</sub>	>4 <sub>mm</sub>
<b>Intrusion</b>			
- Anterior	0 - 1 <sub>mm</sub>	1 - 2 <sub>mm</sub>	>2 <sub>mm</sub>
- Posterior	0 - 0.5 <sub>mm</sub>	0.5 - 1 <sub>mm</sub>	>1 <sub>mm</sub>
<b>Extrusion</b>			
- Anterior	NA	0 - 0.5 <sub>mm</sub>	>0.5 <sub>mm</sub>
- Posterior	NA	0 - 0.5 <sub>mm</sub>	>0.5 <sub>mm</sub>
<b>Rotation</b>			
- Incisors	0 - 15°	15 - 30°	>30°
- Canines	0 - 10°	10 - 20°	>20°
- Molars/Bicuspids	0 - 10°	10 - 15°	>15°

Methods (mm)	Easy	Moderate	Difficult
Distalisation	0 - 2	2 - 4	>4
Mesialisation	0 - 2	2 - 4	>4
Lingualisation	0 - 2	2 - 3	>3
Expansion	0 - 2	2 - 3	>3

Malocclusion (mm)	Easy	Moderate	Difficult
Crowding	0 - 3	3 - 6	>6
Spacing	0 - 3	3 - 6	>6
Midline misalignment	0 - 2	2 - 4	>4
Overjet	0 - 2	2 - 4	>4
Overbite	0 - 1	1 - 3	>3
Open bite	0 - 0.5	0.5 - 1	>1

Movement Type	Viability
Facial-lingual tipping	Yes
Mesial-distal tipping	Yes
Torqueing	Yes
Translation	Difficult
Intrusion	Yes
Extrusion	Yes
Distalisation	Yes
Mesialisation	Yes
Lingualisation	Difficult
Expansion	Difficult