Eruption of Teeth

By:

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Revision..!!
One Quadrant at the Dental Arches

- Incisors
- Canine
- Premolars
- Molars
**Guidance of Dental Sequence**

- **Teeth arranged on two arches (Jaws):** Maxilla and mandible
- **Each arch consists two quadrants (right & left)**
- **Each quadrant is identical (the same as) to the rest of the other three quadrants in the number and the sequence of teeth**
Dental Arches and Quadrants

The midline

1  2

3  4
**Dental Arches and Quadrants**

- 8 teeth (Permanent)
- 5 teeth (Primary)

The midline

1 | 2
---|---
4 | 3
Dental Arches and Quadrants

5 teeth (Primary)

Second molar, first molar, canine, lateral Incisor, Central Incisor
Primary Teeth (Dental arch)
Dental Arches and Quadrants

8 teeth (Permanent)

3rd molar, 2nd molar, 1st molar, 2nd premolar, 1st premolar, canine, lateral, Central Incisor
DENTAL ARCH OF ADULT

maxilla (16 teeth)

premolars (4)

incisors (4)

canines (2)

molars (6)

typical adult lower molar pattern

mandible (16 teeth)

molars

canine

incisors

premolars
Eruption

• Eruption: emergence of the tooth through the gingiva: movements a tooth makes to attain a relationship with the teeth in the same and opposing arch

• Generally, mandibular teeth erupt before maxillary teeth.
Eighth Week
<table>
<thead>
<tr>
<th>Teeth</th>
<th>Maxillary</th>
<th>Mandibular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central Incisor</td>
<td>7 ½ months</td>
<td>6 months</td>
</tr>
<tr>
<td>Lateral Incisor</td>
<td>9 months</td>
<td>7 months</td>
</tr>
<tr>
<td>Canine</td>
<td>19 months</td>
<td>16 months</td>
</tr>
<tr>
<td>First Molar</td>
<td>19 months</td>
<td>12 months</td>
</tr>
<tr>
<td>Second Molar</td>
<td>24 months</td>
<td>20 months</td>
</tr>
</tbody>
</table>
Primary Teeth (Dental arch)
# The Sequential Pattern for Permanent Tooth Development

<table>
<thead>
<tr>
<th>Maxillary</th>
<th>Mandibular</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>First molar</strong></td>
<td><strong>First molar</strong></td>
</tr>
<tr>
<td>Central incisor</td>
<td>Central incisor</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>Lateral incisor</td>
</tr>
<tr>
<td><strong>First premolar</strong></td>
<td>Canine</td>
</tr>
<tr>
<td><strong>Second premolar</strong></td>
<td><strong>First premolar</strong></td>
</tr>
<tr>
<td><strong>Canine</strong></td>
<td><strong>Second premolar</strong></td>
</tr>
<tr>
<td><strong>Second molar</strong></td>
<td><strong>Second molar</strong></td>
</tr>
<tr>
<td><strong>Third molar</strong></td>
<td><strong>Third molar</strong></td>
</tr>
</tbody>
</table>
Eruption of Permanent Teeth
The Guide for the Emergence into the Oral Cavity

<table>
<thead>
<tr>
<th>Tooth Type</th>
<th>Maxillary</th>
<th>Mandibular</th>
</tr>
</thead>
<tbody>
<tr>
<td>Central incisor</td>
<td>7 – 8 year</td>
<td>6 – 7 year</td>
</tr>
<tr>
<td>Lateral incisor</td>
<td>8 – 9 year</td>
<td>7 – 8 year</td>
</tr>
<tr>
<td>Canine</td>
<td>11 – 12 year</td>
<td>9 – 10 year</td>
</tr>
<tr>
<td>First premolar</td>
<td>10 – 11 year</td>
<td>10 – 12 year</td>
</tr>
<tr>
<td>Second premolar</td>
<td>10 – 12 year</td>
<td>11 – 12 year</td>
</tr>
<tr>
<td>First molar</td>
<td>6 – 7 year</td>
<td>6 – 7 year</td>
</tr>
<tr>
<td>Second molar</td>
<td>12 – 13 year</td>
<td>11 – 13 year</td>
</tr>
<tr>
<td>Third Molar</td>
<td>17 – 21 year</td>
<td>17 – 21 year</td>
</tr>
</tbody>
</table>
Wisdom Tooth
Bony impactions

in which your tooth is a good hide and seek player and thus is completely hidden in your jawbone. Your oral surgeon won't be pleased with it, which means it wins.

e.g. bony horizontal impaction

LOLZ! No one will be able to find me here!
Periodontal Tissues (Periodontium)
Periodontium

The tissue that surround, support the teeth, and provide attachment for teeth in the jaws.
Anatomically, the periodontal structures are:

1. Gingiva
2. Cementum
3. Periodontal Ligaments
4. Alveolar Bone
Periodontal Ligaments

Alveolar Bone

Cementum
Gingiva

- One of the soft tissues that line the oral cavity and covered the coronal process of alveolar bone

- Collectively all the soft tissues of the mouth are known as the oral mucosa
Types of Gingiva

- Marginal gingiva
- Attached gingiva
- Interdental (Papilla) gingiva
Types of Gingiva

- Attached G.
- Free G.
- Interdental gingiva
Periodontal Ligament

The composite of tissues that surround the root of the tooth and serve as the attachment of the tooth to the alveolar bone.
Alveolar Bone

- Made up of bony process that project from the basal portions of the mandible and maxilla
Cementum

Calcified tissue that covers the root of the tooth and provides a means of attachment for the periodontal ligament fibers to the tooth.
Oral Mucosa

- Divided into three different types:
  - Masticatory mucosa; firmly attached to the underlying bone
  - Lining mucosa: loosely attached to their underlying structures
  - Specialized mucosa: covers the dorsal surface of the tongue and is adapted to accommodate for the sensation of taste
Oral Mucosa
Thank you