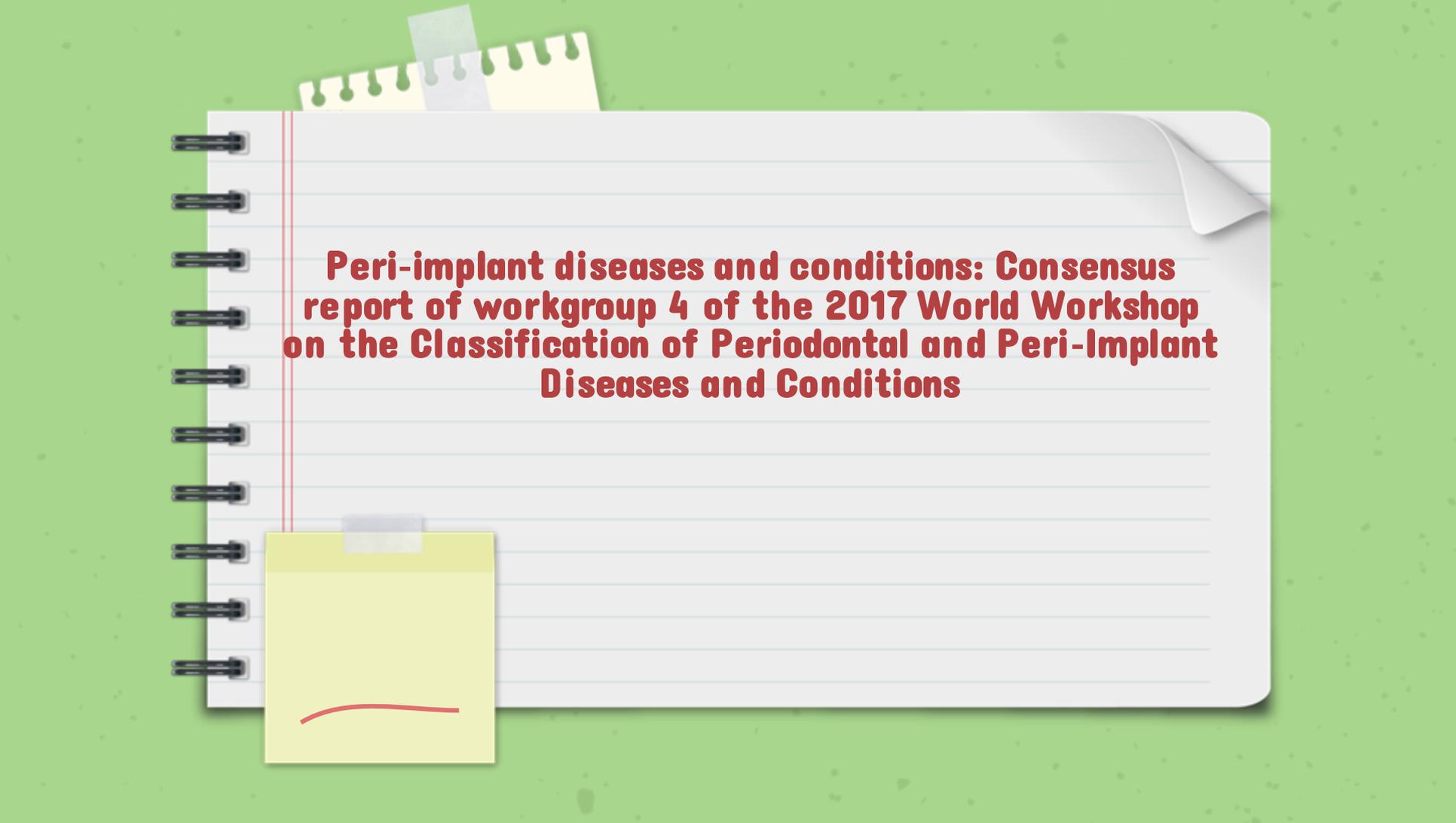


به نام خدا

A graphic of a spiral-bound notebook with a white page and a red cover, set against a green background. The spiral binding is at the top. The text is centered on the page.

Review of literature

Vadoud Ghasemi Barghi
Assistant Professor, Ardabil University of
Medical Sciences, Ardabil, Iran

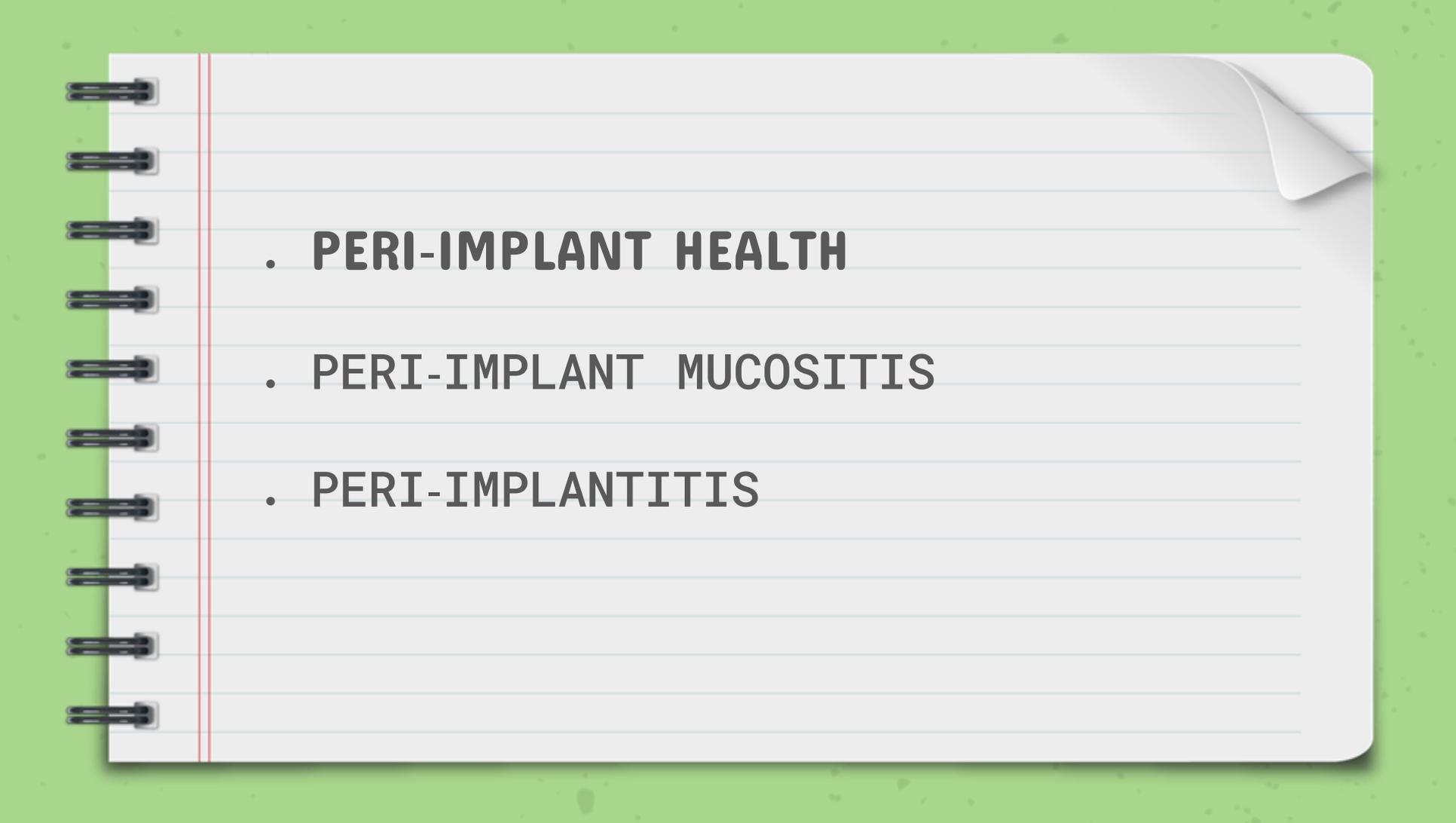
A spiral-bound notebook with a white cover and lined pages is set against a green background. The notebook is open to a page with horizontal blue lines. A red vertical line is drawn on the left side of the page. A yellow sticky note is attached to the top edge, and another yellow sticky note is attached to the bottom edge. The top right corner of the page is curled up. The text is centered on the page in a bold, dark red font.

**Peri-implant diseases and conditions: Consensus
report of workgroup 4 of the 2017 World Workshop
on the Classification of Periodontal and Peri-Implant
Diseases and Conditions**

**“Tord Berglundh | Gary Armitage | Mauricio G. Araujo |
Gustavo Avila-Ortiz | Juan Blanco | Paulo M. Camargo |
Stephen Chen | David Cochran | Jan Derks | Elena Figuero |
Christoph H.F. Hämmerle | Lisa J.A. Heitz-Mayfield | Guy
Huynh- Ba | Vincent Iacono | Ki-Tae Koo | France Lambert |
Laurie McCauley | Marc Quirynen | Stefan Renvert | Giovanni
E. Salvi | Frank Schwarz | Dennis Tarnow | Cristiano Tomasi |
Hom-Lay Wang | Nicola Zitzmann**

DOI: 10.1111/jcpe.12957

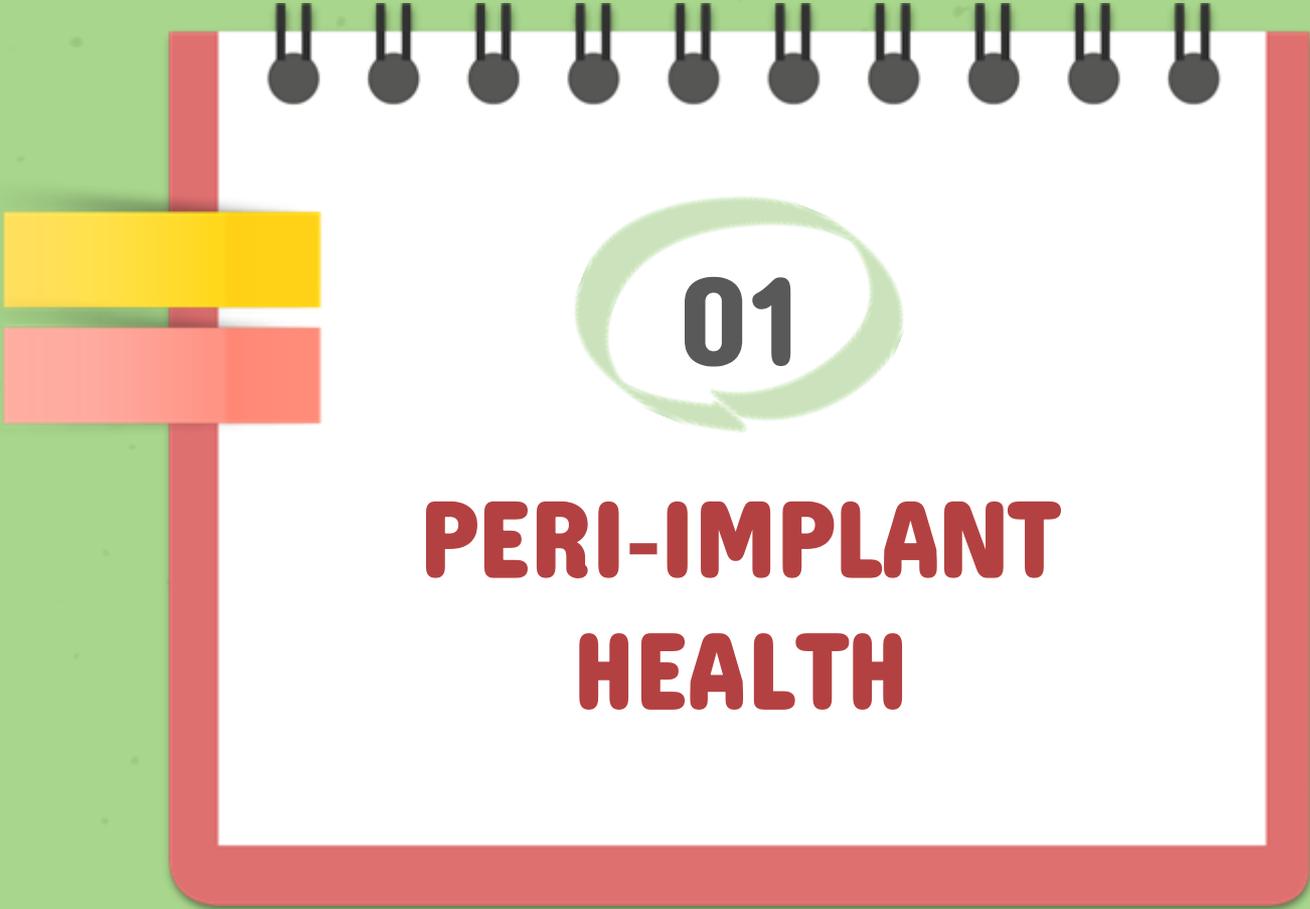




. **PERI-IMPLANT HEALTH**

. **PERI-IMPLANT MUCOSITIS**

. **PERI-IMPLANTITIS**



01

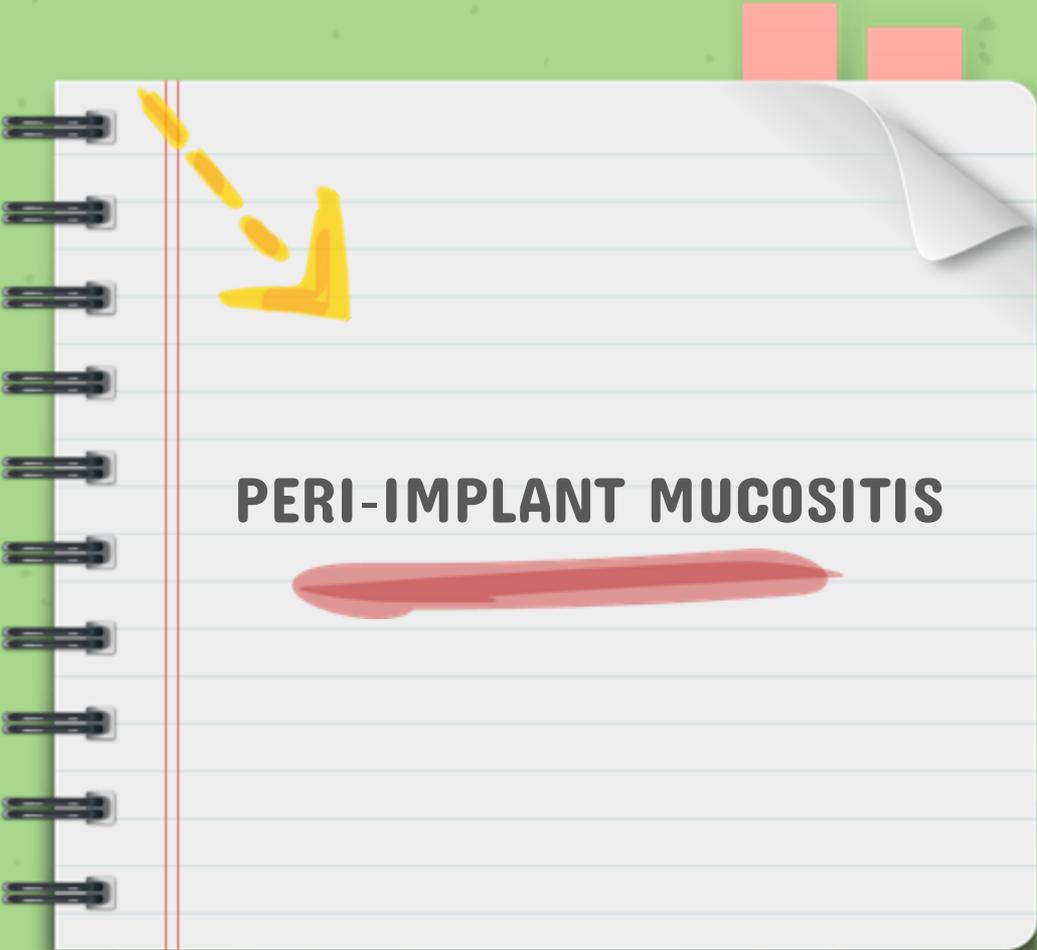
PERI-IMPLANT HEALTH

1. **What are the clinical characteristics of a healthy peri-implant site? Absence of BOP.....**
2. **What are the main clinical differences between healthy peri-implant and periodontal tissues? PD and papillae**
3. **What peri-implant probing depths are compatible with peri-implant health?** more importance are the clinical signs of inflammation
4. **What clinical methods and instruments should be used to detect the presence or absence of inflammation at an implant site?** visual inspection, probing with a periodontal probe, and digital palpation

5- What are the histological characteristics of a healthy peri-implant site?

6- Why is it important to probe peri-implant tissues during a complete oral examination?

Canj periimplant health exist around implants with reduced bone support? Yes, peri-implant tissue health can exist around implants with re-duced bone support



PERI-IMPLANT MUCOSITIS



What are the clinical characteristics of peri-implant mucositis?



Does peri-implant mucositis exist in the absence of clinical signs of inflammation?



Can peri-implant mucositis resolve? 3 weeks..



How does probing depth relate to the detection of peri-implant mucositis?



Does non-plaque-induced peri-implant mucositis exist?



What are the environmental and patient-specific risk indicators for peri-implant mucositis?

- The major etiological factor is **plaque** accumulation. Host response to the bacterial challenge may vary between patients. **Smoking**, **diabetes mellitus**, and **radiation** therapy may modify the condition

PERI-IMPLANTITIS

What is
peri-implant
itis?



What are the clinical characteristics of peri-implantitis?



What is known about the onset and progression pattern of peri-implantitis?



What are the major risk indicators for peri-implantitis?



Does progressive crestal bone loss around implants occur in the absence of soft tissue inflammation?



HARD- AND SOFT-TISSUE DEFICIENCIES

1. What factors are associated with recession of the peri-implant mucosa?

The principal factors for recession of the peri-implant mucosa are malpositioning of implants, lack of buccal bone, thin soft tissue, lack of keratinized tissue, status of attachment of the adjacent teeth and surgical trauma

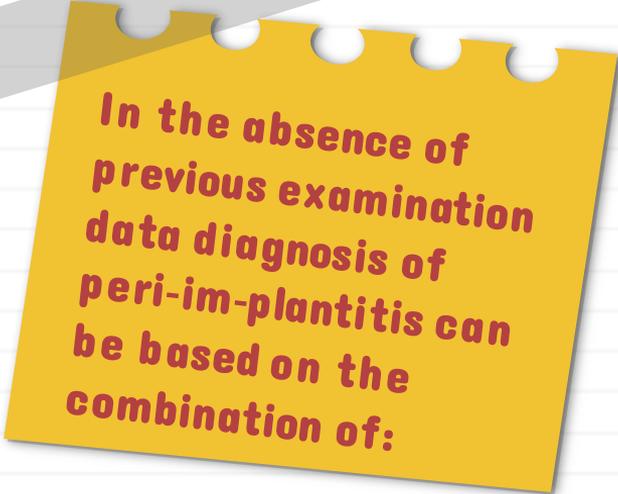
2.Does the presence/absence of keratinized mucosa play a role in the long-term maintenance of peri-implant health?

The evidence is equivocal regarding the effect of keratinized mucosa on the long-term health of the peri-implant tissue. It appears, however, that keratinized mucosa may have advantages regarding patient comfort and ease of plaque removal.

-----strongly recommended--

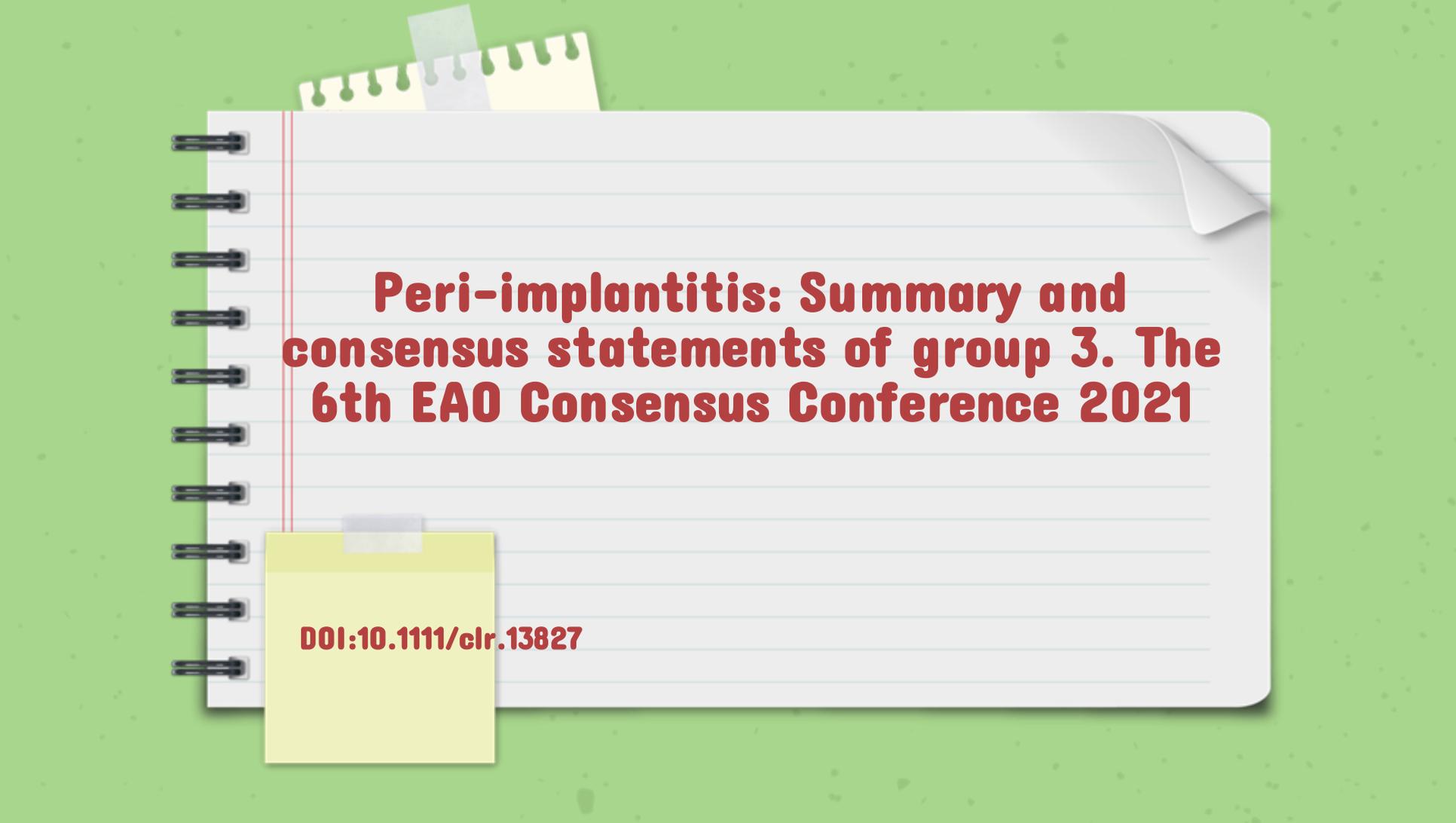
How do we define a case of peri-implantitis in epidemiological or disease surveillance studies?

1. Presence of bleeding and/or suppuration on gentle probing.
2. Increased probing depth compared to previous examinations.
3. Presence of bone loss beyond crestal bone level changes resulting from initial bone remodeling.



In the absence of previous examination data diagnosis of peri-im-plantitis can be based on the combination of:

- 
1. Presence of bleeding and/or suppuration on gentle probing.
 2. Probing depths of ≥ 6 mm.
 3. Bone levels ≥ 3 mm apical of the most coronal portion of the intraosseous part of the implant.

A spiral-bound notebook with a white cover and lined pages is set against a green background. The notebook is open to a page with a red vertical margin line on the left. A yellow sticky note is attached to the top edge, and another yellow sticky note is attached to the bottom edge. The text is written in a bold, dark red font.

**Peri-implantitis: Summary and
consensus statements of group 3. The
6th EAO Consensus Conference 2021**

DOI:10.1111/clr.13827

- **Frank Schwarz | Gil Alcoforado | Adrian Guerrero |
Daniel Jönsson | Björn Klinge | Niklaus Lang | Nikos
Mattheos | Brenda Mertens | João Pitta | Ausra
Ramanauskaite | Shariel Sayardoust | Ignacio Sanz-
Martin | Andreas Stavropoulos | Lisa Heitz-Mayfield**



Introduction

The group discussions and consensus statements were based on two systematic reviews (Stavropoulos et al., 2021, Sanz Martin et al., 2021) and one critical review (Mattheos et al., 2021a). Two reviews focused on the influence of the implant material and implant surface characteristics (Stavropoulos et al., 2021) and the various components of the implant-abutment-prosthesis junction (Mattheos, Schitteck, et al., 2021a) on the occurrence and/or progression of peri-implant diseases. The third review addressed changes in peri-implant soft-tissue levels following various types of surgical treatment of peri-implantitis (Sanz Martin et al., 2021).

- **IMPACT OF DESIGN ELEMENTS OF THE IMPLANT SUPRACRESTAL COMPLEX ON THE RISK OF PERI-IMPLANT MUCOSITIS AND PERI-IMPLANTITIS. A CRITICAL REVIEW**

Main findings

Two cross-sectional studies (Katafuchi et al., 2018; Yi et al., 2020) indicated that an emergence angle (EA) of more than 30 combined with a convex emergence profile (EP) of the abutment/prosthesis is associated with an increased risk for peri-implantitis at bone level (BL) implants.

- There is evidence that reduced accessibility to oral hygiene increases the risk for peri-implantitis (Serino & Ström, 2009)
- There is evidence that prosthesis modification can improve the effectiveness of peri-implant mucositis treatment, in cases where the prosthesis design was limiting accessibility to oral hygiene (Tapia et al., 2019).
- No influence of the abutment and prosthesis material was found in relation to the risk of peri-implant inflammation
- Presence or absence of an intermediary abutment on external hexagon implants does not affect the risk for peri-implantitis (Göthberg et al., 2018).

Consensus statements

1. which outcome measures were evaluated in the clinical studies investigated?

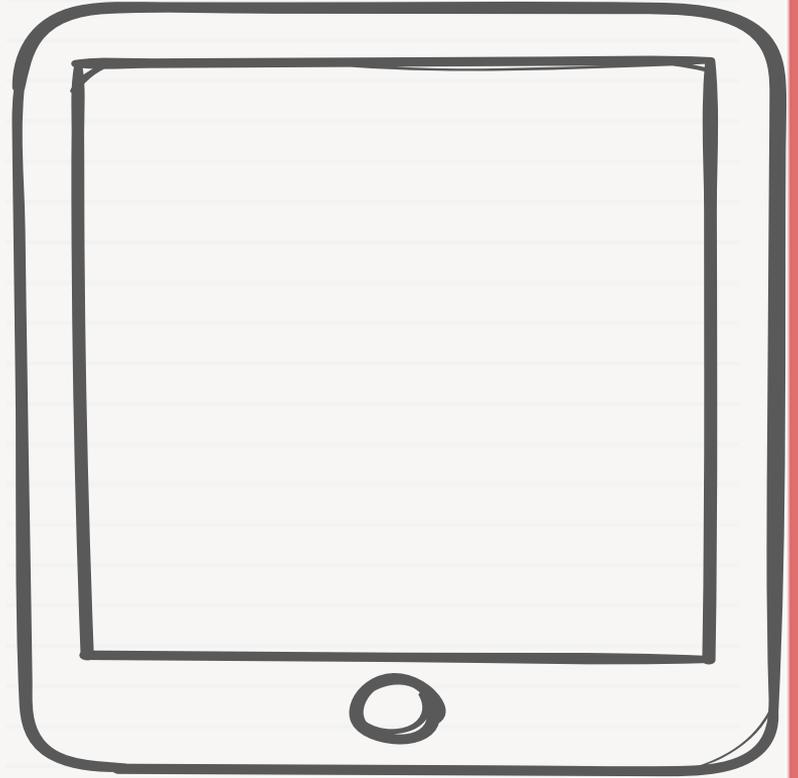
2. Is there evidence that specific prosthetic features (e.g., emergence profile, emergence angle, retention type, accessibility for clean-ing, type, and positioning of the implant-abutment-prosthesis junction) increase the risk for peri-implant diseases?

3. Is there evidence that specific materials and/or surface characteristics of transmucosal implant parts increase the risk for peri-implant diseases?

Clinical recommendations

- On the basis of two cross-sectional studies [(Katafuchi et al., 2018), 83 patients/168 implants]; (Yi et al., 2020), 169 patients/349 implants), overcontouring (emergence angle and convexity) of the abutment-prosthesis complex should be avoided.

1. WHAT IS THE INFLUENCE OF IMPLANT SURFACE CHARACTERISTICS AND/OR IMPLANT MATERIAL ON THE INCIDENCE AND PROGRESSION OF PERIIMPLANTITIS? A SYSTEMATIC LITERATURE REVIEW.



- progression of peri-implantitis
- implant surface characteristics significantly impact periimplantitis progression and the area of the inflammatory inf
- incidence of peri-implantitis
- No significant difference

CHANGES IN PERI-IMPLANT SOFT-TISSUE LEVELS FOLLOWING SURGICAL TREATMENT OF PERI-IMPLANTITIS. A SYSTEMATIC REVIEW AND META-ANALYSIS. [Sanz Martin et al., 2021]

- **The analysis was based on a total of 19 investigations (7 RCTs, 5 CCTs, and 7 prospective case series) including a final number of 593 implants after a mean follow-up period of 22 months.**

Main findings



The main findings of the present review were that peri-implant mucosal recession after surgical treatment of peri-implantitis varied depending on the procedure employed. Access flaps and resective approaches had greater mucosal recession when compared to reconstructive procedures.

- Access flaps and resective approaches had greater mucosal recession
- The use of different bone substitute materials or barrier membranes did not appear to influence peri-implant mucosal recession in reconstructive procedures
- The selection of the surgical protocol should primarily consider the extent and morphology (i.e., supracrestal and/or intrabony defects) of the defect,

Thanks
for your attention!

