

# Quick reference guide to Orthodontic assessment and treatment need

## Eruption Patterns

### Eruption pattern of deciduous teeth

Upper		AB	D	C	E
Lower	A	B	D	C	E

### Eruption pattern of permanent teeth

Upper	6	1	2	4	5	3	7	8
Lower	6	1	2	3	4	5	7	8

## Average Eruption Dates<sup>1</sup>

### Average eruption dates of deciduous teeth (in months)

Tooth	A & B	C	D	E
Eruption Date	6-9	16-18	12-14	20-30

### Average eruption dates of permanent teeth (in years)

Tooth	1	2	3	4	5	6	7	8
Uppers	7-9	7-9	11-12	10-11	10-12	6-7	11-13	17-21
Lowes	6-8	6-8	9-10	10-12	11-12	6-7	11-13	17-21

#### References

1. Scott JH & Symons NBB, 1990, Introduction to Dental Anatomy 9<sup>th</sup> ed. Churchill Livingstone.
2. Brook PH & Shaw WC (1989). The development of an index of orthodontic treatment priority. Eur J Orthod 11 : 309-320.

## Index of Orthodontic Treatment Need<sup>®</sup>(DHC)<sup>2</sup>

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### Grade 3 (Borderline need) For NHS treatment also need aesthetic >6

- 3a. Increased overjet 3.5mm ≤ 6mm with incompetent lips
- 3b. Reverse overjet 1mm ≤ 3.5mm
- 3c. Anterior or posterior crossbites with 1mm ≤ 2mm discrepancy between retruded contact position and intercuspal position
- 3d. Contact point displacements 2mm ≤ 4mm
- 3e. Lateral or anterior open bite 2mm ≤ 4mm
- 3f. Deep overbite complete to gingival or palatal tissues but no trauma

### Grade 4 (Need treatment)

- 4h. Less extensive hypodontia requiring pre-restorative orthodontics or orthodontic space closure to obviate the need for a prosthesis.
- 4a. Increased overjet 6mm ≤ 9mm
- 4b. Reverse overjet >3.5mm with no masticatory or speech difficulties
- 4m. Reverse overjet 1mm < 3.5mm with recorded masticatory and speech difficulties.
- 4c. Anterior or posterior crossbites with greater than 2mm discrepancy between retruded contact position and intercuspal position
- 4l. Posterior lingual crossbite with no functional occlusal contact in one or both buccal segments
- 4d. Severe contact point displacements >4mm
- 4e. Extreme lateral or anterior open bites >6mm
- 4f. Increased and complete overbite with gingival or palatal trauma
- 4t. Partially erupted teeth, tipped and impacted against adjacent teeth
- 4x. Presence of supernumerary teeth

### Grade 5 (Need treatment)

- 5i. Impeded eruption of teeth (except for third molars) due to crowding, displacement, the presence of supernumerary teeth, retained deciduous teeth or any pathological cause
- 5h. Extensive hypodontia with restorative implications (>1 tooth missing in any quadrant) requiring pre-restorative orthodontics
- 5a. Increased overjet >9mm
- 5m. Reverse overjet >3.5mm with reported masticatory and speech difficulties
- 5p. Defects of cleft lip and palate and other craniofacial anomalies
- 5s. Submerged deciduous teeth

# Quick reference guide to Orthodontic assessment and referral

Scott JK and Atack NE, 2015

Stage	Normal Development	Indications for referral
<b>Deciduous Dentition</b>	<ul style="list-style-type: none"> <li>• Normal eruption pattern (see overleaf)</li> <li>• Spacing is normal (primate spaces)</li> <li>• Encourage cessation of thumb/finger/dummy sucking before 5 years old</li> </ul>	<ul style="list-style-type: none"> <li>• Severe skeletal discrepancies</li> <li>• Severely delayed dental development</li> <li>• Missing/supplemental teeth</li> <li>• History of head and neck radiotherapy +/- chemotherapy</li> <li>• Advice for balancing/compensating extractions</li> </ul>
<b>Mixed Dentition</b> 42	<ul style="list-style-type: none"> <li>• Normal eruption pattern (see overleaf)</li> <li>• Contralateral teeth should erupt within 6/12</li> <li>• Midline (median) diastema normal</li> <li>• Maxillary canines palpable at 10 years old</li> </ul>	<ul style="list-style-type: none"> <li>• Severe skeletal patterns where early treatment may be appropriate e.g. developing class II/III</li> <li>• Dental anomalies e.g. double teeth, dens-in-dente, talon cusps</li> <li>• Developmentally missing permanent teeth</li> <li>• Supernumerary teeth</li> <li>• Teeth in unfavourable positions e.g. canines</li> <li>• Impacted first permanent molars</li> <li>• Infraoccluded teeth</li> <li>• Crossbites</li> <li>• Extraction advice where severe crowding evident or first molars have poor prognosis</li> <li>• Advice following trauma to permanent teeth</li> </ul>
<b>Permanent Dentition</b>	<ul style="list-style-type: none"> <li>• Skeletal base acceptable</li> <li>• All permanent teeth present</li> <li>• Class I incisors</li> <li>• Class I molar relationship</li> <li>• Average overjet 2-4mm</li> <li>• Average overbite (1/3<sup>rd</sup> – ½ lower inc coverage)</li> <li>• Well aligned arches</li> </ul>	<ul style="list-style-type: none"> <li>• Clear-cut IOTN eligible for NHS treatment?  <b>YES (IOTN 3/6 and above)</b> Refer to NHS  <b>NO (below IOTN 3/6)</b> Discuss private referral to Orthodontic provider</li> <li>• Borderline cases (Grade 3 below 3/6) can be referred for NHS assessment as these cases can be difficult to evaluate</li> <li>• Remember, every patient has the right to a second opinion</li> <li>• Adults may qualify for NHS treatment e.g. if they require complex multidisciplinary care. Otherwise, please refer them to an orthodontic provider for private treatment</li> </ul>