

## Objectives

#### After studying this chapter, you will be able to:

- Name the parts of the body treated in dentistry
- Describe the function of each body part treated in dentistry
- Define combining forms used in building words that relate to dental practice
- Identify the meaning of related abbreviations
- Name the common diagnostic, pathological, and treatment terms related to dental practice
- Recognize common pharmacological agents used in dental practice

#### **Dentistry**



•The profession that studies, diagnoses, and treats the teeth, gums and any other part of the oral cavity and facial structure that interacts with the teeth and gums.

#### **Includes:**

- prevention
- diagnosis
- treatment
- surgery
  - -reconstructive
  - -cosmetic

#### **The Dental Team**

**Dentist** 

**Dental hygienists** 

**Dental technicians or assistants** 

#### **Oral Cavity**

#### Part of the digestive system

# The teeth and gums help with:

- chewing food
- •speech
- general appearance

#### Gums

- also called gingivae
- dense fibrous tissue that forms a protective covering around the sockets of the teeth

### Teeth



 Primary teeth (deciduous teeth) erupt at about 6 months old



Secondary teeth(permanent teeth)begin to erupt at age



 Deciduous teeth equals 20 and are usually in place by age 4 years



 By the mid-twenties, usually all 32 permanent teeth have developed

NOTE: Permanent teeth are not replaced by the body if they are lost.

#### **Parts of a Tooth**

#### Crown

-part projecting above the jaw line -consists of an outer layer (enamel) and inner layer (dentin)

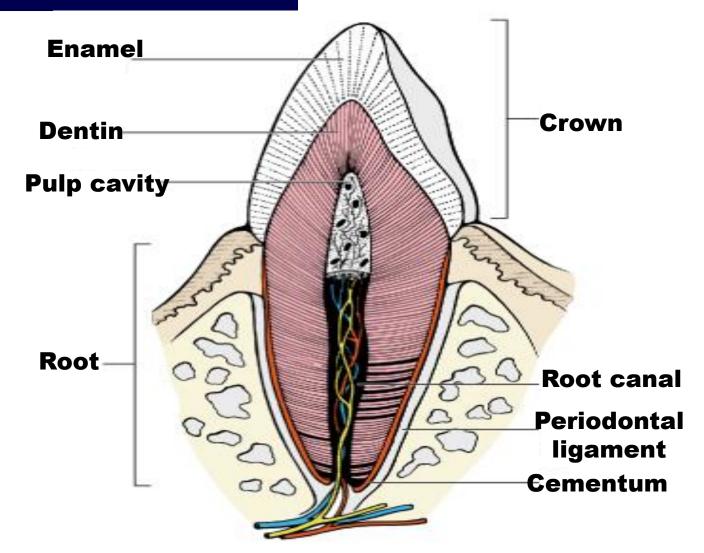
#### Root

- -part below the jaw line
  -held in place by cementum
  -root canals carry the blood
- -root canals carry the blood vessels and nerves from the bottom of the jaw into the pulp cavity

#### **Pulp Cavity**

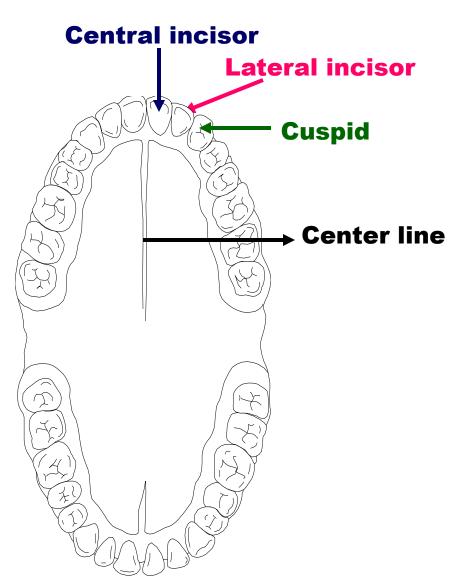
- -central portion of the tooth
- -contains connective tissue, blood vessels, and nerves

#### **Structure of a Tooth**



#### **Types of Primary Teeth**

- Incisors
- -cutting teeth located on either side of the center line of the jaw
- -central incisors are on either side of the center line
- -lateral incisors are located next to the cuspids
- Cuspids
- -also known as canines or eyeteeth



# Types of Primary Teeth (cont'd)

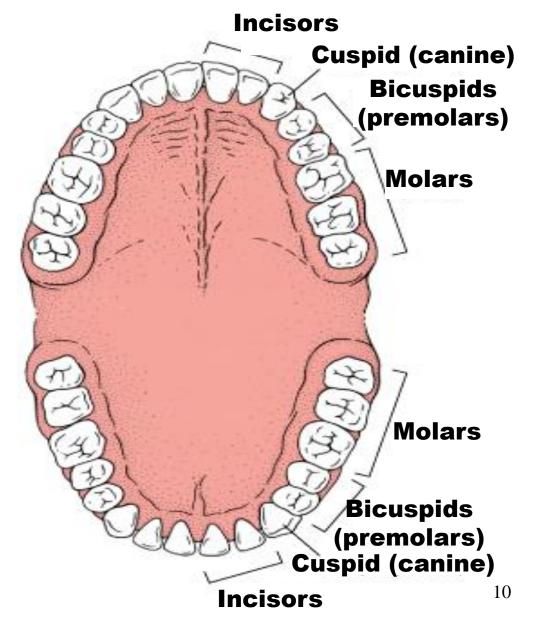
- Molars
- -the first molar sits
  next to the cuspid
  -the second molar is
  located at the back of
  the child's jaw

## **Types of Secondary Teeth**

- Permanent teeth include:
  - -incisors
  - -cuspids
  - -molars
  - -bicuspids
- Bicuspids
  - -located next to each cuspid
- -present only as permanent teeth

Note: There are three molars present with permanent teeth. The third molar is often called the wisdom tooth.

**Permanent Teeth** 



**Outer Surfaces of Teeth** 

#### **Labial Surface**

-parts of the teeth that meet when the mouth is closed

#### **Buccal Surface**

-sides of teeth nearest the cheek

#### **Lingual Surface**

-inside surface nearest the tongue

#### **Mesial Surface**

-short side of the tooth nearest the median of the jaw line Labial surface

Mesial surface

Distal surface

Occlusal surface

Buccal surface

#### **Distal Surface**

-short side of tooth farthest from the median of the jaw line

Medial line
Lingual surface

# Combining Forms and Abbreviations

**Combining Form** 

**Meaning** 

 $dent(o), denti \longrightarrow tooth$   $gingiv(o) \longrightarrow gum$   $odont(o) \longrightarrow tooth$ 

## Combining Forms and Abbreviations

#### **Abbreviation**

Meaning

DDS —	doctor of dental surgery
def —	decayed, extracted, or filled (primary teeth)
DEF-	decayed, extracted, or filled (permanent teeth)
dmf	decayed, missing, or filled (primary teeth)
DMF———	<ul><li>decayed, missing, or filled (permanent teeth)</li></ul>
RDH——	= registered dental hygienist
TMJ ———	= temporomandibular joint

#### **Prevention of Tooth Decay**

Most dental work begins with preventing tooth decay by insisting on:

- cleaning of teeth
- cleaning of gums
- fluoride treatment for some

Regular cleaning of teeth and gums removes plaque which is microorganisms that grow on the crowns and along the roots of teeth causing decay of teeth and damage to the gums.



#### **Tooth Decay**

- can be detected early using dental xrays
- causes toothaches (odontalgia)
- may require a filling if decay has not reached the central part of the tooth

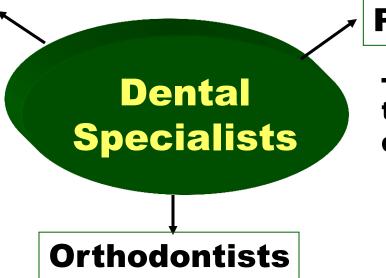


- dental restoration
- drilling is done to remove the decayed area
- amalgam is placed into the space

If decay is deeper within the tooth, an abscess may result.

#### **Endodontists**

-specialize in root canal work



#### **Periodontists**

-specialize in treating gum disease

-specialize in the correction and prevention of irregularities in the placement and appearance of teeth

#### **Treatments**

- Dentures
  - -replacement teeth
  - -partials replace
- one or more tooth
  - -partials attached to
- other teeth are called
- bridges
- -full dentures replace all teeth



#### Braces

-malocclusions can be corrected with braces or surgery

#### **Other Treatments**

•Temporomandibular joint

(TMJ) dysfunction

Cosmetic Surgery

Bleaching of teeth



# Pharmacological Terms

Local anesthetics are used during certain treatments to numb the area.

#### **Commonly Used Anesthetics**

- Novocaine
  - -is injected near the site to be treated
- Nitrous oxide
  - -gas inhaled by the patient
  - -also called laughing gas

Dentists may prescribe antibiotics and pain killers after a procedure but they have limitations to the amount and strength of medication they can prescribe.

# **Apply Your Knowledge**

Brian, age 4 is requesting a snack. His mother can prepare food for a child having:

- A. 20 deciduous teeth
- **B.** 15 deciduous teeth
- C. 30 secondary teeth

**Answer: A. 20 deciduous teeth** 

# **Apply Your Knowledge**

Karen has fallen and "chipped" the outer coating of her tooth. Which of the following structures has she damaged?

- A. dentin
- B. enamel
- C. pulp

**Answer: B. enamel** 

## **Apply Your Knowledge**

**Identify the labeled teeth.** 

