Factors affecting tooth eruption- local, systemic and congenital factors
Local factors causing delay in tooth eruption

- Physical obstruction
- Injuries to deciduous teeth
Physical obstruction

- Supernumerary teeth
- Tumors - odontogenic and non odontogenic
- Mucosal barriers
- Gingival fibromatosis
- Enamel pearls
Supernumerary teeth are those which are additional or in excess of the normal number.

They can be either single or multiple, unilateral or bilateral and can be present anywhere in the dental arch with predilection for the premaxilla.
Gingival fibromatosis

Gingival fibromatosis is a rare and heterogeneous group of disorders that develop as slowly progressive, local or diffuse enlargements within marginal and attached gingiva or interdental papilla.

In severe cases, the excess tissue may cover the crowns of the teeth, thus causing functional, esthetic, and periodontal problems.
Enamel pearls

Enamel pearls are one of a number of different enamel structures that can be found on the roots of deciduous and permanent teeth.

They have a distinct predilection for the furcation areas of molar, particularly the maxillary third and second molars.
Injuries to deciduous teeth

- Premature loss of primary teeth
- Dilaceration
- Ankylosis
- Delayed root resorption
• Impacted primary teeth

• Arch length deficiency

• Defects in size, shape and color of teeth (regional odontodysplasia, radiation damage)
Dilaceration

- Dilaceration is a developmental disturbance in shape of teeth.

- It refers to an angulation, or a sharp bend or curve, in the root or crown of a formed tooth.
Systemic factors

- Delayed tooth eruption is seen in
  - Cerebral palsy
  - Drugs
  - Anemia
  - Premature/low birth weight babies
  - Genetic influence
  - Idiopathic
  - Nutritional problems - rickets - delayed eruption
Systemic factors

• Delayed tooth eruption is seen in

• Other systemic conditions: renal failure, cobalt/lead or other heavy metal intoxication

• Vitamin D-resistant rickets

• Genetic disorders
Hormonal influence

- Hyperthyroidism, Adrenogenital Syndrome—**Premature eruption of teeth is seen**

- **Delayed Eruption**—Hypothyroidism, Hypopituitarism
Genetic influence

- Delayed eruption: Cleidocranial dysplasia, Osteogenesis imperfecta type I, Apert syndrome, Ekman-Westborg-Julin syndrome, Epidermolysis bullosa, Rutherford syndrome, Cross syndrome, Ramon syndrome

- Failure of eruption: osteopetrosis, Osteopatha strara with cranial sclerosis.
Thank you