



# ENAMEL PEARL

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## ENAMEL PEARL

- Developmental disturbance when enamel found ectopically from the crown.
- It is a small, spherical enamel projection on the root surface, especially at the cemento-enamel junction (CEJ), or in the furcation on molars where the roots divide.
- Also known as enamelous, enamel droplets, enamel globules, enamel knots, enamel exostoses.



## CLINICAL FEATURES

- Size can vary from 0.3 to 4 millimeters
- May affect 1.1 to 9.7 percent of the population
- May be asymptomatic
- Associated mainly with molars (over 28% of maxillary and 17% of mandibular molars)
- Mostly found on the buccal surface of second molars
- Mostly in permanent dentition, but may occur in primary dentition as well

### Types:

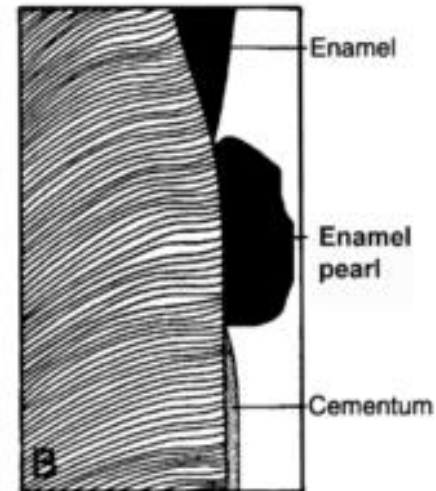
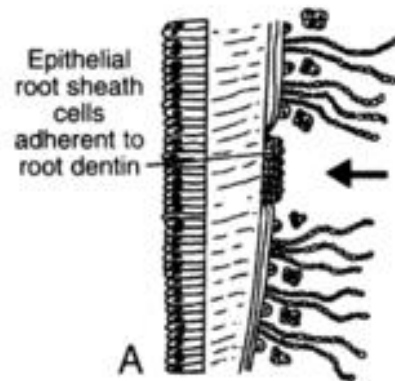
1. *True enamel pearls*, which are composed by enamel only
2. *Composite enamel pearls*, which contain a core of tubular dentine
3. *Enamel dentin pulp pearls*, which contain a pulp horn that may be an extension from the pulp chamber or root canal

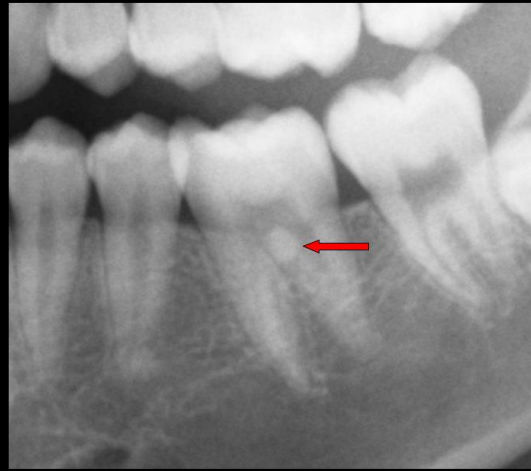
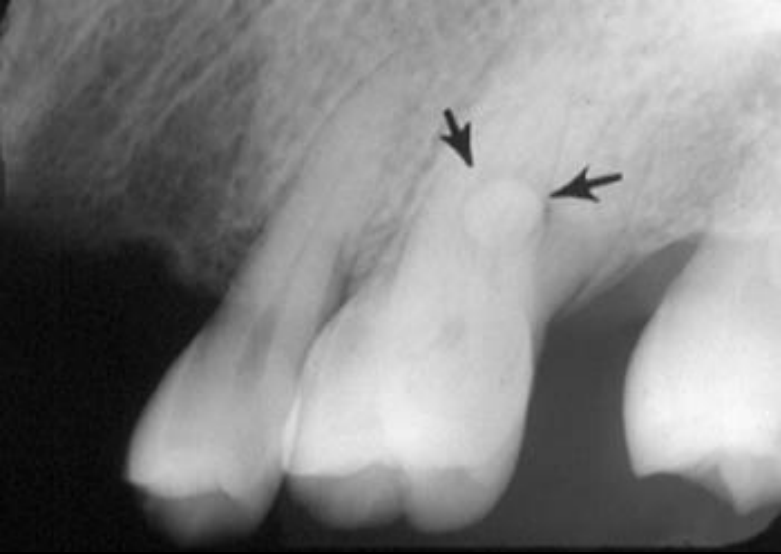


## ETIOLOGY:

- Occurs when remnants of Hertwig's epithelial root sheath differentiate into functioning ameloblasts producing enamel deposits on the root.

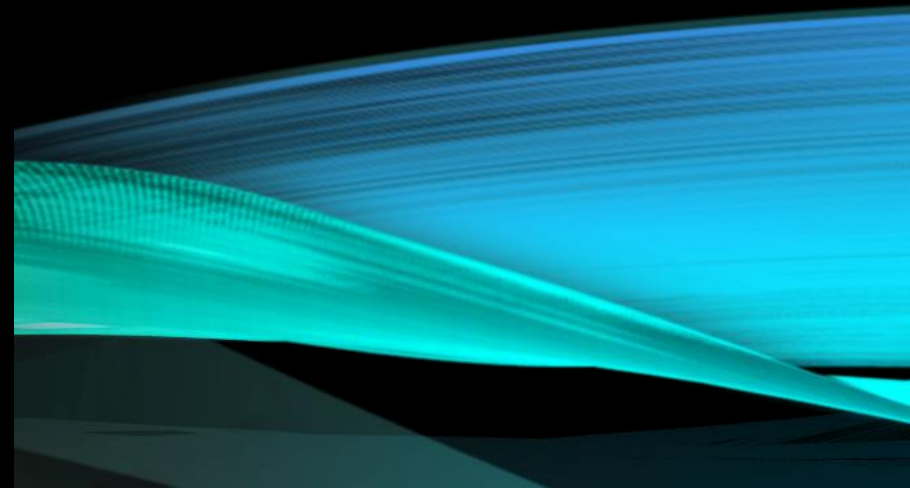
### Formation of Enamel Pearls





## RADIOGRAPHS:

Radiographically, the enamel pearl is observed as a smooth, radiopaque structure on the surface of the root.



## DENTAL IMPACT:

- Resists access for scaling and root planning
- Promotes enhanced plaque retention
- Contributes to the development of periodontal or endodontic diseases
- Contributes to the local deepening of periodontal pockets



## TREATMENT:

- ✓ Cannot be removed by instrumentation (can break instrument tip)
- ✓ May be mistaken with calculus, so an early diagnosis is important for better prognosis
- ✓ Panoramic digital radiographs are useful for detecting asymptomatic enamel pearl
- ✓ Should be surgically removed by dental burs and files
- ✓ Odontoplasty, tunneling, root separation or resection are indicated
- ✓ Enamel pearl will not reappear



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