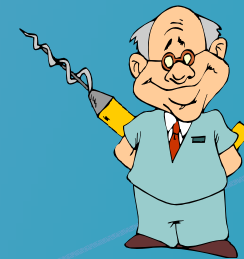




Årsmøte,
Norsk Periodontistforening
Geilo, Feb 1, 2014

The periodontal patient from a prosthodontist's view



(prōs'thē-dōn't ist): def.
*Expensive dentist that enjoys
to grind with big drills and
fabricate large fake white teeth*



Asbjørn Jokstad



Who is a periodontal patient?



1. Signs of active periodontal disease

- Pocket depth? Bleeding on probing?
..on sight? Sensitivity/specificity?



2. Obvious risk factors for periodontal disease

- Oral hygiene?
- P.I. / G.I.
- Bone level changes?
- Microbiology?

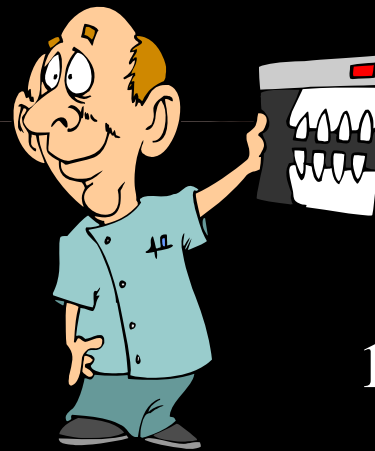


The average clinician may

- ▶ recognize active peri-odontal/-implant disease and intervene correctly or refer
- ▶ recognize active peri-odontal/-implant disease, but doesn't intervene correctly or refer – under-treatment
- ▶ recognize and treat peri-odontal/-implant disease, in spite of being non-existent – over-treatment
- ▶ not recognize active peri-odontal/-implant disease prior to prosthodontic therapy



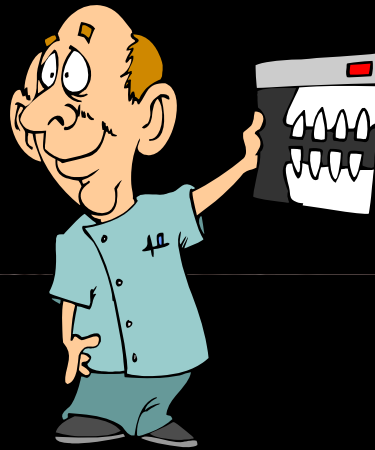
How well does
the average
clinician
recognize active
peri-odontal/-
implant disease?



Is there an indication of
something big here?

1. Use of right diagnostic tools?
2. The skills to use the right diagnostic tools?

How well does
the average
clinician
recognize active
peri-odontal/-
implant disease?

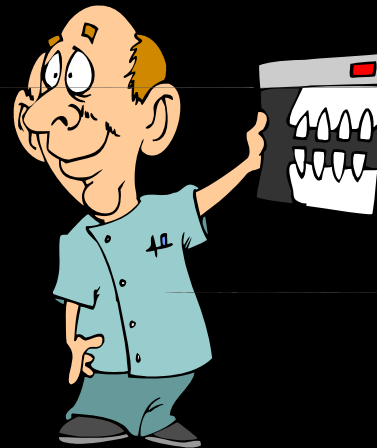
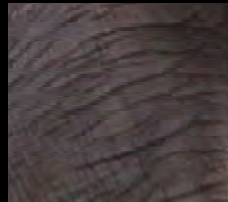


Is there an indication of
something big here?

1. Use of right diagnostic tools?
2. The skills to use the right diagnostic tools?
3. Perceptive abilities?

How well does
the average
clinician
recognize active
peri-odontal/-
implant disease?

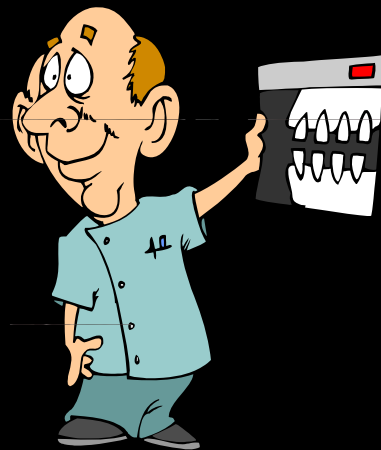
1. Use of right diagnostic tools?
2. The skills to use the right diagnostic tools?
3. Perceptive abilities?
4. Correct interpretation of signs and symptoms?



Is there an indication of
something big here?

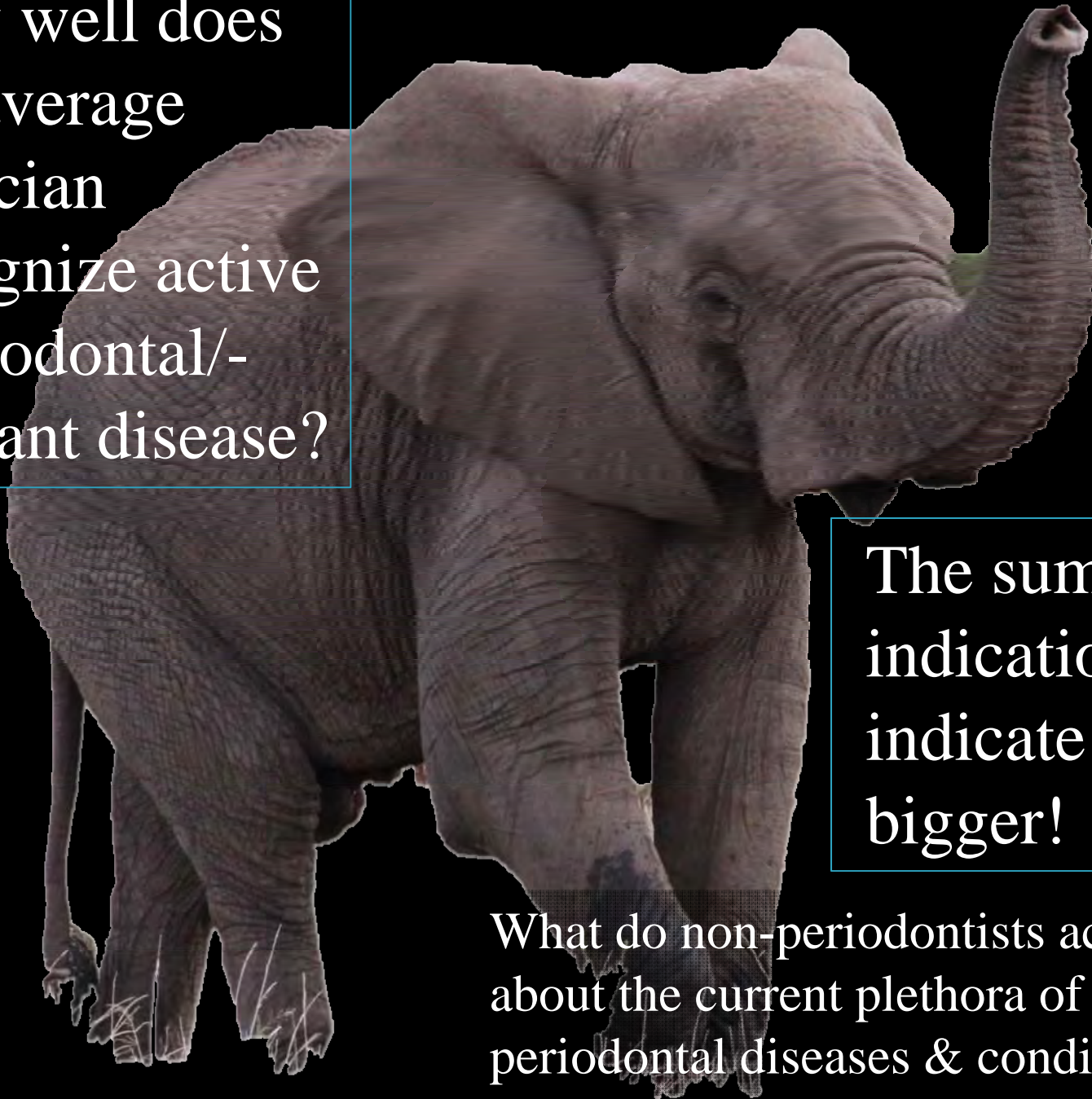
How well does the average clinician recognize active peri-odontal/-implant disease?

1. Use of right diagnostic tools?
2. The skills to use the right diagnostic tools?
3. Perceptive abilities?
4. Correct interpretation of signs and symptoms?
5. Adequate judgment of the patient's needs?



Is there an indication of something big here?

How well does
the average
clinician
recognize active
peri-odontal/-
implant disease?



The sum of minor
indications may
indicate something
bigger!

What do non-periodontists actually know
about the current plethora of diagnoses of
periodontal diseases & conditions?

Periodontal Diseases and Conditions

- I. Gingivale sykdommer
 - A. Plakk-indusert gingivale sykdommer
 - B. Ikke-plakk-indusert gingivale lesjoner
- II. Kronisk periodontitt
- III. Aggressiv periodontitt
- IV. Periodontitt som manifestasjon av systemisk sykdom
- V. Nekrotiserende periodontale sykdommer
- VI. Abscesser i periodontiet
- VII. Periodontitt assosiert med endodontiske lesjoner
- VIII. Utviklings- eller ervervede deformiteter og tilstander

The American Academy of Periodontology. Classification System for Periodontal Diseases and Conditions. (Armitage GC. Annals of Periodontology 1999;4)
Norwegian translation: Anne M. Gussgard, DDS, MSc

I. Gingivale sykdommer

A. Plakk-indusert gingivale sykdommer

- 1) Gingivitt utelukkende assosiert med plakk
 - a) Uten andre lokale medvirkende faktorer
 - b) Med andre lokale medvirkende faktorer
- 2) Gingivale sykdommer modifisert av systemiske faktorer
 - a) Assosiert med det endokrine system
 - b) Assosiert med blodsykdommer
 - 3) Medikamentelt modifisert gingival sykdom
 - 4) Gingival sykdom på grunn av feilernæring

B. Ikke-plakk-indusert gingivale lesjoner

1. Gingival sykdom med spesifikk bakteriell opprinnelse
2. Gingival sykdom med viral opprinnelse
3. Gingival sykdom med sopp opprinnelse
4. Gingival sykdom med genetisk opprinnelse
5. Gingival manifestasjoner av systemiske sykdommer
 - a) Slimhinnesykdommer
 - 1) Lichen planus
 - 2) Pemhigoid
 - 3) Pemphigus vulgaris
 - 4) Erytema multiforme
 - 5) Lupus erythematosus
 - 6) Medikament-indusert
 - 7) Andre
 - b. Allergiske reaksjoner
 - 1) Dentale fyllingsmaterialer
 - a) Kvikksølv, b) Nikkel, c) Akryl d) Annet
 - 2) Reaksjoner som skyldes
 - a) Tannpasta, b) Munnskyllevæske
 - c) Tyggegummi d) Mat/tilsetningsstoffer
 - 3) Andre årsaker
6. Traumatiske lesjoner
 - a) Kjemisk skade b) Fysisk skade c) Termisk skade
7. Fremmedlegeme reaksjoner
8. Ellers ikke spesifisert

II. Kronisk periodontitt

A. Lokalisert

B. Generell

III. Aggressiv periodontitt

A. Lokalisert

B. Generell

IV. Periodontitt som manifestasjon av systemisk sykdom

A. Assosiert med hematologiske sykdommer

1. Ervervet neutropeni
2. Leukemier
3. Andre

B. Assosiert med genetiske sykdommer

1. Familiær neutropeni
2. Downs syndrom
3. Leukocyt adhejonsvikt (LAD)
4. Papillon-Lefevre syndrom
5. Histiocytose
6. Chediak-Higashi syndrom
7. Glykogenlagring lidelse
8. Infantil genetisk agranulocytose
9. Cohens syndrom
10. Ehlers-Danlos syndrom
11. Hypofosfatase
12. Andre

C. Ellers ikke spesifisert

V. Nekrotiserende periodontale sykdommer

- A. Nekrotiserende ulcerativ gingivitt (NUG)
- B. Nekrotiserende ulcerativ periodontitt (NUP)

VI. Abscesser i periodontiet

- A. Gingival abscess
- B. Periodontal abscess
- C. Pericoronal abscess

VII. Periodontitt assosiert med endodontiske lesjoner

Kombinert perio-endo lesjon

VIII. Utviklings- eller ervervede deformiteter og tilstander

A Lokaliserte tannrelaterte tannfaktorer som kan påvirke eller predisponere for plakkindusert gingivitt/periodontitt

1. Tannanatomiske faktorer
2. Dentale restaureringer
3. Rotfrakturer
4. Cervikale rotresorpsjoner

B. Muko-gingivale deformiteter og tilstander rundt tenner

1. Gingival bløtvevsretraksjon
2. Manglende keratinisert gingiva
3. Minsket vestibulær dybde
4. Stramt leppebånd
5. Gingiva-overskudd
6. Unormal gingival farge

C Muko-gingivale deformiteter og tilstander i tannløs kjeve

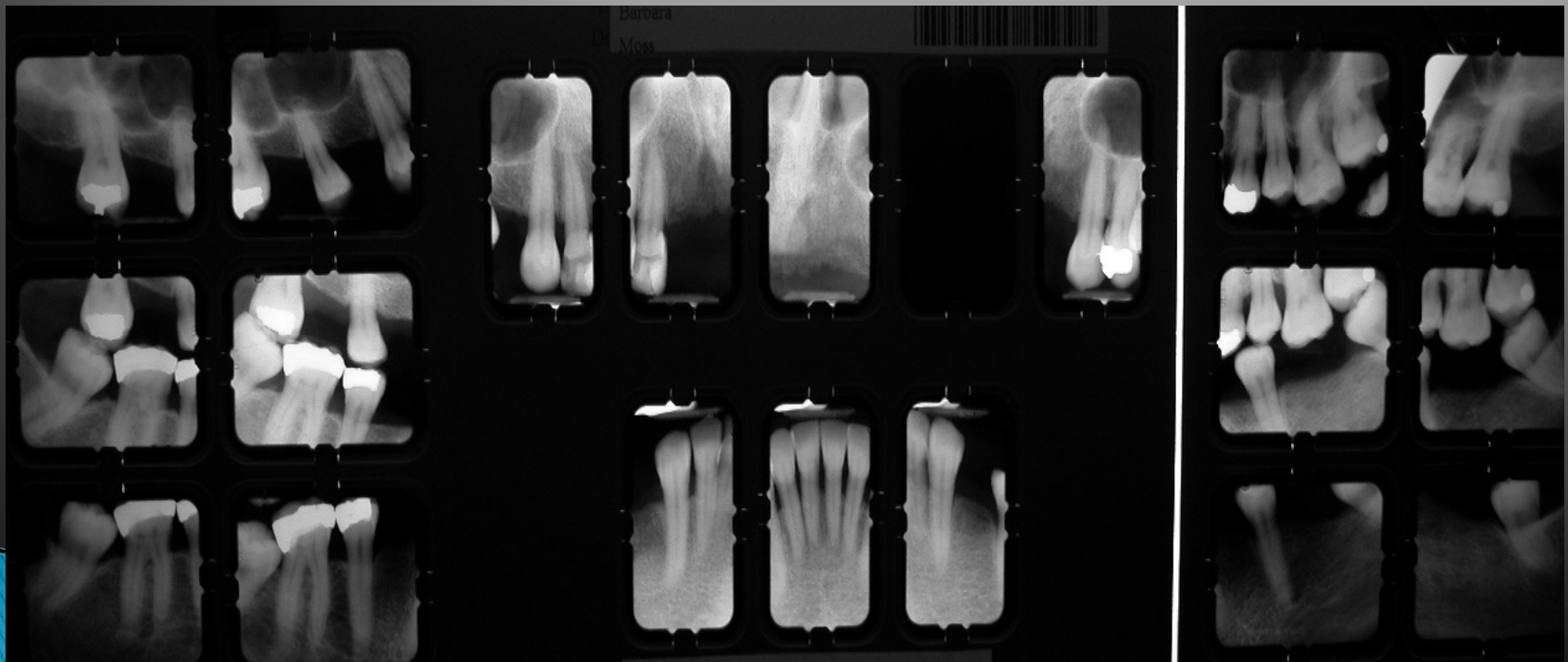
1. Vertikal og/eller horisontal kjevekamsdefekt
2. Manglende gingiva/keratinisert vev
3. Gingival/bløtvevs fortykning
4. Stramt leppebånd/muskelfester
5. Minsket vestibulær dybde
6. Unormal farge

D. Okklusal traume

1. Primær okklusal traume
2. Sekundær okklusal traume

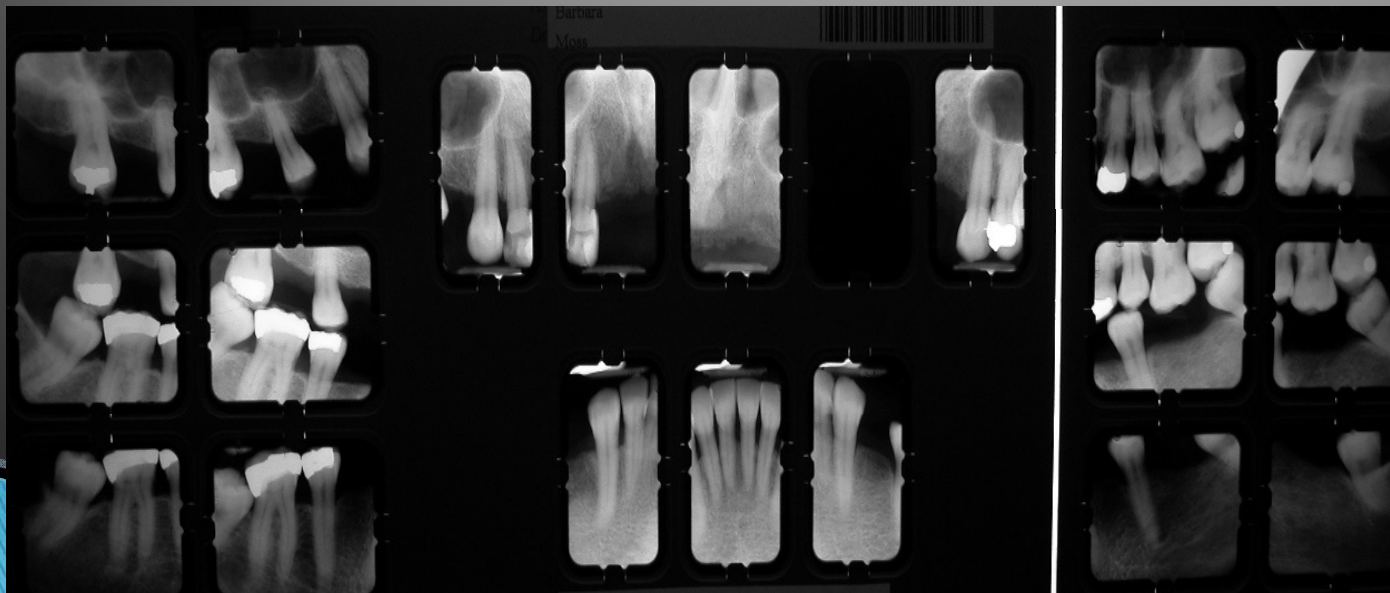
What does prosthodontists wish to obtain from periodontists?

1. The patient returned with no active periodontal disease and undesirable conditions of periodontal tissues

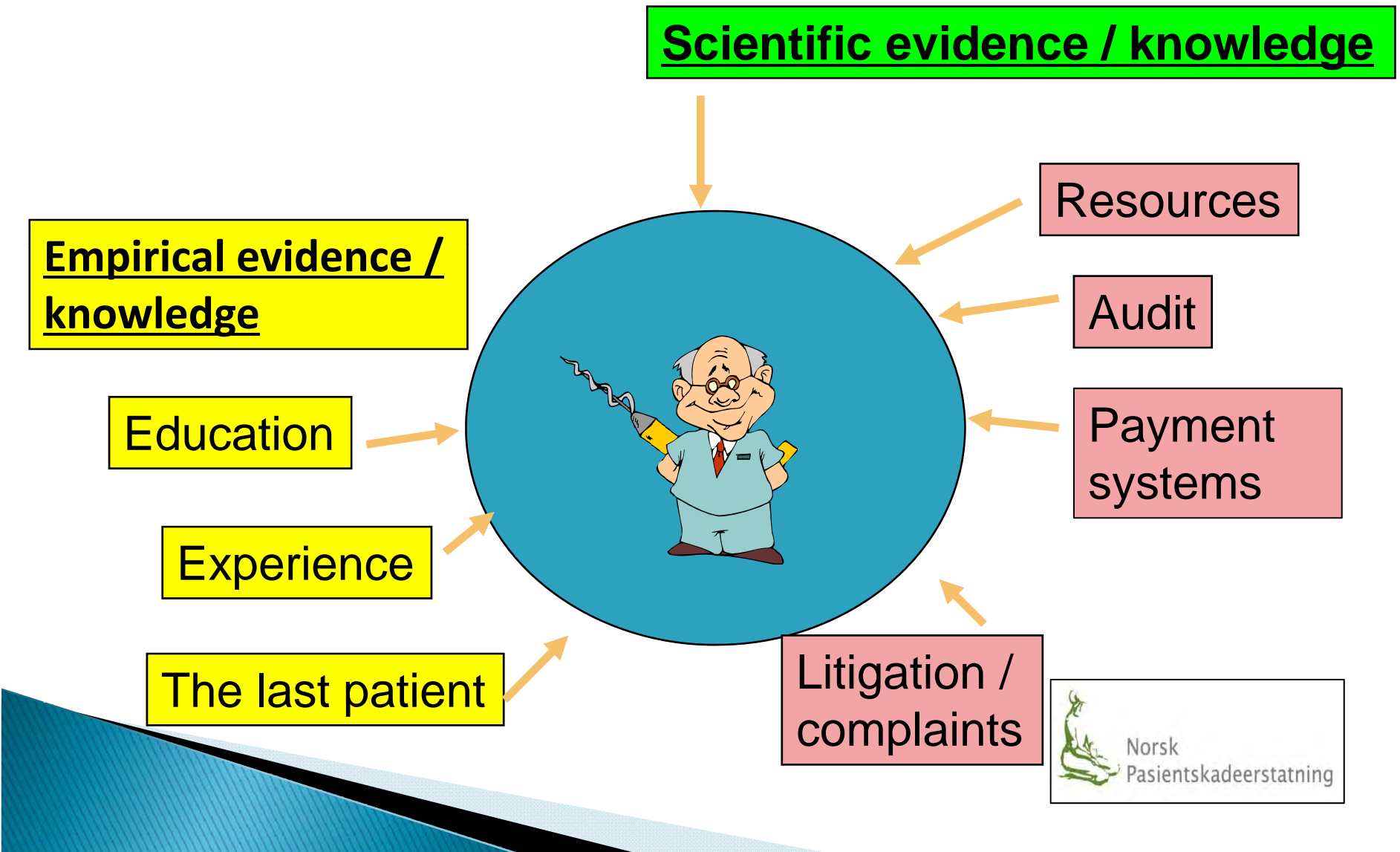


What does prosthodontists wish to obtain from periodontists?

1. The patient returned with no active periodontal disease and undesirable conditions of periodontal tissues
2. Suggestions for which teeth to save, the ones to monitor closely and the ones to extract?



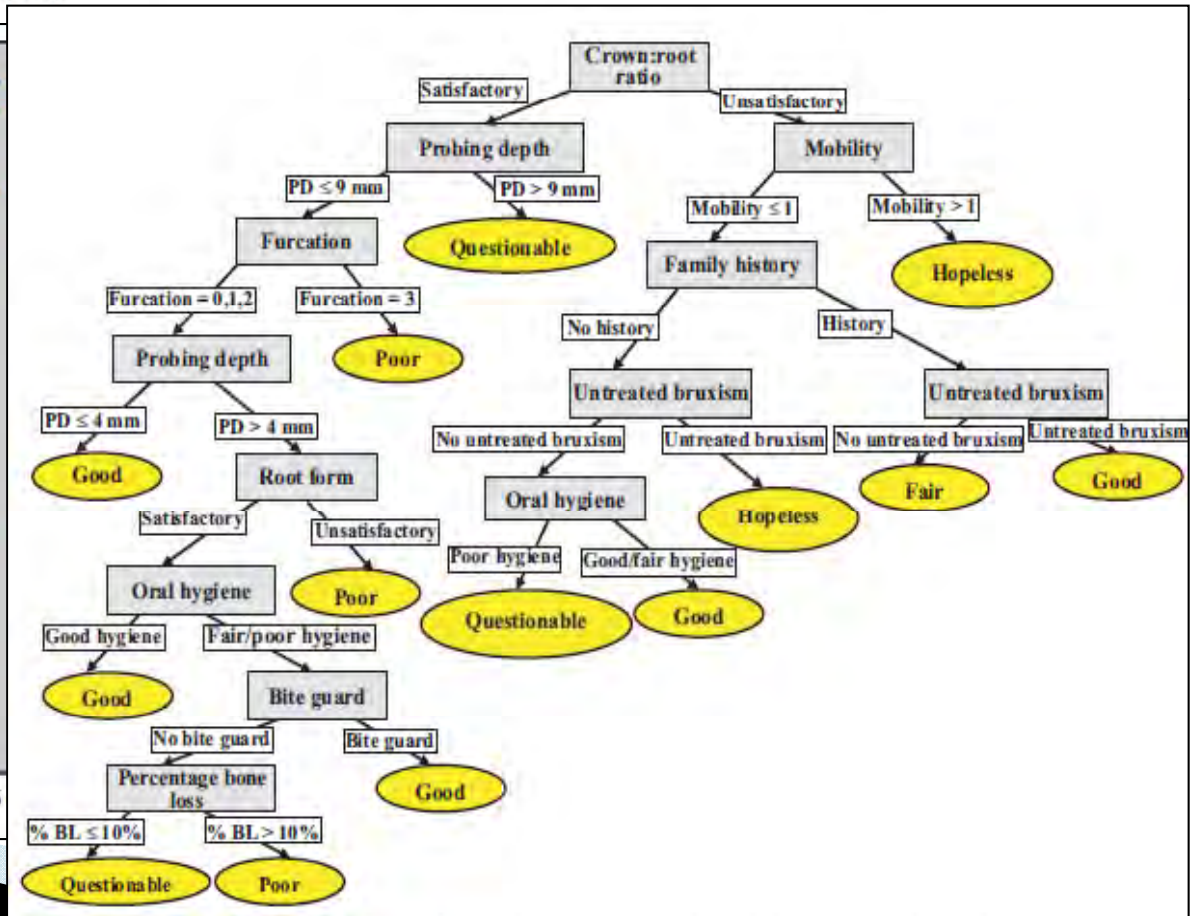
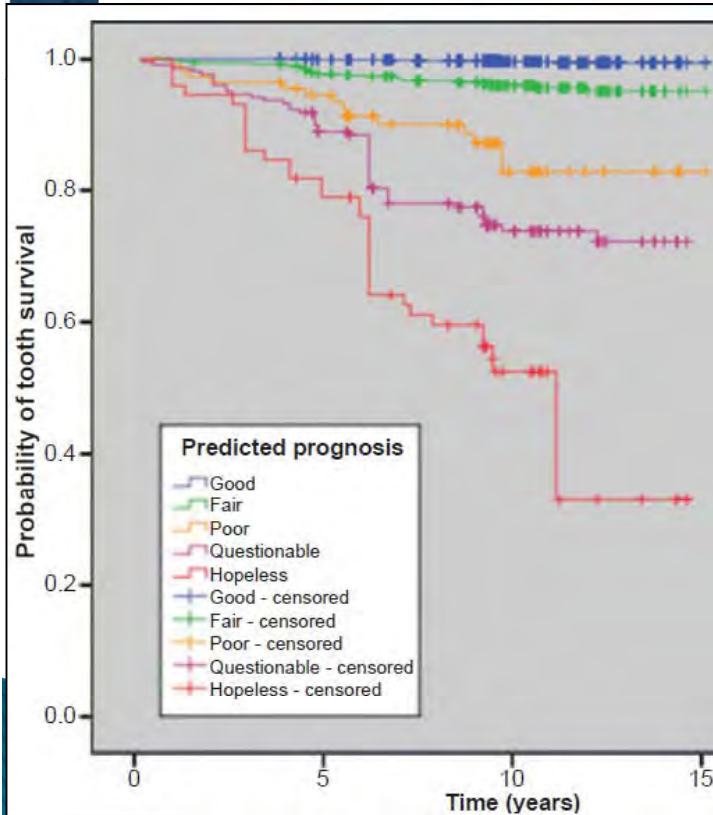
What influences clinician's treatment decision making?



**Scientific
evidence /
knowledge**

Development of prognostic indicators using classification and regression trees for survival

MARTHA E. NUNN, JUANJUAN FAN, XIAOGANG SU, RICHARD A. LEVINE,
HYO-JUNG LEE & MICHAEL K. MCGUIRE



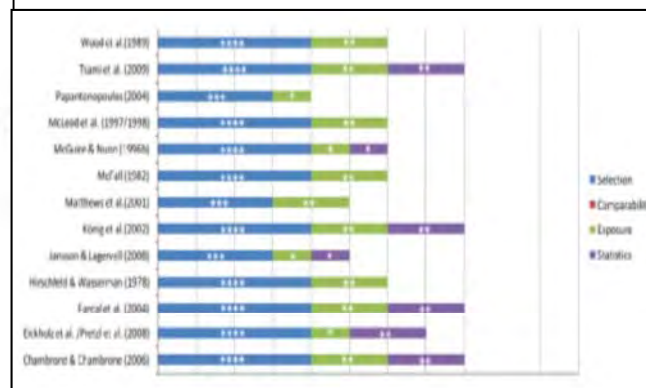
Predictors of tooth loss during long-term periodontal maintenance: a systematic review of observational studies

Leandro Chambrone¹, Daniela Chambrone², Luiz A. Lima¹ and Luiz A. Chambrone²

¹Department of Stomatology, Division of Periodontics, School of Dentistry, University of São Paulo, São Paulo, SP, Brazil; ²Private Practice, São Paulo, SP, Brazil



Chambrone L, Chambrone D, Lima LA, Chambrone LA. Predictors of tooth loss during long-term periodontal maintenance: a systematic review of observational studies. *J Clin Periodontol* 2010; 37: 675–684. doi: 10.1111/j.1600-051X.2010.01587.x



Tsami et al. (2009) Greece, Practice-based, n=280, 16–8y

Eickholz et al./Pretzl et al. (2008) Germany, University-based, n=100, av.10y

Jansson & Lagerwall (2008) Sweden, University-based, n=60, 24–10y

Chambrone & Chambrone (2006) Brazil, Practice-based, n=120, 36–10y

Fardal et al. (2004) Norway, Practice-based, n=100, 11–9y

König et al. (2002) Germany, University-based, n=146, 13–8y

Matthews et al. (2001) Canada, University-based, n=335, 38–10y

McLeod et al. (1998) USA, University-based, n=100, 29–5y

McGuire & Nunn (1996 / 1991) USA, Practice-based, n=100, 16–5y

Wood et al. (1989) USA, University-based, n=63, 34–10y

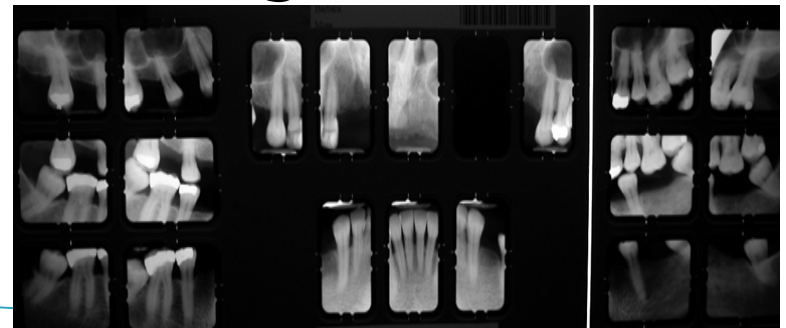
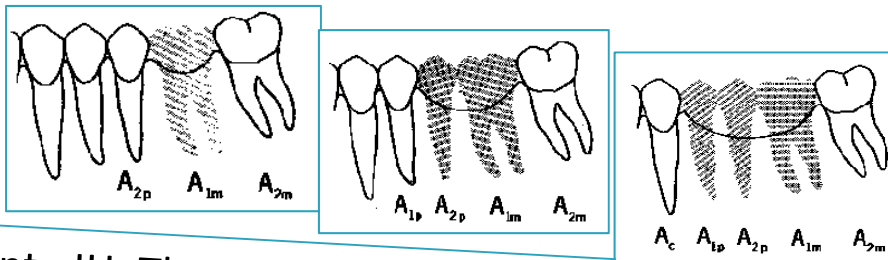
McFall (1982) USA, University-based, n=100, 29–15y

Hirschfeld & Wasserman (1978) USA, Practice-based, n=600, 53–15

Age, smoking and initial tooth prognosis can be associated with tooth loss during periodontal maintenance. Considerable heterogeneity among studies does not allow definitive conclusions

What does prosthodontists wish to obtain from periodontists?

1. The patient returned with no active periodontal disease and undesirable conditions of periodontal tissues
2. Suggestions for the teeth to save, the ones to monitor closely and the ones to extract
3. Opinion whether there is enough supporting bone around potential fixed bridge abutments



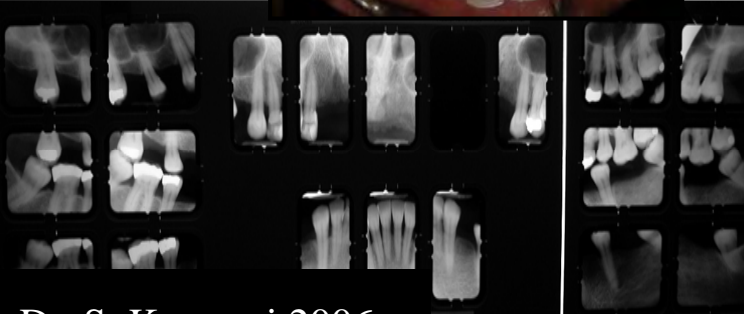
Ante IH. The fundamental principles of abutments. Michigan State Dent Soc Bull 1926; 8: 14-23
The total periodontal membrane area of the abutment teeth must equal or exceed that of the teeth to be replaced. The length of the periodontal membrane attachment of an abutment tooth should be at least $\frac{1}{2}$ or $\frac{2}{3}$ of that of its normal root attachment.

FØR

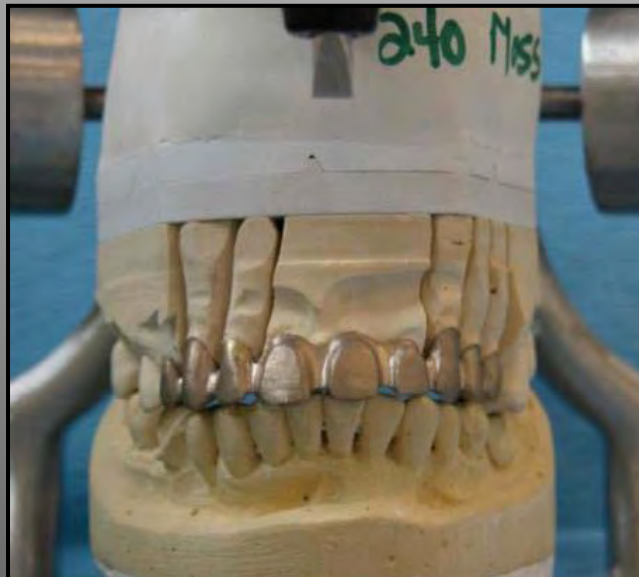
Med partiell protese



Uten partiell protese



UNDER



ETTER



What influences clinician's treatment decision making?

Experience is simply the name we give our mistakes (Oscar Wilde)

Scientific evidence / knowledge

Empirical evidence / knowledge

Education

Experience

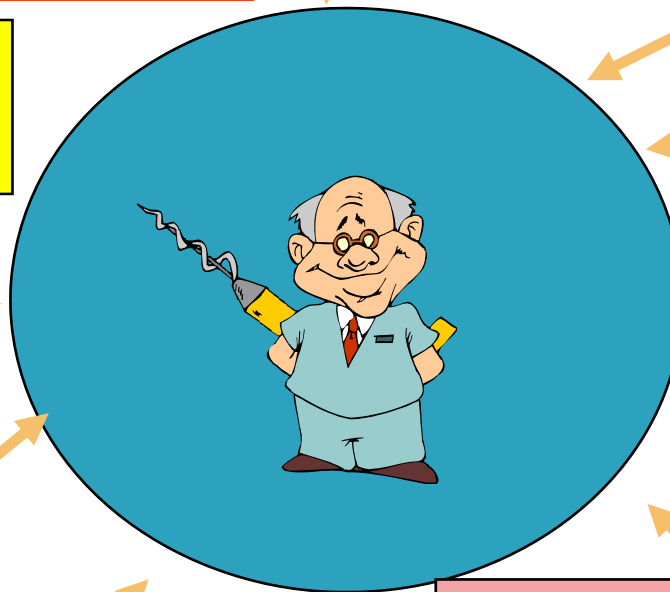
The last patient

Resources

Audit

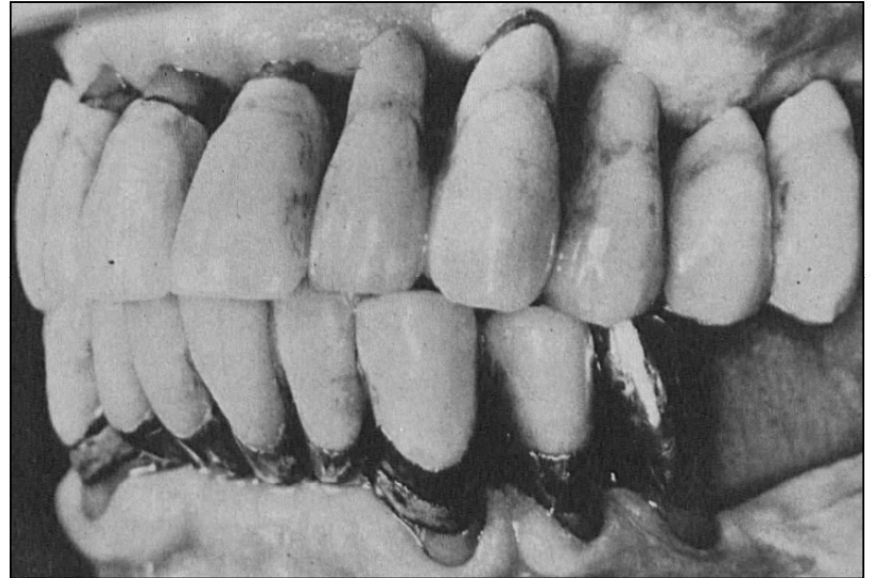
Payment systems

Litigation / complaints



Periodontal FDPs

- A biological rationale for splinting compromised teeth
- Highly successful with 20 years+ clinical follow-ups
- Close follow-up and excellent patient compliance



Restored 1969-1973, Göteborg University, Sweden
Reports by: Nyman & Lindhe & Lundgren 1975a,b
1976a, b, c, 1977...1984

What does prosthodontists wish to obtain from periodontists?

1. The patient returned with no active periodontal disease and undesirable conditions of periodontal tissues
2. Suggestions for the teeth to save, the ones to monitor closely and the ones to extract
3. Opinion whether there is enough supporting bone around potential fixed bridge abutments
4. Pre- & post-prosthodontic surgery interventions



Pre- / Post-prosthetic surgery interventions

Pre-prosthetic

- ▶ Clinical crown lengthening
 - Symmetry
 - Added retention
- ▶ Pontic tissue sculpturing, enhancement
- ▶ Hemisection

Post-prosthetic

- ▶ Crown margin exposure
 - ▶ Pontic tissue sculpturing, loss / hyperplasia
 - ▶ Gingival hyperplasia
- 

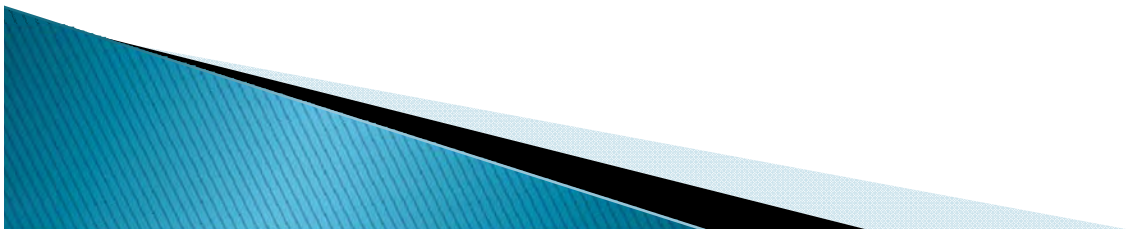
Pre- / Post-prosthetic surgery interventions

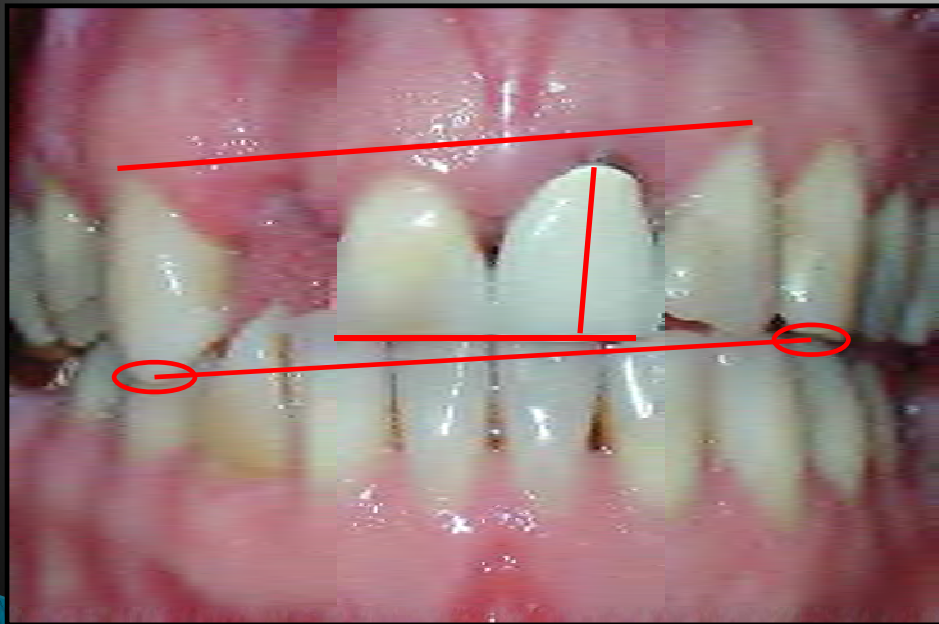
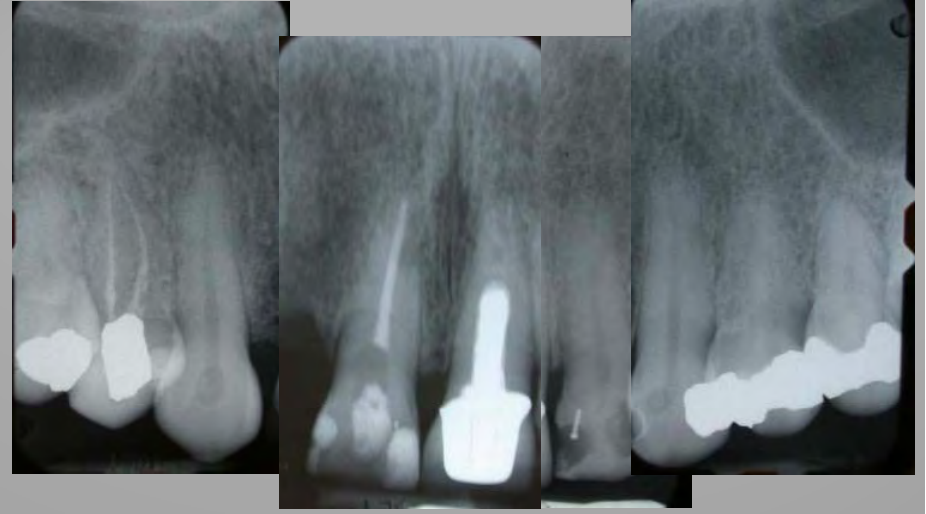
Pre-prosthetic

- ▶ **Clinical crown lengthening ***
 - Symmetry
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- ▶ Hemisection

Post-prosthetic

- ▶ Crown margin exposure
- ▶ Pontic tissue sculpturing, loss / hyperplasia
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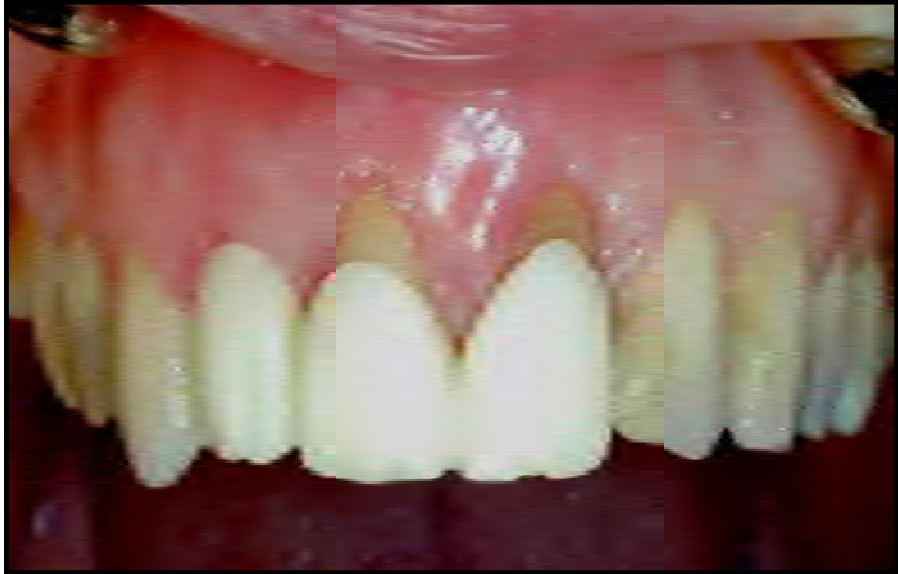


Plan

1. Endo 11 & 21 evaluation
2. Prelim. crown prep. 11 & 21 + temp
3. Crown lengthening 11 & 21 & soft tissue correction 13-11 space
4. Temporaries
5. 3-unit FDP x-11-21









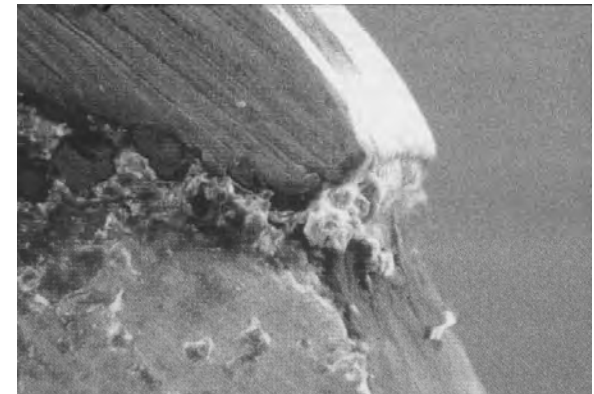
Grovbrent

Karakterisering og
glansing



Prosthesis' attributes as risk factors for periodontal disease

- ▶ Prosthesis material
 - Degradation
- ▶ Prosthesis surface
 - Surface adhesion
 - Polishability
- ▶ Prosthesis geometry
 - Contour \leftrightarrow access
 - Margin qualities / discrepancies
 - Occlusion
 - Tissue impingement
- ▶ Patient education





Dr J Valderhaug
(†1999)

Prospective cohort study 25+ yrs



PII: S0300-5712(96)00008-5

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Printed in Great Britain
0300-5712/97 \$17.00+0.00

Assessment of the periapical and clinical status of crowned teeth over 25 years

J. Valderhaug, A. Jokstad, E. Ambjørnsen and P. W. Norheim
Department of Prosthetic Dentistry and Stomatognathic Physiology, Dental Faculty, University of Oslo, Oslo, Norway

ABSTRACT

Objectives: The purpose of this study was to examine radiographically changes in the periapical status and compare the clinical status of teeth with a vital pulp and root-filled teeth restored with crowns and bridge retainers during 25 years.

Methods: During 1967/68, 114 patients received prosthodontic treatment by senior dental students at the Oslo Dental Faculty. In all, 291 teeth with a vital pulp and 106 root-filled teeth were restored with 158 prostheses. All root-filled teeth were restored with a cast dowel and core. The casts were made in a type-3 gold alloy, and cemented with zinc phosphate cement. Forty-six teeth were restored with crowns and 351 teeth with bridge retainers. Radiographs were taken preoperatively, immediately after cementation, and

- Oral hygiene, periodontal conditions and carious lesions in patients treated with dental bridges. A **15-year** clinical and radiographic follow-up study. *J Clin Periodontol*. 1993
- Periodontal conditions and carious lesions following the insertion of fixed prostheses: a **10-year** follow-up study. *Int Dent J*. 1980
- Periodontal conditions in patients **5 years** following insertion of fixed prostheses. Pocket depth and loss of attachment. *J Oral Rehabil*. 1976



**Thank you
for your
kind
attention**