

**LEMBAR PENGESAHAN
BAHAN AJAR NON ISBN**

1	Judul	:	Oral Plaque Biofilms
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Ketua Program Studi



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ORAL PLAQUE BIOFILM

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10:00 WIB

**Program Studi Kedokteran Gigi
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DEFINITION

- **Dental plaque is a structured resilient, grayish-yellow structure that tenaciously adheres to the intra oral hard surfaces including removable and fixed restorations**
- **Dental plaque is also the term commonly used for the biofilm formed on teeth surfaces.**
- **Biofilms are defined as matrix embedded microbial populations, that develops on teeth immediately following cleaning of the teeth and directly influences the pattern of initial microbial colonisation.**
- **Plaque mainly comprises of bacteria, which are suspended in a matrix consisting of salivary glycoproteins and polysaccharides. This matrix gives it the ability to attach firmly to the tooth surfaces making it difficult to remove by rinsing or with the help of sprays. It is invisible to the naked eye and visualisation is possible only with the help of disclosing solutions.**
- **The dental plaque was considered to have similar structure as a biofilm.**

BACTERIA FOUND IN DENTAL PLAQUE

Table 1 Bacterial genera found in dental plaque

Gram-positive	Gram-negative
<p>Cocci:</p> <p><i>Streptococcus</i></p> <p><i>Peptostreptococcus</i></p> <p>Rods:</p> <p><i>Actinomyces</i></p> <p><i>Bifidobacterium</i></p> <p><i>Corynebacterium</i></p> <p><i>Eubacterium</i></p> <p><i>Lactobacillus</i></p> <p><i>Propionibacterium</i></p> <p><i>Rothia</i></p>	<p>Cocci:</p> <p><i>Neisseria</i></p> <p><i>Veillonella</i></p> <p>Rods:</p> <p><i>'Bacteroides'</i>^a</p> <p><i>Campylobacter</i></p> <p><i>Eikenella</i></p> <p><i>Fusobacterium</i></p> <p><i>Haemophilus</i></p> <p><i>Leptotrichia</i></p> <p><i>Prevotella</i></p> <p><i>Porphyromonas</i></p> <p><i>Selenomonas</i></p> <p><i>Treponema</i></p>

PREDOMINANT BACTERIA FOUND ON THE TOOTH SURFACE

Table 2 The predominant bacteria found at three distinct anatomical sites on the tooth surface

Bacterium	Percentage viable count (range)		
	Fissures	Approximal surfaces	Gingival crevice
<i>Streptococcus</i>	8–86	<1–70	2–73
<i>Actinomyces</i>	0–46	4–81	10–63
Other obligately anaerobic			
Gram-positive rods	0–21	0–6	0–37
<i>Neisseria</i>	0 ^a	0–44	0–2
<i>Veillonella</i>	0–44	0–59	0–5
Obligately anaerobic Gram-negative rods	0 ^a	0–66	8–20

^aDetected occasionally