

# Classification of Orthodontic Anomalies

Sagittal plane:

- Angle Classification
- Overjet

Vertical plane:

- Overbite
1. Open Bite
  2. Deep Bite

Transversal plane:

- Scissor Bite
- (Posterior) Cross Bite
- Midline Deviation

## Angle Classification

### Class I

- The mesiobuccal cusp of the maxillary first molar lies in the mesiobuccal groove of the mandibular first molar, but the other teeth may have other anomalies such as spacing, crowding, open bite etc.



Class I

### Class II

- Is also called Distocclusion, or Mandibular Retrognathism
- The mesiobuccal cusp of the upper molar is situated anterior to the mesiobuccal groove
- Two subdivisions exist:

1. Division 1 (II/1) --> Anterior teeth protrude, increased overjet



Class II/1

1. Division 2 (II/2) --> Central incisors are retroclined and sometimes the lateral incisors are seen to overlap the centrals



Class II/2

### Class III

- Is also called Mandibular Prognathism
- The mesiobuccal cusp of the upper molar lies posterior to the mesiobuccal groove of the first mandibular molar

## Overjet

- Is the distance between the tip of the upper and the tip of the lower incisors in the horizontal plane
- The normal distance is ~ 1.5-2.5 mm
- We distinguish two types of overjet:

1. Positive overjet --> Distance >2.5 mm
2. Negative overjet (anterior cross bite) --> Distance <1.5 mm



Class III

## Overbite

Normally the upper centrals should cover between 1/3 - 1/4 of the anterior surface of the lower centrals

Any disturbance in this coverage can result in:

- Open Bite
- Deep Bite

## Scissor Bite

- Is a rather rare orthodontic malocclusion, where the palatal surface of the upper molars rest laterally from the buccal surface of the mandibular molars
- Typical finding in Brodie syndrome



Scissor Bite

## (Posterior) Cross Bite

In this malocclusion the buccal cusps of the upper molars lie in the opposing central fossa of the mandibular molars (in physiological conditions the **palatal cusps** of the upper molars lie in the opposing central fossa)



Posterior Cross Bite

## Midline Deviation

Occurs when the midline of the upper jaw doesn't coincide with that of the lower jaw



Midline Deviation

## Other Orthodontic problems

- Crowding

Is the result of lack of space in the dental arch

- Spacing

Is the result of excess of space in the dental arch

Wide interdental spaces

- Diastema

Space between the two central incisors

- Rotation

The tooth is rotated in the longitudinal axis