Orthodontic Assessment

Take a comprehensive history

- CO: Concerns about dental health, speech, function or parents may want information on the patient's need for orthodontics.
- PMH: Conditions, medications, allergies.
- · PDH: Brushing, interdental cleaning, attendance.
- History of trauma: Ankylosed teeth will not comply with orthodontic appliances.
- · Habits: digit/thumb sucking, nail biting.
- SH.

Carry out an extra-oral assessment

- · Skeletal pattern:
 - Antero-posterior: class I,II or III assessed visually or via palpation.
 - Vertical: Frankfort Mandibular plane angle, lower:upper face height ratio.
 - Transverse: Asymmetry.
- TM.I
- · Muscles of mastication.
- · Lymph nodes.
- · Salivary glands.
- Soft tissues: lip competence, lip trap, smile line, naso-labial angle.

Carry out an intra-oral assessment

- General: chart the teeth, noting ones of poor prognosis, oral hygiene, tooth quality, caries and periodontal status, toothwear.
- Aligned, spaced or crowded (mild 0-4mm, moderate 4-8mm and severe 8mm+).
- · Incisor, molar and canine relationship.
- Upper and lower incisor proclination (Frankfort plane to the long axis of the upper incisor is 110°. Lower incisors are 90° to the mandibular angle).
- · Overbite.
- · Overjet.
- Centrelines: coincident, right or left shift. Upper, lower or both.
- Crossbite: if present, check path of closure of the mandible for deviation

Take any necessary special investigations

Calculate the IOTN, See page 220

Risks:

- · Relapse: poor compliance with wearing a retainer results in this
- · Decalcification: poor oral hygiene will cause this
- Root resorption: average of 1mm over 2 years of wearing fixed appliances, this may be greater in rotational forces, large span movements, excessive force and intrusion movements
- · Soft tissue trauma
- · Toothwear against appliances
- · Loss of periodontal support
- Loss of vitality
- Failed treatement

Discuss the treatment options and risks and benefits with the patient and refer to an orthodontist if needed