

PLAQUE INDEX (PLI)

P.S

- Plaque index was described by Silness J and Loe H in 1964.

UNIQUE FEATURE:-

- It ignores assessment of coronal extent of plaque on the exposed tooth surface and assesses only the thickness of plaque on gingival area of tooth surface.
- It is a widely used method and has good validity and reliability.
- It can be used as full mouth index or simplified index.

DRAWBACK : Subjectivity in estimating plaque.

To overcome this, a single examiner must be trained and used with each group of patients.

SIX INDICES OF TEETH:-

- | | |
|----|---|
| 16 | Maxillary right first molar |
| 12 | Maxillary right lateral incisor |
| 24 | Maxillary left first bicuspid |
| 36 | Mandibular left first molar |
| 32 | Mandibular left lateral incisor |
| 44 | Mandibular right 1 st bicuspid |

If any teeth is missing, there is no substitute & full mouth should be examined.

SURFACES EXAMINED:

Gingival surfaces of teeth:-

Disto-facial, Facial, Meso-facial, Lingual.

- Third molars are not examined or scored in upper or lower arch.
- When both GI & Plaque index is to be examined, the examination of PI should always precede that of GI.
- Under optimal conditions & chair side assistance, the examination & scoring for PI should take 5 min per person.

In 1967, Lee H modified the criteria for score 1 to exclude the application of disclosing solutions. He also gave detailed explanation regarding the sequence of scoring.

1) Maxillary arch:

- Upper arch: Starts with upper right second molar & continues over midline to upper left second molar.
On right side: sequence:- distal, buccal/labial, mesial.
Left side: mesial, buccal/labial, distal.
- When the lingual surfaces are examined beginning with maxillary left second molar.

2) Mandibular arch:

Begin with 37 through the midline & to 47.
Left side: distal, buccal/labial to mesial.
Right side: mesial to buccal/labial to distal.
Lingual surfaces are scored beginning with 47.

INSTRUMENTS USED: Mouth mirror, Dental Explorer, disclosing of teeth & gingiva.

PROCEDURE

- Tooth is air dried.
- When there is no visible plaque, an explorer is used to test the surface of tooth.
- Explorer side is runned across cervical 3rd of tooth surface & near entrance to gingival sulcus.

SCORING CRITERIA

- 0 :- No plaque
- 1 :- Film of plaque adhering to the free gingival margin & adjacent tooth surface. Plaque may be seen only by running a probe across tooth surface.
- 2 :- Moderate accumulation of plaque within gingival pocket, on gingival margin &/or adjacent tooth surface. Seen by naked eye.
- 3 :- Abundant plaque within gingival pocket &/or gingival margin and adjacent tooth surface.

CALCULATION : PLI score :

- For an individual area: Each area is assigned a score from 0 to 3.
- For a tooth: The scores from the four areas of the tooth are added & then divided by four.
- For an individual person: The indices for each teeth are added & then divided by the total number of teeth examined. The scores range from 0 to 3.

RECORDING FORMAT

Maxillary

D M

B

P

17 16 15 14 13 12 11 21 22 23 24 25 26 27

Mandibular

B

L

47 46 45 44 43 42 41 31 32 33 34 35 36 37

- For a group: The indices for each member of a group or population is added up & then divided by the total number of individuals in the group or population.

INTERPRETATION :

Excellent = '0'

Good = 0.1 - 0.9

Fair = 1.0 - 1.9

Poor = 2.0 - 3.0

USES OF PLI:

1. A reliable technique for evaluating both mechanical anti-plaque procedures and chemical agents.
2. The PLI may be used in large-scale epidemiological studies as well as for smaller groups or within the dentition of an individual.