

Index of Orthodontic Treatment Need IOTN

Background

The Index of Orthodontic Treatment Need (IOTN) was developed by Shaw, Richmond and O'Brien at Manchester Dental School in the 1990's. They were based on a number of existing orthodontic indices. Since then the UK NHS has introduced their use to restrict access to orthodontic care.

IOTN has two components - Dental Health Component (DHC) and Aesthetic Component (AC). In the NHS patients must score IOTN 4 or 5 for treatment. In patients with IOTN 3 the aesthetic component is applied, those patients with an IOTN DC score of 3 AND an IOTN AC score of 6 or greater, qualify for treatment.

The Dental Health Component (DHC) has 5 Grades:

IOTN 1	Almost perfection
IOTN 2	Minor irregularities
IOTN 3	Greater irregularities which normally do not need treatment for health reasons
IOTN 4	More severe degrees of irregularity and these do require treatment for health reasons
IOTN 5	Severe dental health problems

Only the worst feature of the occlusion is scored (i.e. you do not add a number of minor feature scores together).

The aide memoir to its use is MOCDO : Missing Overjet Crossbite Displacement Overbite, Look for the worst first, i.e. those features that score IOTN 5, then IOTN 4, 3 etc

The table below allows quick reference to IOTN DHC with the most common features.

	M	O	C	D	O
IOTN 5	Cleft lip & Palate Impacted / Ectopic teeth Hypodontia >4 missing teeth	> 9mm Overjet > - 3.5mm reverse Overjet			
IOTN 4	Supernumeraries Hypodontia <4 missing teeth	> 6mm Overjet -2mm to -3.5mm reverse Overjet	Crossbite with >2mm displacement between RCP and ICP	> 4mm contact point displacement	Deep Overbite + Trauma >4mm Anterior Open Bite
IOTN 3		> 4mm Overjet <-2mm reverse Overjet	Crossbite with >1mm displacement between RCP and ICP	<4mm contact point displacement	Deep Overbite (no trauma) <4mm Anterior Open Bite
IOTN 2		>2mm Overjet		<2mm contact point displacement	
IOTN 1				Minimal irregularity	

The tricky part is measuring contact point displacement. It is not a measure of crowding, rather the distance between the natural contact points of adjacent teeth, measure in millimetres.

The Aesthetic Component has 10 grades

The observer is meant to score the severity of the malocclusion in comparison with the image scale below. However, most incorrectly try and match the malocclusion with the images. It is probably more accurate to think of the AC component as an 'attractiveness scale'; the worst you can imagine scores 10 and the perfect smile 1, then score the presenting malocclusion

1		6	
2		7	
3		8	
4		9	
5		10	