

# Bacterial Plaque



*By*

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# Bacterial Plaque

- Dense, noncalcified, highly organized bacterial mass
- Firmly adherent to the teeth or other hard materials within the mouth



# Bacterial Plaque



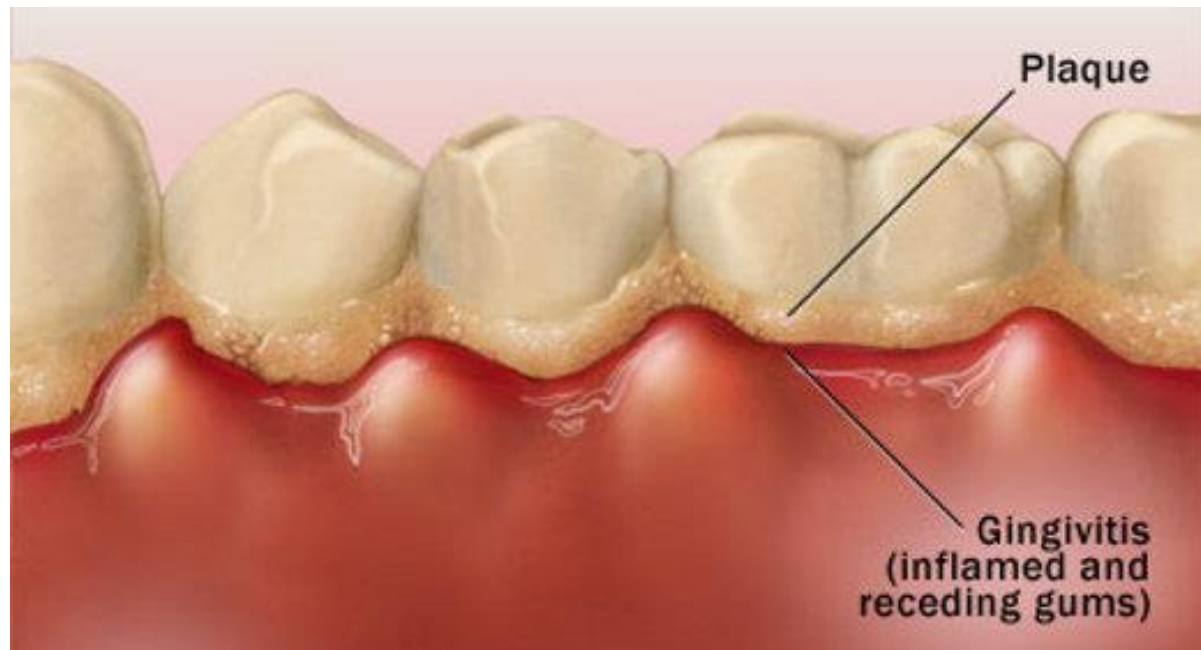
# Bacterial Plaque

- It can be formed on oral appliances and restorations
- Cannot be washed off by salivary or water



# Categories of Bacterial Plaque

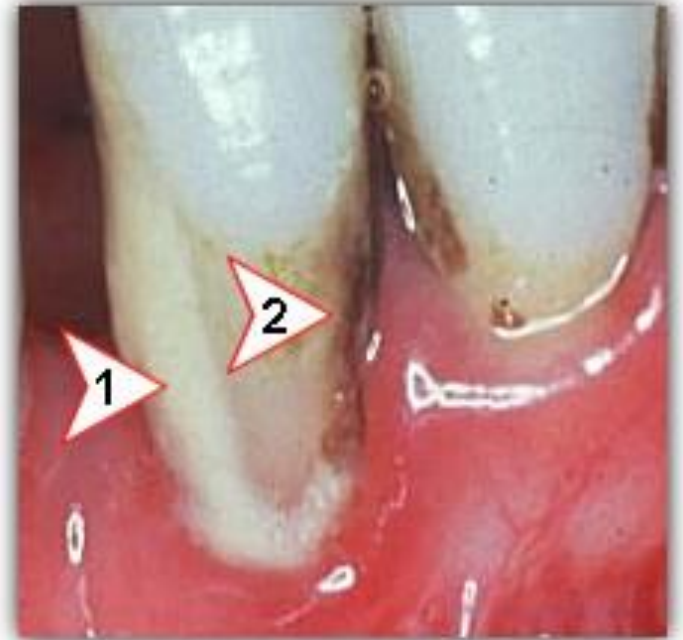
- 1. Supragingival





# Categories of Bacterial Plaque

- 2. Subgingival



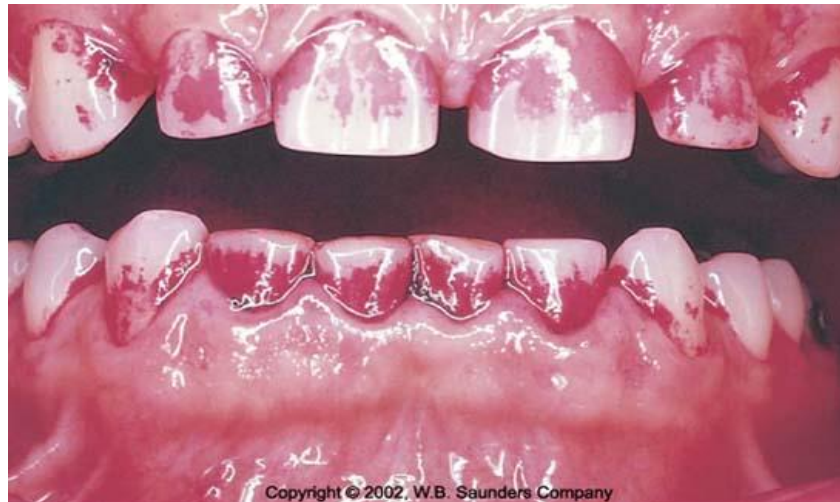
**PERIODONTAL PROPE**



- Not clinically visible



- Using the disclosing agent as a means of plaque detection
- It becomes visible by its mass and discoloration





BEFORE PLAQUE DISCLOSING TABLETS



AFTER PLAQUE DISCLOSING TABLETS

- Plaque can be removed by mechanical cleaning (Daily Removal) at the following areas:

- ✓ Supragingivally and subgingivally
- ✓ Around the gingival third of the tooth
- ✓ Interproximal areas
- ✓ Tongue



- Plaque may be deposited on a cleaned tooth surface within 6 hours



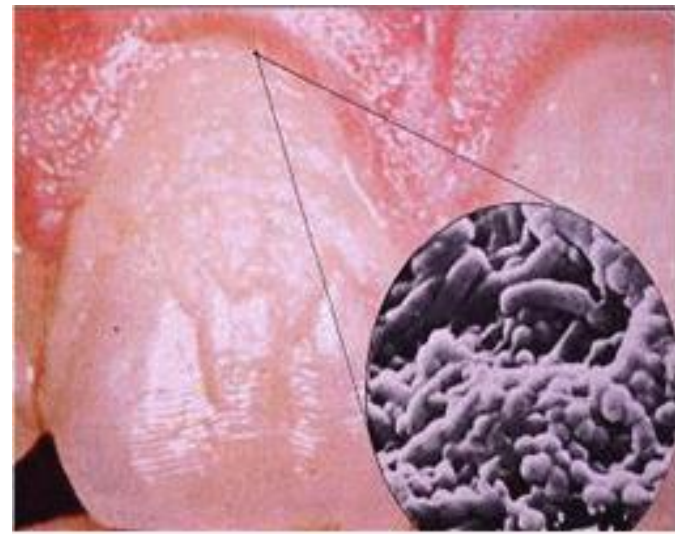
# Stages in the Formation of Plaque

1. Formation of a Pellicle: selective adsorption of protein components from the saliva
2. Bacteria attached to the pellicle
3. Bacterial multiplication
4. Plaque growth and maturation
5. Matrix formation



# Structures and Composition of Bacterial Plaque

- Water (80 %)
- Solids (20%: of which 95 % bacterial)
- Different organisms may be found in plaque
- Extracellular microbial products
- Saliva and immunoglobulins



## Factors Influencing Plaque Accumulation

- Crowded Teeth
- Rough Surfaces
- Difficult to Clean
- Out of Occlusion





# Significance of Bacterial Plaque

- Play a major role in initiating and progression of both:
  - ✓ Dental caries
  - ✓ Periodontal diseases
- Plaque is significant in forming a dental calculus



# Dental Calculus



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- The longer plaque remains on the tooth surface, the more types of microorganisms will be present until the plaque reaches maturity in a few days
- Bacterial plaque is the principle etiological agent of inflammatory periodontal diseases
- The accumulation of bacterial plaque on the teeth and tongue will contribute to an unpleasant personal esthetic appearance as well as to halitosis

**HALIT**  **SIS**



