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<td>Congress: 12th International Congress of Iranian Academy of Restorative Dentistry 24-26 October 2012 Tabriz-Iran</td>
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<td>Title: Environmental Effects on Tooth Structure Development</td>
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<td>Authors: malekhoseini z, abasi f</td>
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**Abstract:**

**Aim:** Environmental Effects on Tooth Structure Development

**Method and materials:** review articles and book

**Results:** increased opacity, and a sharp boundary with adjacent enamel; normal thickness.

**Enamel Defect:**
- Focal enamel defect
- Generalized enamel defects
  - Focal enamel defects:
    - Secondary to periapical inflammatory disease of the overlying deciduous tooth
  - Enamel defects vary from focal areas of white, yellow or brown to extensive hypoplasia involving the entire crown.
- Most frequently affects permanent bicuspids
- Traumatic injury to deciduous teeth also causes Turner’s teeth (>45% of children sustain injuries to primary teeth; severe trauma early in tooth development can cause disorganization of the bud resembling a complex odontoma. Generalized enamel defects:
  - Exanthematous fevers
- Common pattern occurs as result of systemic influences (such as exanthematous fevers) which occur during the first two years of life; horizontal rows of pits or diminished enamel on anterior teeth and first molars; enamel loss is bilateral
- Similar pattern in cuspids, bicuspids, and second molars when the inciting event occurs at age 4-5

**Syphilitic Hypoplasia**
- Mulberry molars – constricted occlusal tables with disorganized surface anatomy resembling surface of a mulberry
- Anterior teeth called Hutchinson’s incisors, have crowns shaped like straight-edge screwdrivers; incisal taper & notch

**ANTINEOPLASTIC THERAPY**
- Chemotherapeutic agents and radiation used to treat neoplasms can result in significant alterations of the developing teeth
- Most commonly in patients under 12 years of age d are most severe in patients less than 5 years of age
- Dental alterations include hypodontia, microdontia, radicular hypoplasia, and enamel hypoplasia.
- Treatment: Most are cosmetic problems:
  - Acid-etched composite resin restorations
  - Labial veneers
  - Full crowns

**Syphilitic hypoplasia, Tuners teeth, Exanthematous fevers**

**Presentation:** Poster