

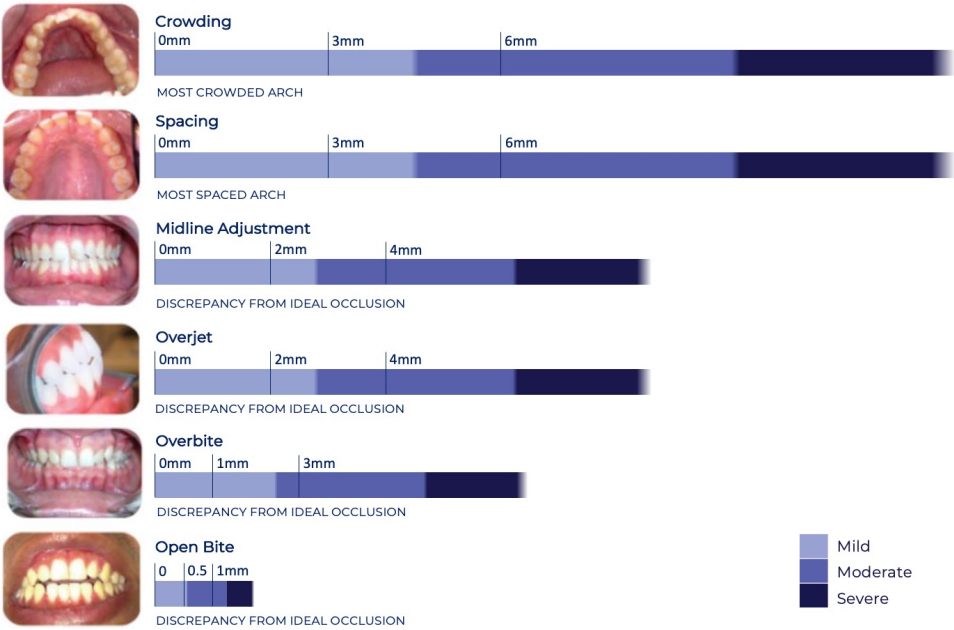
Movement Difficulty Classification Guidelines

The following Movement Difficulty Classification Guidelines are intended as a guide 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.

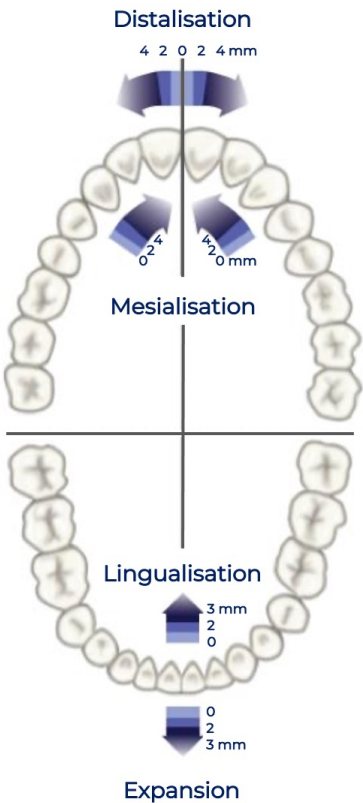
Occasionally, cases within recommended parameters may not be treated successfully and other cases may require more than the allotted number of aligners. It is important to balance the patients expectations of optimal outcome with potential limitations and complications.

With more difficult cases refinements may be required due to limited movement, and it is advised the patient has longer periods of aligner wear and has closer monitoring.

Types of Malocclusions



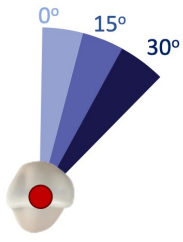
Types of Movements



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

Directional Movement

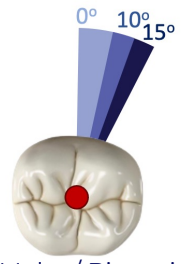
Rotation:



Incisors

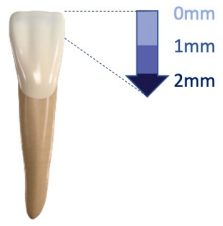


Canines

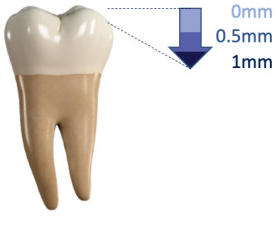


Molar / Bicuspids

Intrusion:

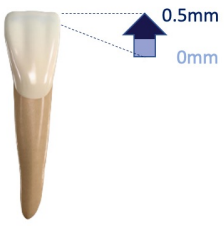


Anterior



Posterior

Extrusion:



Anterior



Posterior

Intrusion:



Anterior



Posterior

Mesial-distal tipping:



Anterior



Posterior

Torquing:

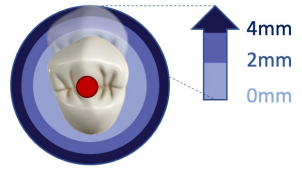


Anterior



Posterior

Translation:



Anterior / Posterior

- Mild
- Moderate
- Severe

Movement Difficulty 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 Difficulty 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	Mild	Moderate	Severe
Facial-lingual tipping			
Anterior	0 - 10°	10 - 20°	> 20°
Posterior	0 - 10°	10 - 20°	> 20°
Mesial-distal tipping			
Anterior	0 - 10°	10 - 15°	> 15°
Posterior	0 - 10°	10 - 15°	> 15°
Root tipping			
Anterior	0 - 10°	10 - 15°	> 15°
Posterior	0 - 5°	5 - 10°	> 10°
Rotations			
Incisors	0 - 15°	15 - 30°	> 30°
Canines	0 - 10°	10 - 20°	> 20°
Molar/Bicuspid	0 - 10°	10 - 15°	> 15°
Translation			
Anterior/Posterior	0 - 2mm	2 - 4mm	> 4mm
Torquing			
Anterior	0 - 10°	10 - 15°	> 15°
Posterior	0 - 5°	5 - 10°	> 10°
Intrusion			
Anterior	0 - 1mm	1 - 2mm	> 2mm
Posterior	0 - 0.5mm	0.5 - 1mm	> 1mm
Extrusion			
Anterior	NA	0 - 0.5mm	> 0.5mm
Posterior	NA	0 - 0.5mm	> 0.5mm

Methods (mm)	Mild	Moderate	Severe
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)*	Mild	Moderate	Severe
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

*See the [Diagnosis Type Treatment Guide](#) for more information on treatment options by experience level.

Movement Difficulty Summary	Skill
Facial-lingual movements	Novice
Root tipping	Novice
Mesial-distal movements	Experienced
Translation	Experienced
Retraction (Lingualisation)	Experienced
Mesialisation (Protraction)	Experienced
Distalisation	Experienced
Most rotations	Experienced
Intrusions (anterior)	Experienced
Torqueing	Advanced
Rotation (posterior)	Advanced
Intrusions (posterior)	Advanced
Extrusions	Advanced
Expansion / Constriction	Advanced