Teeth: eruption pattern, trauma, caries; prevention of problems

Tooth Eruption

Rule of 4's: 4 by a year of age, 8 by 16 months; 12 by 20 months, 16 by 24 months and 20 by 28 months. Having delayed eruption of either deciduous or permanent teeth is not that unusual and usually needs no evaluation. Total of 20 deciduous teeth; 32 permanent teeth.

Trauma to Teeth:

- Avulsed deciduous teeth: never try and replace a deciduous tooth.
- Avulsed permanent teeth: the quicker the tooth is replaced, the more likely it will stay in. The tooth can be rinsed, but should not be scrubbed; have to exert a lot of pressure to get tooth back in proper place. Transport medium: milk, saline; water if nothing else available
- Chipped permanent tooth: can be repaired, but also has a tendency to chip off
- Bruised tooth: no treatment necessary unless suspect infection. Gumboil will occur over the root of the tooth; its presence means that an abscess is present, and the tooth either needs to be removed or a root canal be performed.

Steps to take to promote prevention of dental problems in children:

1. Regular check-ups: recommended 6 months after initial tooth erupted: i.e., about 1 year of age. Most pediatric dentists actually start to do routine evaluations at about 2-3 years of age, but prefer to see the children younger because they want to have a more positive relationship with them at the start.

2. Fluoride in water: each neighborhood can vary in the amount of fluoride that exists. Supplementation in needed in some, not in other areas. Dose: 0.25 mg 6 mos. - 3 years; 0.5 mg 3-6 years; 1.0 mg > 6 years.)

3. Helmets for bicycles: again, a common way for children to hurt themselves.

4. Mouth guards for sports: particularly if there are traumatic sports anticipated.

5. Daily hygiene and care: we were shown many awful slides of just poor hygiene

6. Minimize carbohydrate intake: if give juice in bottle give as few times/day as possible
**Abnormal Tooth Eruption:** Can be normal to have no teeth up to 15 months of age

- missed teeth: seen in deciduous as well as permanent teeth as well.
- crowded teeth (we want the deciduous teeth to be widely spaced in the mouth--children need that space for permanent teeth). Many different braces and splints available.

**Miscellaneous Things to Note:**

1. Gum Boil: always means there is an abscessed tooth that needs extraction or root canal

2. Caries: nursing are often in front teeth (Caries caused by oral strep: Streptococcus mutans)

3. Eruption blisters - when teeth are actually erupting, can have an ecchymotic blister

4. Geographic Tongue: not painful, but looks like it should be

5. When to suture a tongue: only if through and through in the middle of the tongue

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**Teething**

**Introduction:** There is no subject about which mothers and grandmothers feel more strongly. They know that symptoms are caused by teething, and there is no amount of rational discussion that will persuade them otherwise. Since teething is a process that goes on from 6 months to 5 years, it is difficult to know what people mean by the term.

**Actual proven symptoms of teething:** pain of gums when teeth are erupting with concomitant increased fussiness. Drooling can increase as well.

**Symptoms that are ascribed to teething:**

1. *Salivation.* Salivary glands start functioning about 4 months of age and drooling starts then. There is no relationship between the beginning of drooling and eruption of teeth.

2. *Fever.* A number of controlled studies over the last 30 years have shown no increased fever in children whose teeth are erupting. (Most recent: December 2000: Pediatrics).

3. *Diarrhea.* Many parents are convinced that diarrhea is caused by teething. As in fever, gastroenteritis occurs most often after six months of age, the time of tooth eruption. Of course, this is also the time of changing foods. There is no cause-effect relationship. Despite this, a 1995 study found that 35% of pediatricians in Florida thought there was a cause-effect relationship.
4. *Facial rashes.* Drooling itself can cause atopic rashes, and since drooling does increase at the time of tooth eruption, this rash could be an indirect effect of teething.

5. *Susceptibility to infection, convulsion.* No evidence for this being true.

**Recommended treatment for teething:**

1. Acetominophen or Ibuprofen at the time of tooth eruption to treat irritability
2. Pacifier or cold “teething ring” to soothe sore gums. -- Remember cold panniculitis

**Other treatments frequently used by parents (not recommended by most doctors):**

<table>
<thead>
<tr>
<th>Name of “Teething Treatment”</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>Chamomilla</td>
<td>Patients using homeopathy will use this a lot; many other homeopathy meds available</td>
</tr>
<tr>
<td>Viscous Lidocaine</td>
<td>Seizures have been reported</td>
</tr>
<tr>
<td>Teething Powders (contained mercury)</td>
<td>Pink disease</td>
</tr>
<tr>
<td>Paregoric</td>
<td>Sedation, Intestinal paralysis, death</td>
</tr>
<tr>
<td>Benzocaine containing gel</td>
<td>Methemoglobinemia reported</td>
</tr>
<tr>
<td>- Orajel/Numbs-it</td>
<td></td>
</tr>
<tr>
<td>Whiskey on pacifier or just po</td>
<td>This goes back many generations; often used</td>
</tr>
<tr>
<td>Honey on pacifier</td>
<td>Botulism</td>
</tr>
<tr>
<td>Sugar on pacifier</td>
<td>Can be soothing but cariogenic</td>
</tr>
<tr>
<td>Phenobarbital containing medications</td>
<td>Sedation</td>
</tr>
</tbody>
</table>

**Conclusion:** Try and minimize dangerous treatments for teething. Otherwise, it is better to put your efforts elsewhere. Combinations of mothers/grandmothers/nurses/etc are hard to beat.