

Diseases of Periodontium

Dept. of Oral Pathology

LEARNING OBJECTIVES

At the end of lecture student should be able to --

1. Differentiate between healthy gums & diseased gums
2. Describe general outline of Periodontal diseases

Did you know?

- ☞ Periodontal (gum) disease is a common dental problem that may result in tooth loss.
- ☞ Gingivitis and Periodontitis are most common types

Healthy gums

- 🦷 Maintained by daily plaque removal from all surfaces of the tooth

Characteristics

1. Pinkish color
2. Firm, resilient tissues
3. Shape around teeth
4. No redness, swelling, or inflammation
5. No bleeding
6. No discomfort



Healthy Gums con't

- ☛ Teeth are supported by gum tissue (gingiva), connective fibers called periodontal ligament that anchor the tooth root into its pocket, and bone.
- ☛ The gums reach up snugly onto the enamel of the tooth, protecting the roots and bone structure.

Healthy

Coral pink

Stippled

Knife-edge margin

Diseased

Light red → red to magenta

Loss of stippling

Margin rolled, blunted, receded or hyperplastic

Bleeding/exudate

Malodor

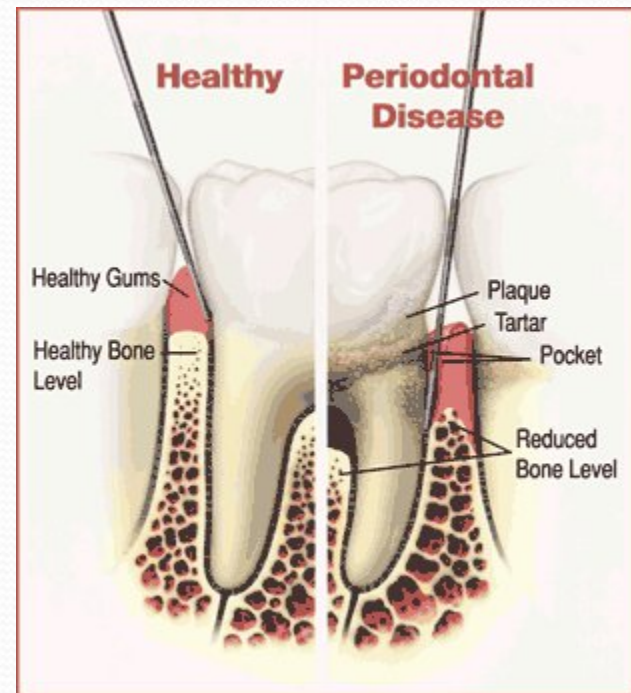
Swelling/edema/fibrosis

What is Periodontal Diseases?

- 🦷 Periodontal literally means “around the tooth”
- 🦷 Chronic bacterial infection that affects the gums and bone supporting the teeth
- 🦷 Affect one tooth or many
- 🦷 Begins when bacteria in plaque causes the gums to become inflamed

What is Periodontal Disease con't

- ❏ Bacteria produce byproducts (called toxins or enzymes), along with mucus, constantly form a sticky, colorless “plaque” on teeth.
- ❏ Can damage the attachment of gums, periodontal ligament, and bone to teeth.



What is Periodontal Disease con't

- 💡 Brushing and flossing can help get rid of plaque but when it's not removed can harden and form bacteria-harboring "tartar."
- 💡 Tartar forms around teeth
- 💡 Tissue that attaches the gums to the teeth can be destroyed by the irritants of plaque.

What is Periodontal Disease con't

- ☛ Gums pull away from the teeth and small pockets form between the teeth and gums
- ☛ Pockets become filled with more plaque
- ☛ Pockets deepen, becoming impossible to clean plaque out
- ☛ Bone structure supporting teeth can be destroyed

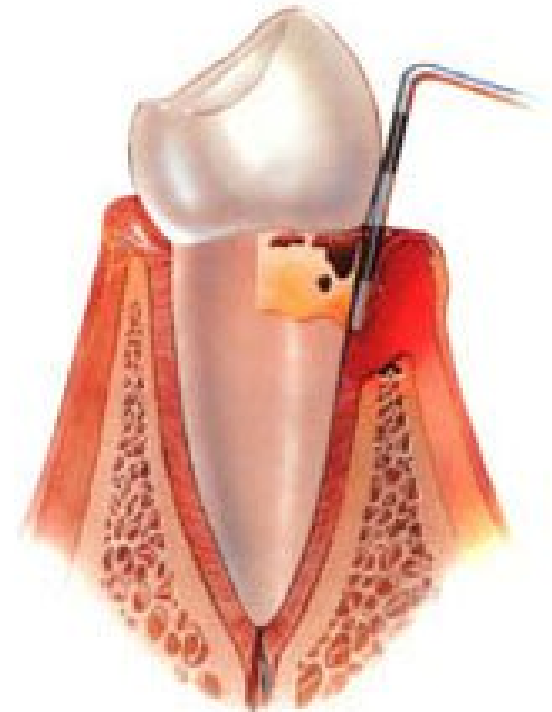
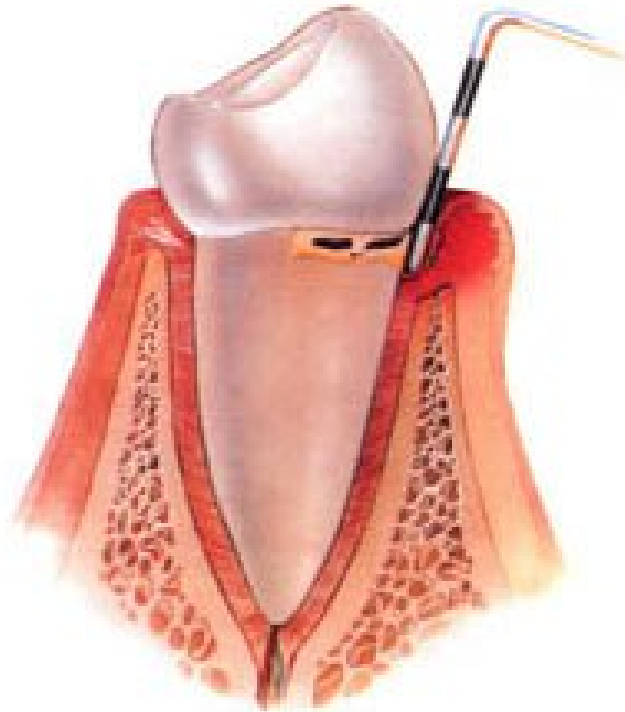
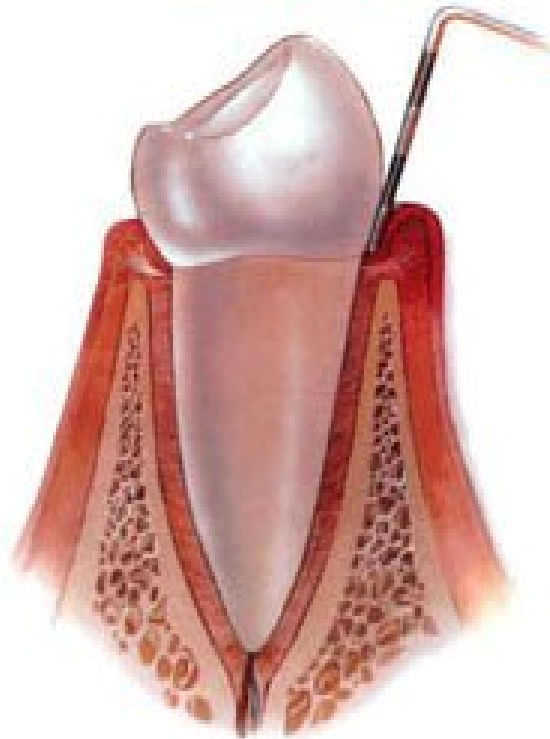
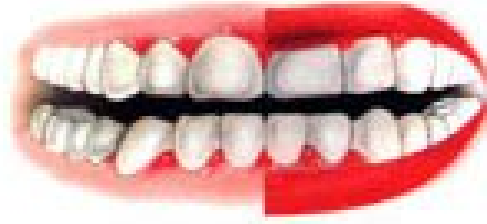
Types of Periodontal Diseases

Gingivitis

1. Milder and reversible only affects gums
2. Toxins irritate gums, red, tender, swollen, bleed
3. Eliminated by daily brushing, flossing, and regular cleanings



Types of Periodontal Diseases con't



Periodontitis

1. Occurs when the inflammation of the gums progresses into the deeper underlying structures and bone.
2. In the most common form, plaque is found below gum line.
3. Gums irritated, bright red, and bleed easily
4. Ligaments holding tooth in its socket break down and gums- pull away, resulting in a periodontal pocket between the tooth and gum.



- 🦷 Periodontal pocket deepens and fills with more bacteria
- 🦷 Supportive ligaments and bone begin to show damage
- 🦷 Moderate periodontal disease



Advanced stage

- ☞ Gums severely recede
- ☞ Pockets deepen and may fill with pus
- ☞ Swelling around root
- ☞ Sensitivity to cold/hot or brushing
- ☞ Bone loss increases
—tooth need to be removed

Risk Factors

- ☞ Physical and chemical irritants
- ☞ Abnormal oral conditions or habits
- ☞ Unbalanced diet
- ☞ Pregnancy and hormonal changes
- ☞ Certain medications
- ☞ Certain diseases
- ☞ Stress

Warning Signs

- ☛ Gums bleed easily
- ☛ Red, swollen, or tender gums
- ☛ Gums pulled away from teeth
- ☛ Infection including purulence between the teeth and gums, when pressed
- ☛ Permanent teeth -loose
- ☛ Changes in bite

Warning signs con't

- 🦷 Bad breath or a chronic bad taste in your mouth
- 🦷 Teeth that are over sensitive to hot or cold
- 🦷 Itchy sensation

How to prevent disease

- 🧠 Daily good oral hygiene can help reduce your risk of developing periodontal disease.
- 🧠 Brushing teeth at least twice a day (with fluoride toothpaste)
- 🧠 Careful cleaning between your teeth once a day with dental floss or another interdental cleaner to remove plaque

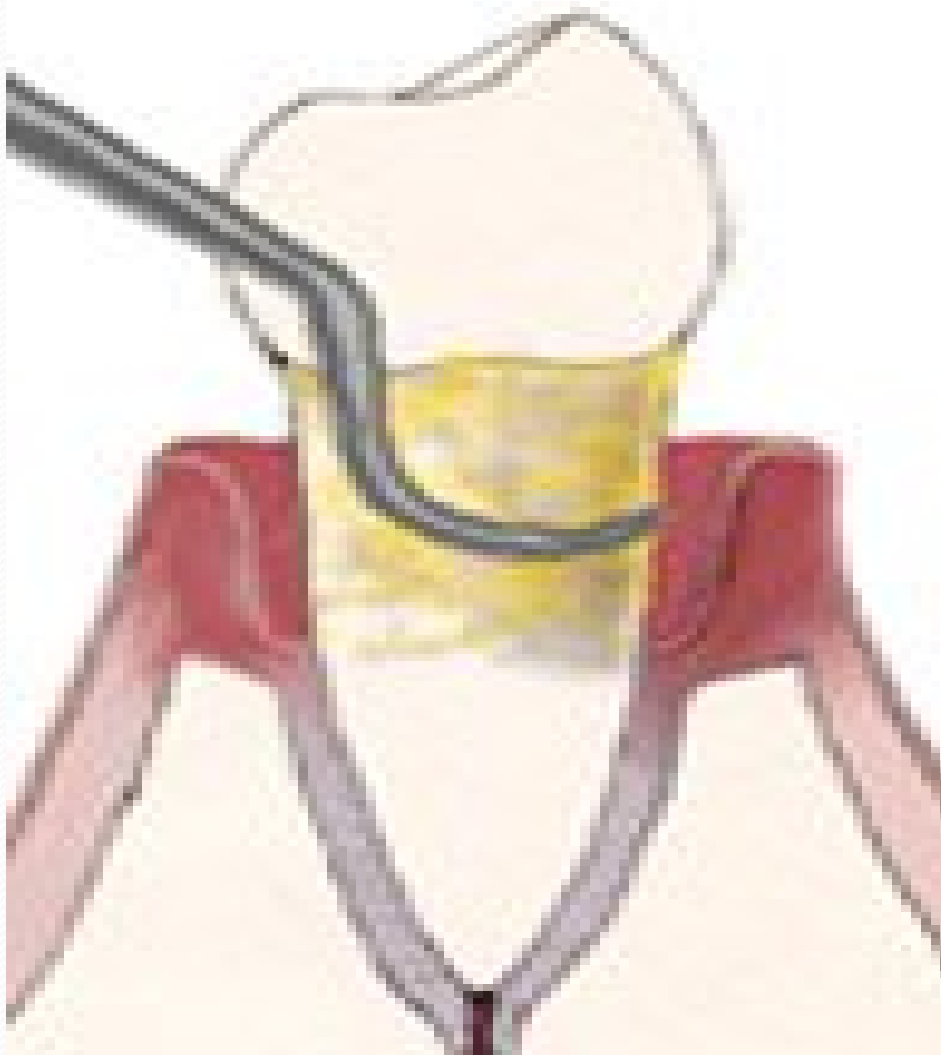
How to prevent disease con't

- 🗣️ Use antimicrobial mouth rinse or other oral hygiene aids
- 🗣️ Eat a balanced diet
- 🗣️ Visit the dentist routinely for a check-up and professional cleaning
- 🗣️ Don't use tobacco products

Treatment

- The main goal of treatment is to control the infection. The number and types of treatment will vary, depending on the extend of the gum disease. Keeping a good daily care at home and modifying certain behaviors will also improve treatment outcome.

Types of Treatment



- 🦷 Deep cleaning
 1. Scaling-scraping off the tartar above and below gum line

Types of Treatment

- 🦷 Deep cleaning
- 1. Root planing- gets rid of rough spots on the tooth root where the germs gather, and helps remove bacteria




Treatment con't

- 💡 Medications- may be used with treatment that includes scaling and root planing, but cannot always take the place of surgery.
- 💡 Surgical treatments

Surgical Treatments

- Curettage removes the soft tissue lining the periodontal pocket. This helps the gum tissue to heal
- **Gingivectomy** is a surgical removal of the periodontal pocket to allow easier access for cleaning

Surgical Treatments con't

 **Flap surgery** allows to gain access to the root of the tooth for removal of calculus, tartar, plaque, and diseased tissue.

1. Lifting back the gums and removing tartar
2. Gums are sutured back in place

Surgical Treatments con't

- 🦷 Bone and tissue grafts
- 🦷 Grafting is a way to replace or encourage new growth of bone or gum tissue destroyed
- 🦷 Tissue generation



Summary

1. Differences between healthy gums & diseased gums
2. What are Periodontal diseases? General outline

BIBLIOGRAPHY

- Text book of oral pathology Shafer's, 5 & 6th edition
- Color Atlas of Oral Diseases Cawson, R. 2nd edition
- Oral and Maxillofacial Pathology Neville, Brad W.
2nd
- Lucas's Pathology Of Tumor's of the Oral Tissues
Cawson, R. A., Bennie, W. H 5th edition

Thank you