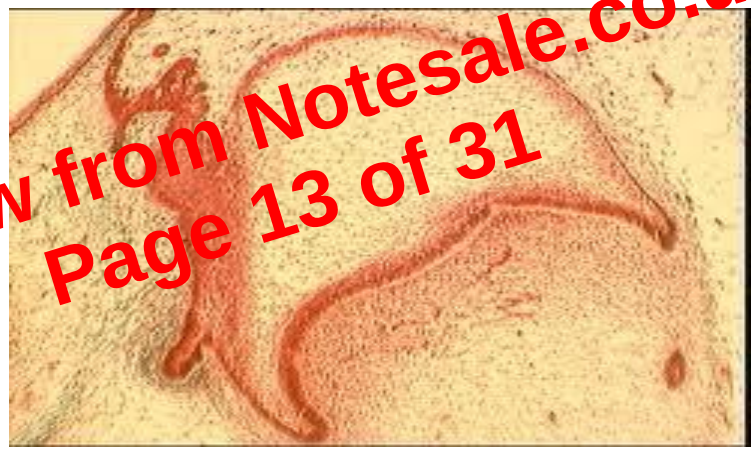
DEVELOPMENT OF DENTITION

CAP STAGE (Proliferation)



- Due to unequal growth in different parts of bud
- Deficiency → Failure of tooth germ to grow leading to less than normal number of teeth
- Excessive proliferation → Epithelial rests which can remain inactive or become active due to irritation.
- Partially differentiated cells → secretory function → cyst formation
- Fully differentiated cells→ form enamel and dentine→ odontoma or supernumerary
- Degree of differentiation leads to cyst/ odntoma /supernumerary formation

APPOSITION

- Layer like deposition of non-vital extracellular secretion in the form of a tissue matrix
- Deposited by ameloblasts, odontoblasts
- Deposited in a definite pattern and a definite rate
- Formative cells start this at a specific sites called growth centers as soon as the DEJ is established
- Systemic disturbance or local trauma leading to ameloblasts → interruption / arrest in matrix apposition → Enamel Hypoplasia
- Dentinal hypoplasia rare and occurs after severe systemic disturbances

- Age and variability of normal primary tooth eruption. Hatched bar = mandibular;solid bar = maxillary. *(Data from* Lunt RC, Law DB: A review of the chronology of

calcification of deciduous teeth. J Am Dent Assoc 89:872-879, 1974.)

Five years