

Orthodontic Referrals

NHS Orthodontics: IOTN index

Please provide relevant current x-rays and ensure that they are marked correctly and attached to the online referral form.

Patients should only be referred if they fulfil the criteria below.

- **The patient should be referred at the appropriate dental age.** Normally patients are ready for treatment when most of the permanent dentition has erupted. Generally, two premolars or a premolar and a canine should be erupted in all four quadrants.
- Exceptions to this rule are those children with severe malocclusions or where possible interceptive treatment, such as pushing an incisor over the bite or delayed tooth eruption or developing Class III, may require the child to be seen at a younger age (8-10 yrs). Patients with non-routine pathology such as root resorption or cysts should also be referred early.
- The patient's dental care must be adequate. Excellent oral hygiene i.e. no active gum disease or periodontal pockets, no bleeding on probing and no untreated caries. Careful dietary control is essential before orthodontic appliances can be placed in the mouth. If these fundamental criteria are not met then severe periodontal and tooth damage can occur during orthodontic treatment.
- **Patient motivation and "want" for treatment.** The probability of the patient having to wear either a removable or fixed brace to correct their problem should be fully discussed with the patient prior to their referral. There is little point referring a patient who is not prepared to commit to wearing an orthodontic appliance for up to 3 years.

Occlusal Indices

Orthodontics has a well-developed series of national and international Occlusal Indices which can be used to assess treatment need for an individual patient. The index most often used to assess this is the Index of Orthodontic Treatment Need – IOTN.

The index has two components:

- Aesthetic Component (AC)
- Dental Health Component (DHC)

IOTN index

NHS Scotland only approve orthodontic treatment to treat child patients in **IOTN 3.6 = DHC 3 and AC 6** and above for orthodontic treatment.

The detailed IOTN categories are as follows:

IOTN Grade 3 – Moderate treatment need

- a. Increased overjet 3.5 mm but ≤ 6 mm with incompetent lips.
- b. Reverse overjet greater than 1 mm but ≤ 3.5 mm
- c. Anterior or posterior crossbites with 1 mm but ≤ 2 mm discrepancy between retruded contact position and intercuspal position.
- d. Displacement of teeth 2 mm but to ≤ 4 mm.
- e. Lateral or anterior open bite greater than 2 mm but ≤ 4 mm.
- f. Increased and complete overbite without gingival or palatal trauma.

IOTN Grade 4 – Great treatment need

- a. less extensive hypodontia requiring prerestorative orthodontics or orthodontic space closure to obviate the need for prosthesis
- b. Increased overjet 6 mm but ≤ 9 mm
- c. Reverse overjet 3.5 mm with no masticatory or speech difficulties
- d. Anterior or posterior crossbites with 2 mm discrepancy between retruded contact position and intercuspal position
- e. Severe displacements of teeth 4 mm
- f. Extreme lateral or anterior open bites 4 mm
- g. increased and complete overbite with gingival or palatal trauma
- h. Posterior lingual crossbite with no functional Occlusal contact in one or both buccal segments
- i. Reverse overjet greater than 1 mm but less than or equal to 3.5mm with recorded masticatory and speech difficulties
- j. Partially erupted teeth, tipped and impacted against adjacent teeth
- k. Supplemental teeth

IOTN Grade 5 – Very great treatment need

- a. Increased overjet 9 mm
- b. Extensive hypodontia with restorative implications (more than one tooth missing in any quadrant) requiring pre-restorative orthodontics

- c. Impeded eruption of teeth (with the exception of third molars) due to crowding, displacement, the presence of supernumerary teeth, retained deciduous teeth and any pathological cause
- d. Reverse overjet greater than 3.5 mm with reported masticatory and speech difficulties
- e. Defects of cleft lip and palate
- f. Submerged deciduous teeth

Details of Aesthetic component

Grade 1 = most aesthetic arrangement of the dentition

Grade 10 = least aesthetic arrangement of the dentition

Grade 1 - 4 = little or no treatment required

Grade 5 - 7 = moderate or borderline treatment required

Grade 8 - 10 = treatment required



Referring Adults or Patients with Mild Problems?

- Many adults are now seeking orthodontic treatment for a wide variety of problems. There is limited funding for adult orthodontic treatments with the majority being carried out on a private basis. For patients with mild orthodontic problems who do not qualify for NHS treatment some may choose to seek a private referral regardless.
- An increasing number of adults are seeking orthodontic treatment and the improvement in aesthetic appliances has made it more socially acceptable to wear braces at any age. It is really never too old to have orthodontic treatment assuming good dental health, good oral hygiene, and sufficient teeth and supporting alveolar bone.
- Aesthetic appliances include clear brackets on the labial surfaces of the teeth, lingual appliances and removable aligners. Not all cases are suitable for these appliances but your orthodontist will be able to advise the most appropriate type of brace.
- For many adults the orthodontic treatment will be similar to that received by children and adolescents. However, orthodontic treatment for some adults can prove more challenging due to the presence of restored teeth, especially crowns and bridges. Fixed-fixed bridges will need to be sectioned prior to active tooth movement, and special measures may be needed to bond brackets to porcelain. Patients should be made aware of the possibility of the need to replace such restorations at the completion of orthodontic treatment.
- Orthodontic treatment can be beneficial in contributing to oral rehabilitation in complex restorative and periodontal cases. Orthodontic treatment can be an excellent way of up-righting teeth to improve the path of insertion of fixed and removable prostheses in cases with missing teeth. This can minimize the need to remove healthy tooth tissue; such orthodontic treatment can often be achieved using sectional rather than full arch appliances. Similarly, orthodontic treatment to upright teeth and roots can create sufficient space for the placement of implants. Orthodontic treatment is also an excellent way of resolving incisor spacing following drifting due to periodontal disease. Once the periodontal disease is stabilized, space closure can be achieved with braces even in cases where there has been significant bone loss.