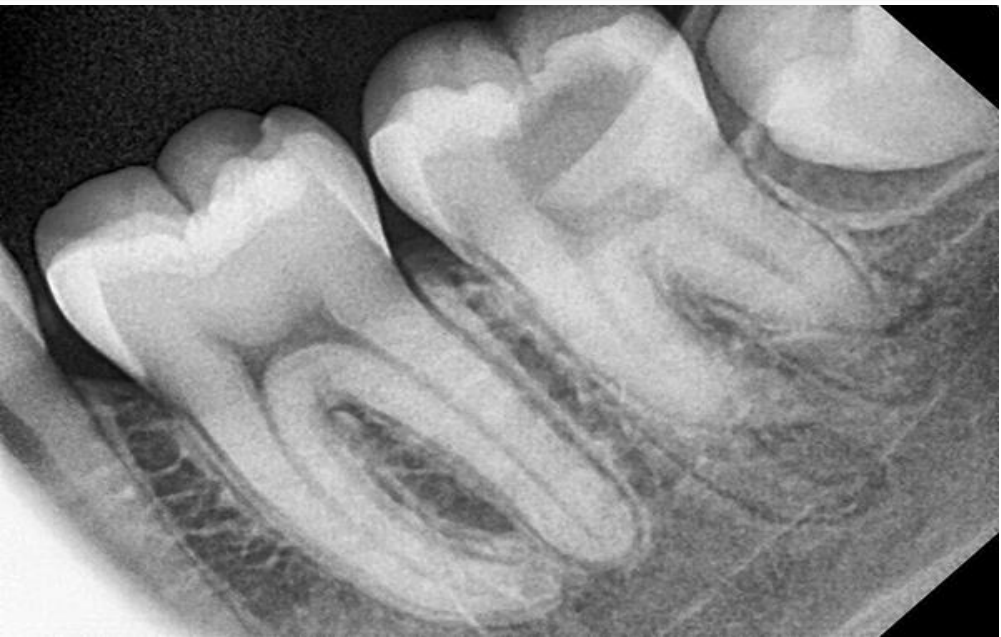




# Dilaceration and Accessory roots

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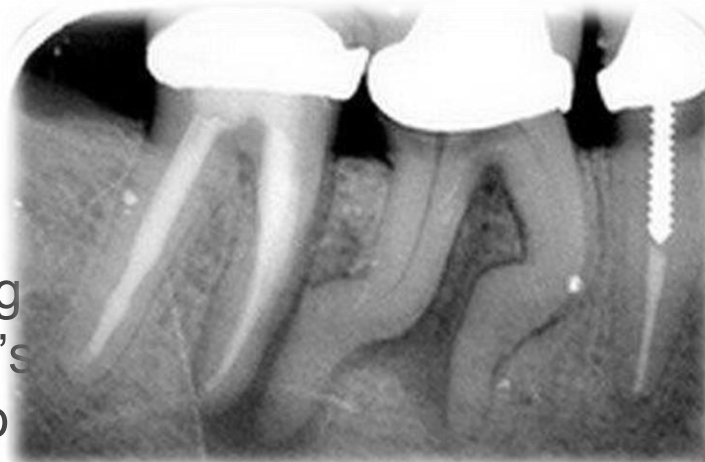
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# Dilaceration and it's Etiology

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- It's a root abnormality which results in abnormal root angle or distortion in crown angulation.
- It's caused by distortion in HERS during the root development. HERS – Hertwig's epithelial root sheath which functions to induce root dentin formation and controls the shaping of a root(s).
- The distortion main causes are trauma, injury or pressure.



- Root angle distortion in the 1<sup>st</sup> right mandibular molar tooth. The mesial and distal roots are dilacerated.

- Distortion in crown angulation of permanent mandibular right central incisor.



# Role of Dental Team

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- May cause complications during tooth extraction.
- May cause complications during the Root Canal Treatment.
- May cause delayed eruption even prevent the eruption of the tooth.
- As for a dental hygienist a preoperative radiographic examination is required for assessment as well as patient education.
- If crown angulation occurs it may create a problematic and difficult area for a patient self-hygiene, where simple brushing wouldn't help.



# Accessory Roots

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**AKA Supernumerary roots**

**Is defined as developmental radicular morphological variation that cause for a tooth to acquire an extra root.**

# Etiology

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- Occurs mainly because of the pressure, trauma or metabolic disease that affects HERS during the development of the tooth.
- Other causes include genetic factors, some diseases and different ethnic groups.
- Can affect any tooth, rare in incisors, most common in permanent third molars.



**Distal view**

**Mesial view**



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The top picture shows the permanent mandibular second molar to have accessory root. Usually a mandibular second molar may have from one to three roots, but in the current case there are four roots present with one accessory root.



The bottom pictures shows a root canal treatment was completed and we can clearly see four roots with four canals present.

# Role of Dental Team

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- A preoperative radiographic examination is required for evaluation and assessment to make sure there are no disturbances present.
- May cause complications during tooth extraction, whereas the root may fracture or break during the process.
- May cause complications during endodontic treatment, whereas the roots may have a difficult access point, or they may not be spotted by a dentist during the procedure and evaluation.

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