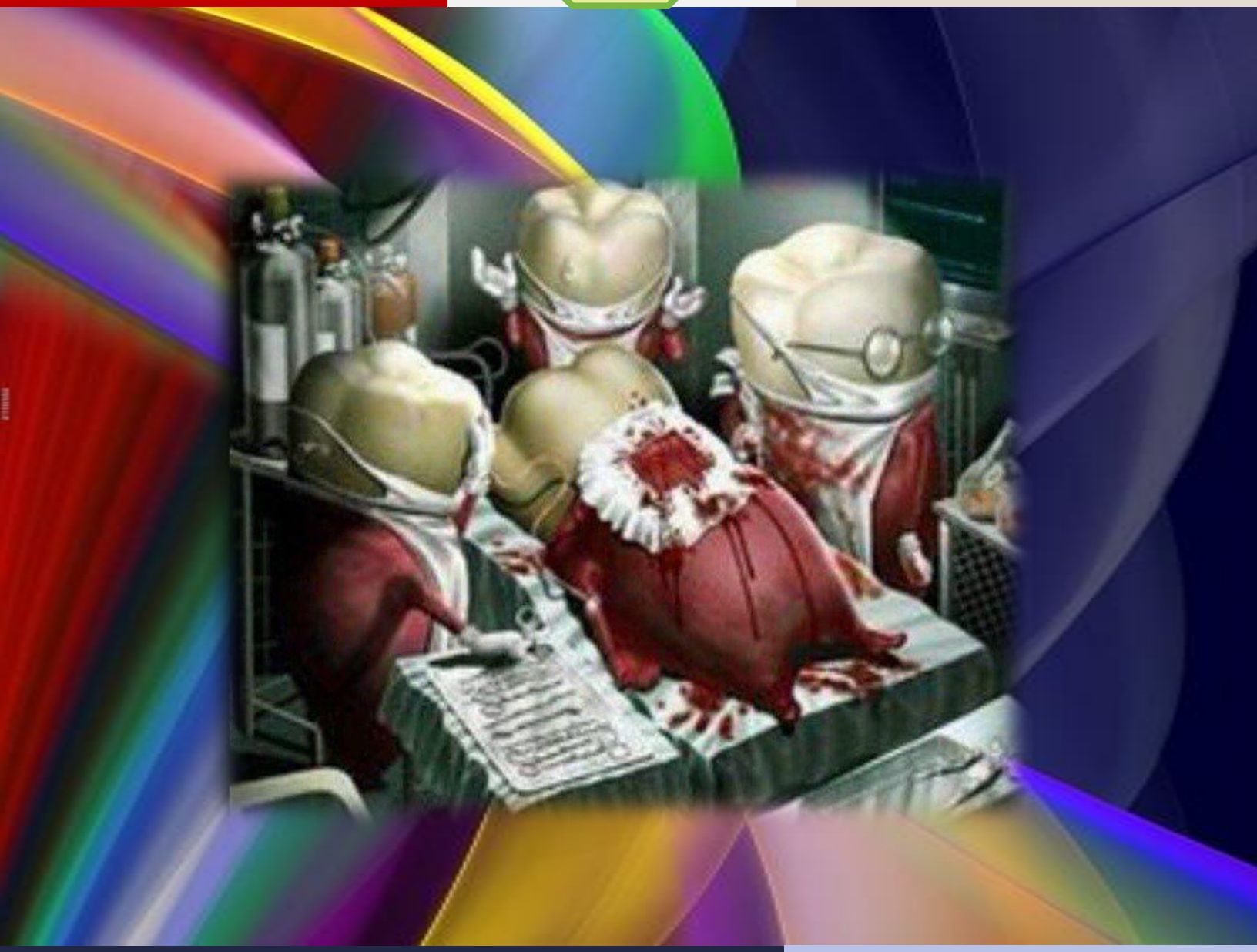
# Pediatric Dentistry

4th year



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# ORAL SURGERY FOR CHILDREN

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# Indications for extraction of primary teeth

*Indications for extractions for children are much the same as those for adult patients; however some conditions predispose the need for removal of deciduous teeth. They are as follows:*

## Acute Pathologic Involvement

*This involvement represents an acute periapical infection of a carious deciduous tooth. The microorganisms may be virulent enough to produce an infection that is diffused and distended, such as cellulitis. The tooth is extracted if it is destroyed beyond rehabilitation.*

## Chronic Pathologic Involvement

*A primary molar usually presents with furcal radiographic changes, and the deciduous anterior tooth may have changes seen in the apical portion. This presents with a parulis or a draining abscess. The risk for the normal development of the permanent tooth bud due to the infective environment warrant the extraction of the diseased deciduous tooth.*

## Over Retained Deciduous Tooth

*The deciduous tooth may be retained for several reasons such as:*

- *If the erupting succedaneous tooth is malposed, the resorptive process on the deciduous tooth may be irregular.*
- *The resorptive process may also be affected by endocrine disturbances or vitamin deficiencies.*
- *Atypical resorption of a deciduous tooth root may cause it to be overretained.*

*Such an over retained deciduous tooth should be extracted to allow normal eruption and alignment of the permanent successor.*

## Ankylosed Deciduous Tooth

*Such tooth shall be extracted when the cessation of vertical alveolar bone growth is observed, as evidenced by deciduous tooth submergence, followed by the placement of a space maintainer.*

### Cariously Involved, Nonrestorable Deciduous Tooth

*When caries has seriously involved the clinical crown of a tooth and is non-restorable, the tooth should be removed.*

### Natal or Neonatal Tooth

*The natal tooth, which has erupted before birth, or the neonatal tooth, usually erupting within one month following birth, must be considered for extraction if:*

- *The tooth is mobile and there is a chance of aspiration*
- *The tooth is a source of mechanical irritation, causing ulceration on the ventral surface of the tongue*
- *There is interference with breastfeeding.*
- *The natal or neonatal tooth may be a supernumerary tooth.*

### Supernumerary Tooth

*The supernumerary tooth, erupted or impacted, is capable of diverting eruption of a permanent tooth from its normal path, impacting it, or delaying its eruption and should be removed.*

*Fractured or Traumatized Tooth*

*Trauma can result in various kinds of trauma to the anterior teeth. Such a deciduous tooth that imposes risk to the permanent teeth should be removed.*

### Impacted Tooth

*The impacted tooth may be a supernumerary tooth, a malformed tooth, or an unerupted, ectopically placed tooth.*

## Contraindications for extraction of primary teeth

- *Presence of acute oral infections such as, necrotizing ulcerative gingivitis or herpetic gingival stomatitis.*

- *Pericornitis (difficult surgical procedure involving bone removal is anticipated).*
- *Extraction of teeth in previously irradiated areas (at least 1 year should be allowed for maximal recovery of circulation to the bone).*
- *Systemic contraindications to the tooth extraction.*

## Indications for extraction of 1st permanent molars

*Treatment planning decision and management of extractions should be ideally made following input from both pediatric dentist and orthodontist general aim:*

1. *For space closure created by loss of the 1st. permanent molar*
2. *To guide the eruption of the 2nd. Permanent molar to its proper position*
3. *To prevent crowding and other malocclusion*

### We should keep in mind the following points before decision:

- *Child's age and social background*
- *Occlusion and developing dentition*
- *Oral hygiene practice and dietary habits*
- *Cooperation with treatment options*
- *Degree of molar-incisal hypomineralization*
- *Restorability of the 1st permanent molar*
- *Expected long term treatment cost*

**The ideal timing for extracting the lower 1st permanent molar is when the furcation of the lower 2nd permanent molar begin to calcify usually 8.5-9.5 years**

## Radiographic survey

*Radiographic surveys of teeth to be extracted are of prime importance. The dentist should observe the size and contour of the primary roots, the amount and type of resorption, the relation of the roots to the succedaneous teeth, and the extent of disease.*

*Simple exodontia in the pediatric patient requires minimal modification from that used in the adult. Concepts that may dictate slight modification include the following:*

***(1)*** *The dentist must be cognizant of the proximity of the deciduous tooth to the succedaneous tooth.*

***(2)*** *The roots on primary teeth with non-resorbed roots will be long, slender, and potentially divergent.*

## Technique for extracting primary teeth

### Upper anterior teeth

*Apply the forceps beaks to the root and then using clockwise and anti-clockwise rotations about the long axis (the action one would employ when using a screwdriver). In older children some additional buccal expansion may be required for the removal of the upper canine.*

### Upper molars

*The initial movement after application of the forceps is palatal, to expand the socket in this direction. The tooth is then subjected to a bucally directed force, which results in delivery.*

### Lower anterior teeth:

*These teeth are extracted in the same manner as their upper counterparts, in that, rotation about the long axis using lower primary anterior or root forceps.*

### Lower molars:

*These teeth are removed by buccolingual expansion of the socket. They can be extracted using either lower primary molar or lower primary root forceps. After application of the forceps a small lingual movement is followed by a continuous buccal force, which delivers the tooth.*

# After Extraction

## Post-extraction care

- *The socket should be inspected and any loose fragment of bone is removed or necessary socket irrigation is performed.*
- *The alveolar processes should be pressed together in order to reduce any distortion of the supporting tissues; suturing should always be done after multiple extractions.*
- *After extraction, a gauze pack is placed over the socket and patient is directed to bite on the pack for ½ hour, exerting firm, even pressure. This will prevent bleeding while the patient returns home and it allows a blood clot to form.*

## Some Post-extraction instructions are:

- *The patient should be warned that sucking the wound, investigating the socket with tongue and rinsing during the first day disturbs the blood clot and may cause dry socket.*
- *Patient should be directed to remain quiet for several hours, preferably sitting in a chair or if lying down, keeping the head elevated.*
- *Only liquids and soft solids should be advice on the first day. They may be warm or cold but not extremely hot.*
- *The teeth should be brushed as usual and on the day after surgery rinsing of the mouth should begin. A warm saline solution is best for this purpose.*
- *Some degree of postoperative pain accompanies many exodontia procedures and begins after the effects of the anesthetic have left. So, it is better to take some analgesic before the effect of anesthetic wears off.*
- *Prevention of swelling after extensive or difficult operation. The degree of swelling is generally in direct proportion to the degree of surgical trauma. The application of cold to the operated site is beneficial in reducing the amount of postoperative swelling. Pressure dressings are also beneficial in limiting the postoperative swelling.*

## Additional advisory in case of children

- *Parent is instructed to keep a check on the status of cotton so that the child does not swallow it inadvertently.*
- *Patient is instructed to keep the cotton for 30 minutes to 1 hour and avoid spitting out.*
- *It is best to give cold food stuff like ice-cream to children to aid in clot formation.*
- *Explain the effect of anesthesia will keep the area numb for a specific time so as to avoid lip or cheek biting, especially in children.*
- *It is best to allow the child to be seated in the dental chair for at least 10 minutes before discharging him so as to avoid any shock symptoms.*
- *Advise parents to keep children under close supervision that particular day and avoid sports of heavy nature.*
- *Parents should use alternate methods to distract the child so as to avoid his attention towards the wound.*