



PEDIATRIC DENTISTRY DISCIPLINE
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PRACTICAL CLASS 13.1, 13.2

THE THERAPEUTIC FEATURES OF THE FIRST PERMANENT MOLAR



The role of the first permanent molar

- considered “key of the occlusion”
- produces the second physiologic rise of the occlusion
- occupies a strategic position within the dental arch



Vulnerability factors for the predisposition to carious attack of first permanent molar

- formation and mineralization takes place in the tumultuous period of birth and continues postnatally by the age of 3
 - any disequilibrium that occurs in this period may cause mineralization disturbance of the hard dental tissues
- long eruption period (6months-1years) – functional inactivity



Vulnerability factors for the predisposition to carious attack of first permanent molar

- Post-eruptive maturation usually takes place in a “contaminated environment” with high bacterial load due to decay on primary teeth
 - the mineralization of the hard tissues continues after eruption, being stimulated by salivary ion exchanges
 - disturbances in the salivary flow in this period may therefore affect the process of mineralization of the first permanent molar



Morphological features that increase predisposition to carious attack of the first permanent molar

- occlusal accentuated morphology, deep fissures, retentive
- broad contact area with the second primary molar
- vestibular and palatal retention areas (and around the Carabelli cusp)



Therapeutic features of the first permanent molar

- treatment of the simple carious lesions
- vital pulp therapy to stimulate apexogenesis
- apexification therapy
- extraction of teeth with extensive caries (more than 2/3 of the crown), complicated with pulp pathology



Extraction of the first permanent molar

Timing of the extraction must be carefully evaluated, from occlusal, restorative and orthodontic perspective!

Factors to be considered:

- Development stage of the first permanent molar
- Development stage of the second permanent molar
- Occlusion
- Type of malocclusion