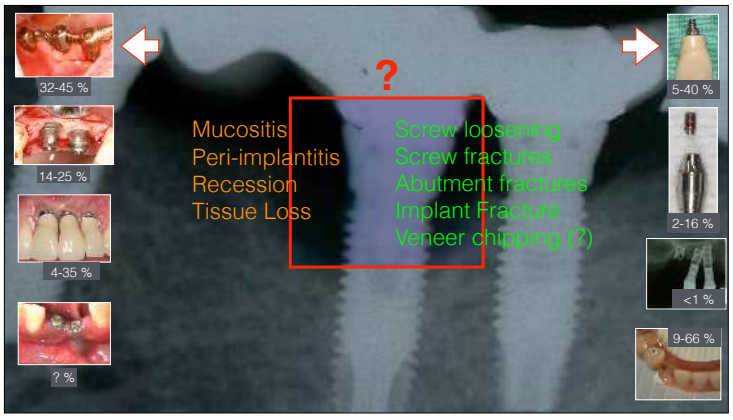
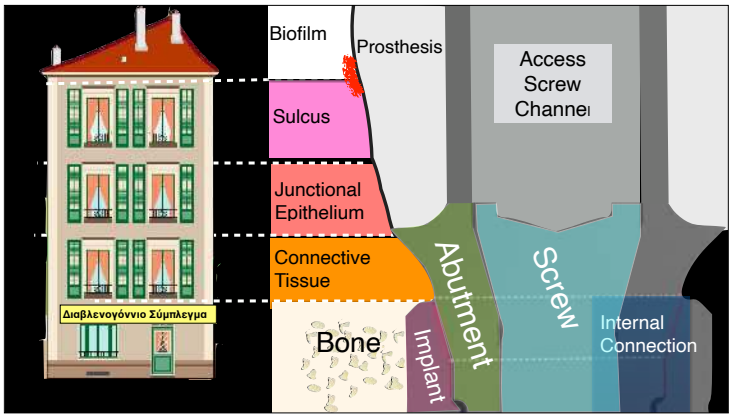
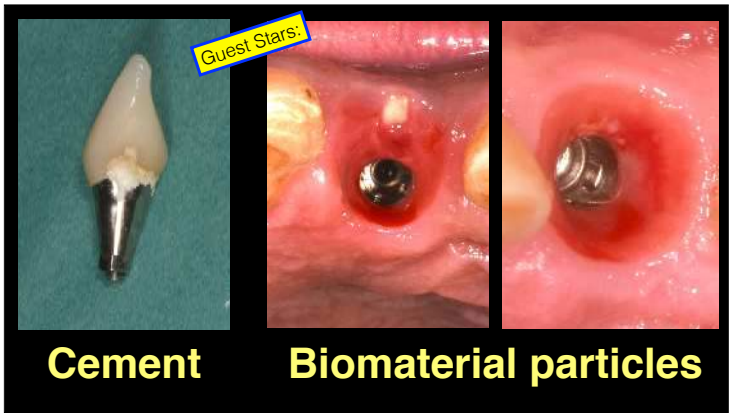

Το διαβλεννογόνιο Σύμπλεγμα
e-θέσεις, αντιθέσεις, συνθέσεις στη
Σταθερότητα του Περιεμφυτευματικού Βλεννογόνου
Live, Ιούνιος 2020
Νίκος Ματθαίος, DDS, MASc, PhD

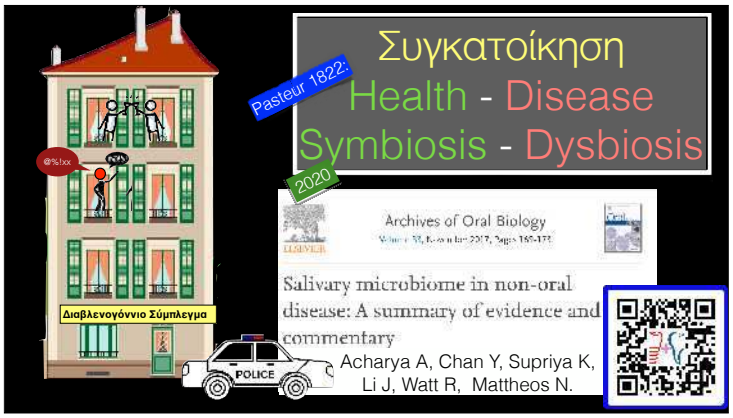

καλησπέρα από Hong Kong!

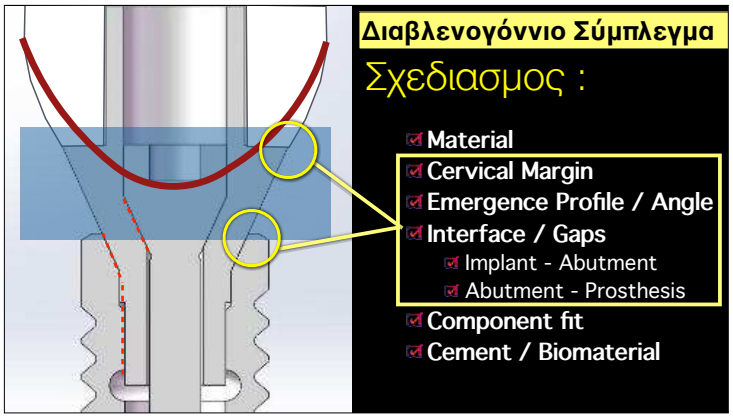
ΣΤΑΘΕΡΟΤΗΤΑ = ΟΜΟΙΟΣΤΑΣΗ

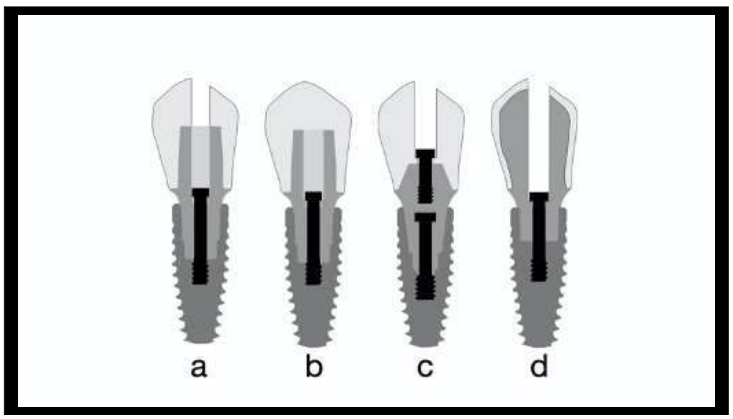


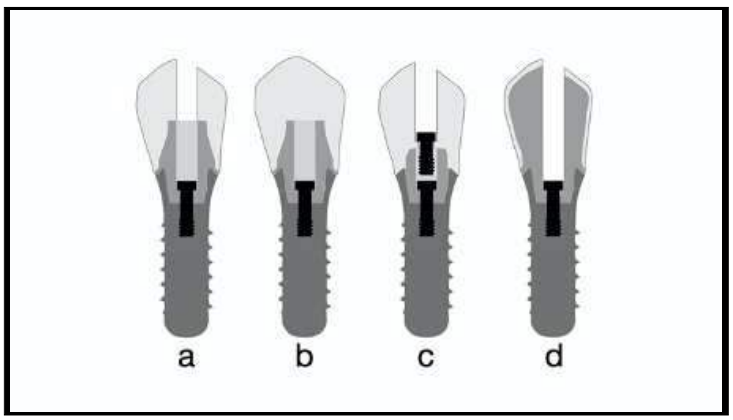

Biofilm
Prosthesis
Access
Screw
Channel
Sulcus
Junctional
Epithelium
Connective
Tissue
Abutment
Screw
Internal
Connection
Bone
Implant
Διαβλεγογόννιο Σύμπλεγμα

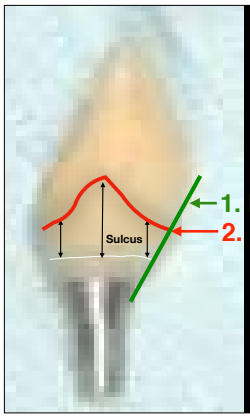

Guest Stars:
Cement
Biomaterial particles


Pasteur 1822:
Συγκατοίκηση
Health - Disease
Symbiosis - Dysbiosis
2020
Archives of Oral Biology
Salivary microbiome in non-oral disease: A summary of evidence and commentary
Acharya A, Chan Y, Supriya K, Li J, Watt R, Mattheos N.
Διαβλεγογόννιο Σύμπλεγμα
POLICE


Διαβλενογόννιο Σύμπλεγμα
Σχεδιασμος :
Material
Cervical Margin
Emergence Profile / Angle
Interface / Gaps
Implant - Abutment
Abutment - Prosthesis
Component fit
Cement / Biomaterial


a
b
c
d


a
b
c
d



1. Emergence Angle
2. Cervical Margin

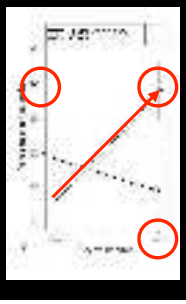
Restoration contour is a risk indicator for peri-implantitis: A cross-sectional radiographic analysis

Emergence angle >30 + convex correlates with peri implantitis

Emergence angle is correlated to depth of placement

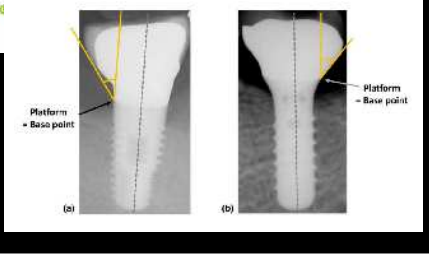
crestal	subcrestal
29.0	22.3

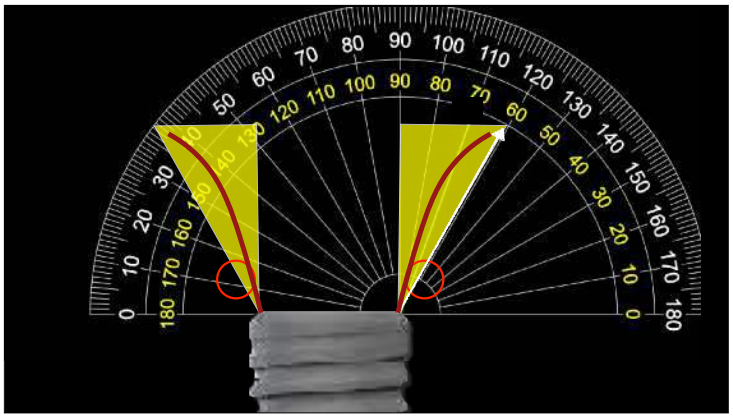
Emergence Angle

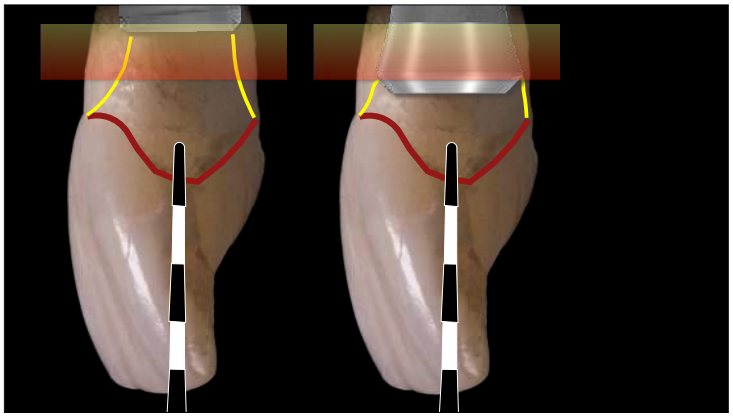


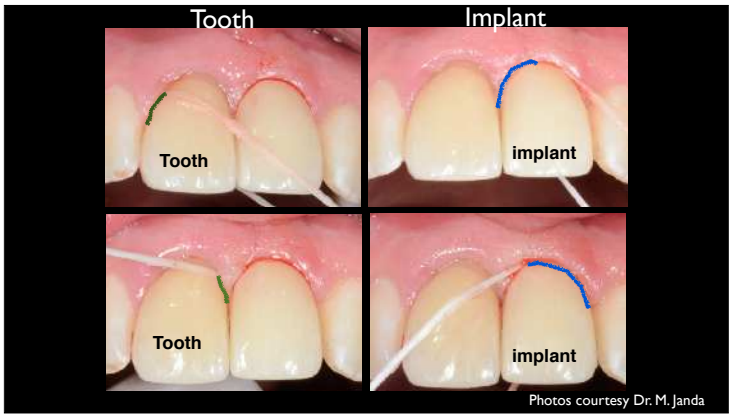
IMPLANT DENTISTRY

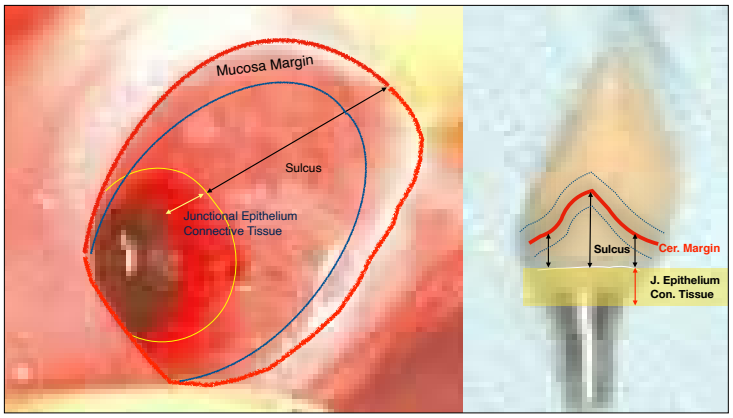
Association of prosthetic features and peri-implantitis: A cross-sectional study








Tooth
Implant
Tooth
implant
Tooth
implant
Photos courtesy Dr. M. Janda



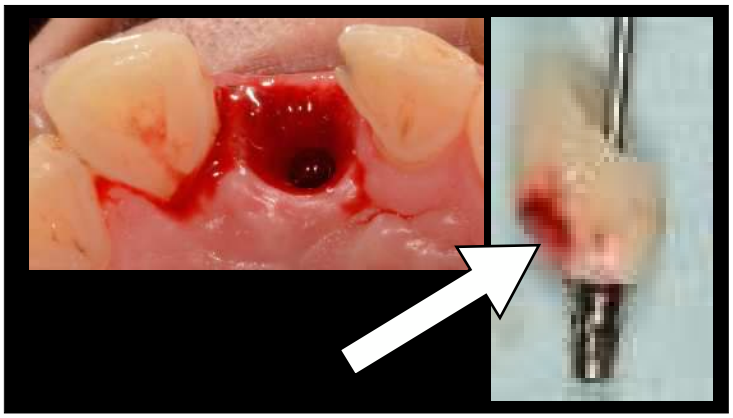
Human Clinical Trials, proving that Plaque accumulation will lead to peri-implant Mucositis, in less than 3 weeks...

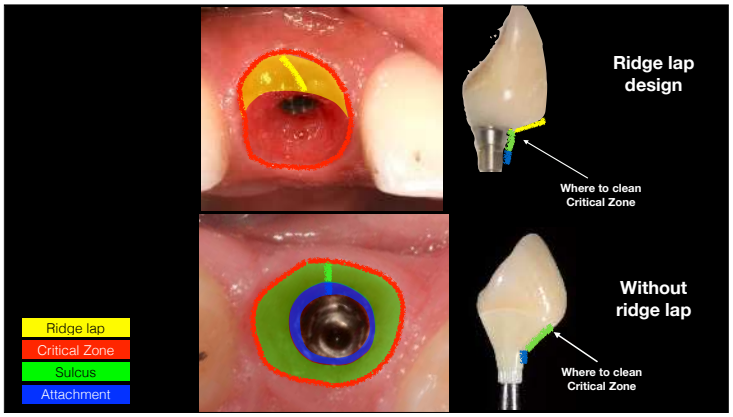
(1) Clin Oral Implants Res. 1994 Dec;5(4): 254-9. Experimentally induced peri-implant mucositis. A clinical study in humans. Pontoriero, et al.

(2) J Clin Periodontol. 2001 Jun;28(6):517-23. Experimental peri-implant mucositis in man. Zitzmann et al.

(3) Clin Oral Implants Res. 2012 Feb;23(2):182-90. Reversibility of experimental periimplant mucositis comparedwith experimental gingivitis in humans. Salvi et al.

(4) J Clin Periodontol. 2019 Feb;46(2):248-255. 7.The depth of the implant mucosal tunnel modifies the development and resolution of experimental peri-implant mucositis: A case-control study. Chan D et al




Ridge lap
Critical Zone
Sulcus
Attachment
Ridge lap design
Where to clean Critical Zone
Without ridge lap
Where to clean Critical Zone

Restoration contour is a risk indicator for peri-implantitis: A cross-sectional radiographic analysis

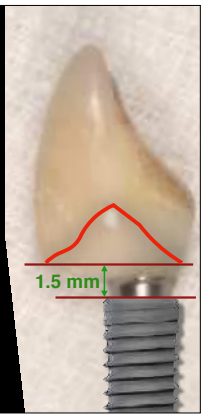
Diane M. Daubert

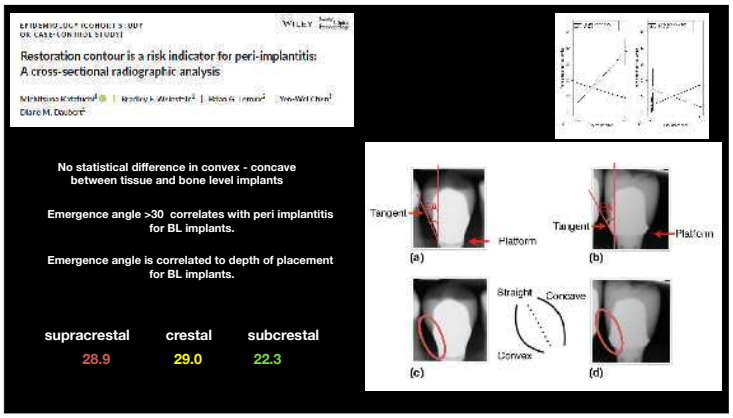
Emergence angle >30 + convex correlates with peri implantitis

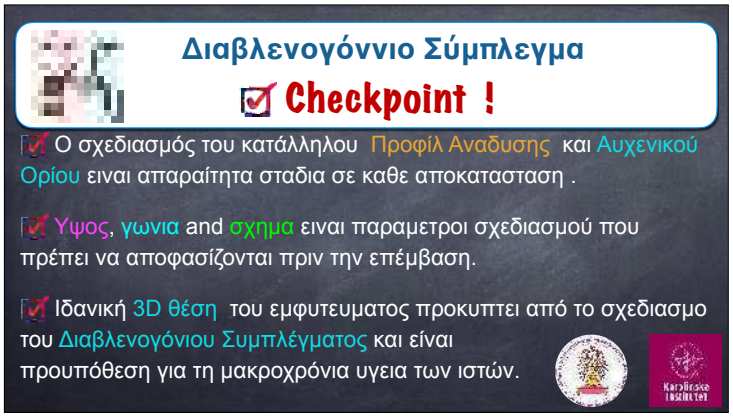
Emergence angle is correlated to depth of placement

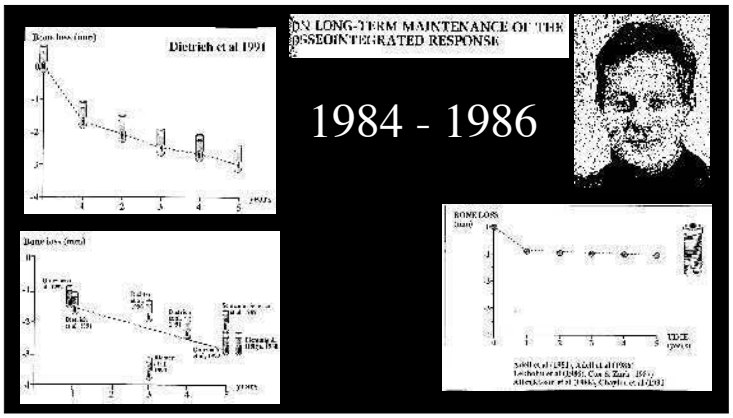
crestal	subcrestal
29.0	22.3

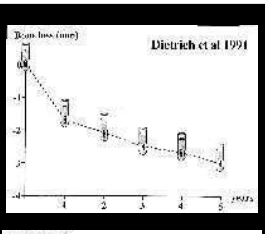
Emergence Angle

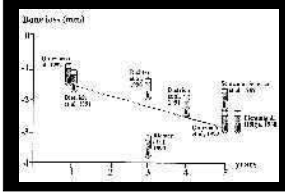



Restoration contour is a risk indicator for peri-implantitis: A cross-sectional radiographic analysis
No statistical difference in convex - concave between tissue and bone level implants
Emergence angle >30 correlates with peri implantitis for BL implants.
Emergence angle is correlated to depth of placement for BL implants.
supracrestal
crestal
subcrestal
28.9
29.0
22.3
Tangent
Platform
(a)
(b)
Straight
Concave
Convex
(c)
(d)


Διαβλενογόννιο Σύμπλεγμα
Checkpoint !
Ο σχεδιασμός του κατάλληλου Προφίλ Αναδυσης και Αυχενικού Ορίου ειναι απαραίτητα σταδια σε καθε αποκατασταση .
Υψος, γωνια and σχημα ειναι παραμετροι σχεδιασμού που πρέπει να αποφασίζονται πριν την επέμβαση.
Ιδανική 3D θέση του εμφυτευματος προκυπτει από το σχεδιασμο του Διαβλενογόνιου Συμπλέγματος και είναι προυπόθεση για τη μακροχρόνια υγεια των ιστών.


Bone loss (mm)
Dietrich et al 1991
ON LONG-TERM MAINTENANCE OF THE OSSEOINTEGRATED RESPONSE
1984 - 1986
BONE LOSS





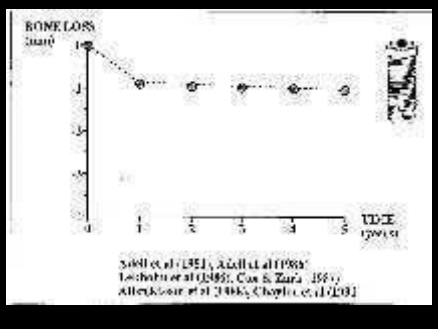
NIH-Proposal, Schnitman and Shulman,[18] 1979

1. Mobility of less than 1 mm in any direction.
2. Radiologically observed radiolucency graded but no success criterion defined.
3. Bone loss no greater than a third of the vertical height of the implant.
4. Gingival inflammation amenable to treatment. Absence of symptoms and infection, absence of damage to adjacent teeth, absence of paresthesia and anesthesia or violation of the mandibular canal, maxillary sinus, or floor of the nasal passage.
5. To be considered successful, the dental implant should provide functional service for five years in 75% of the cases.

1979

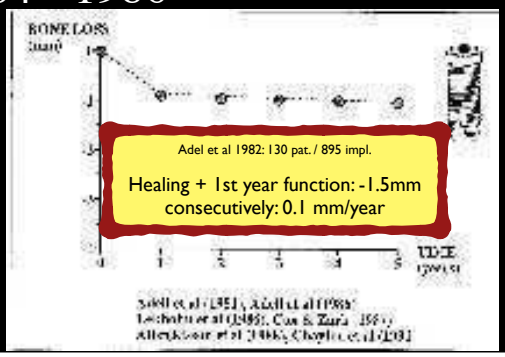
1984 - 1986

ON LONG-TERM MAINTENANCE OF THE OSSEOINTEGRATED RESPONSE



1984 - 1986

ON LONG-TERM MAINTENANCE OF THE OSSEOINTEGRATED RESPONSE



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5. To be considered successful, the dental implant should provide functional service for five years in 75% of the cases.

1979

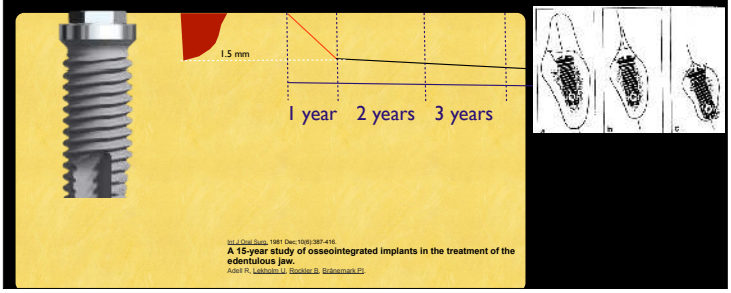
Proposal by Albrektsson, Zarb, Worthington, and Eriksson, 1986

1. That an individual, unattached implant is immobile when tested clinically.
2. That a radiograph does not demonstrate any evidence of peri-implant radiolucency.
3. That vertical bone loss be less than 0.2 mm annually following the implant's first year of service.
4. That individual implant performance be

Adel et al 1982: 130 pat. / 895 impl.

Healing + 1st year function: -1.5mm
consecutively: 0.1 mm/year

1986



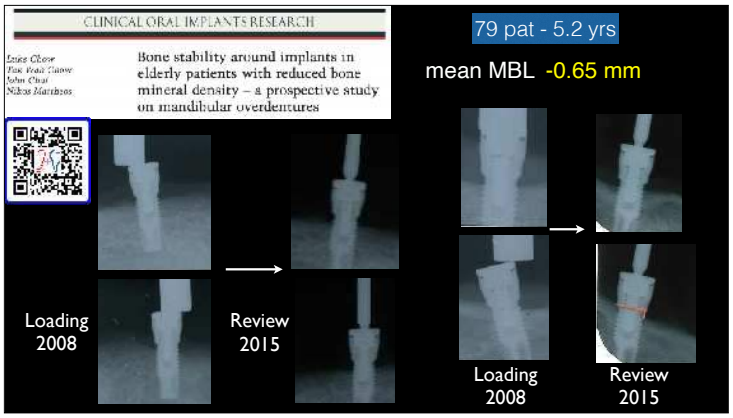
Int J Oral Surg. 1981 Dec;10(6):387-416.
A 15-year study of osseointegrated implants in the treatment of the edentulous jaw.
Adell R, Lekholm U, Rockler B, Brånemark PI.

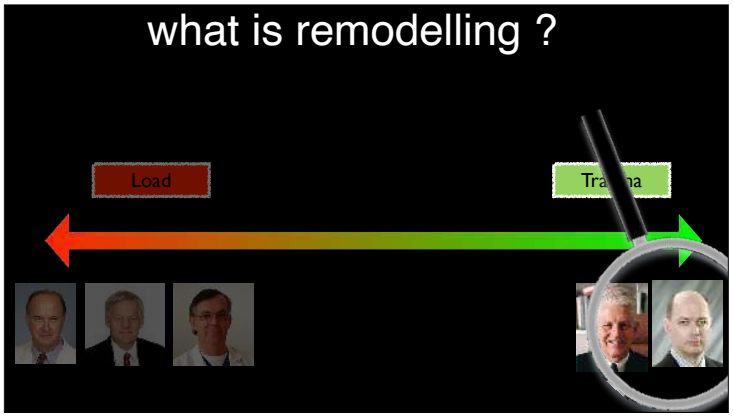
Micromovements at the Implant-Abutment Interface: Measurement, Causes, and Consequences

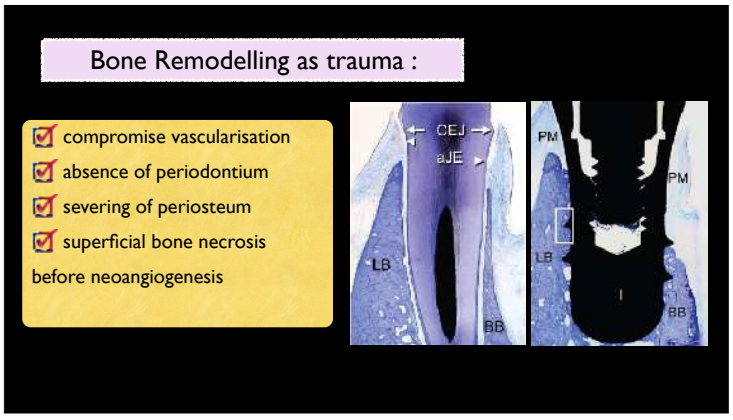
Zipprich H, Weigl P, Lange B, Lauer HC

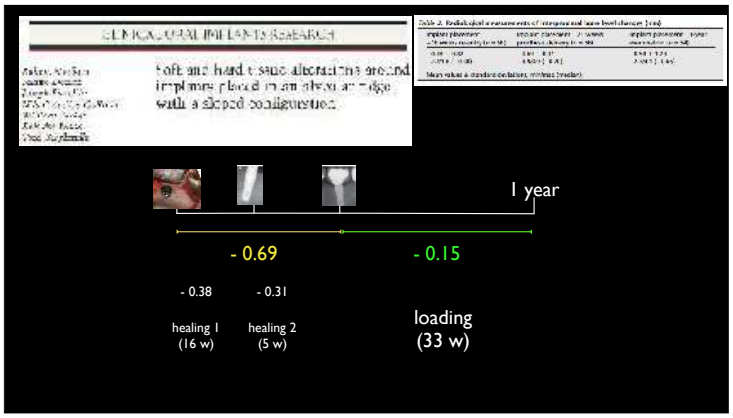
Goethe University, Frankfurt Am Main

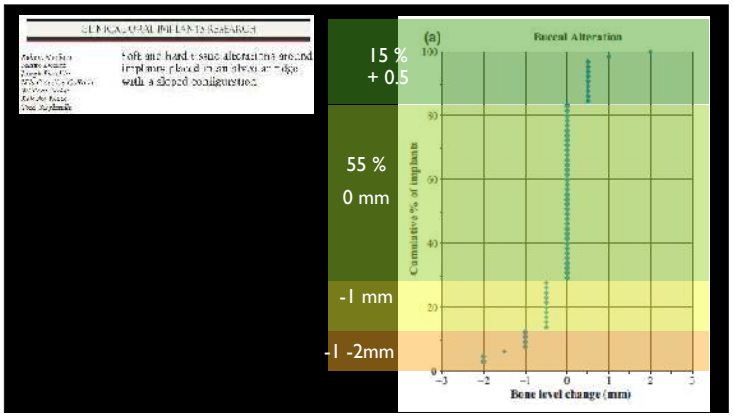
https://www.moi.uni-frankfurt.de/xrayvideo/index_en.php

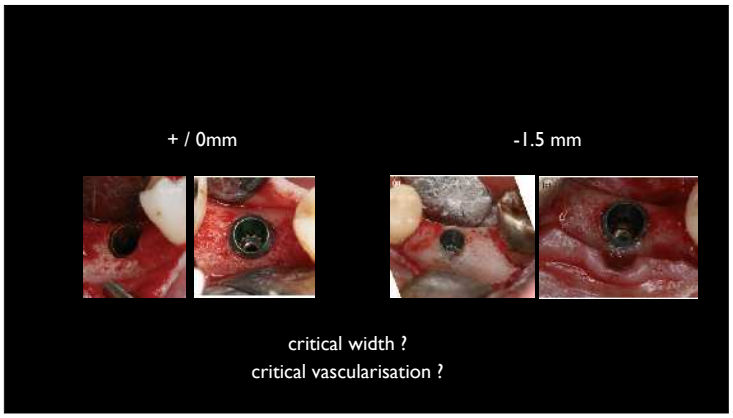

CLINICAL ORAL IMPLANTS RESEARCH
Bone stability around implants in elderly patients with reduced bone mineral density – a prospective study on mandibular overdentures
79 pat - 5.2 yrs
mean MBL -0.65 mm
Loading 2008
Review 2015
Loading 2008
Review 2015


what is remodelling ?
Load


Bone Remodelling as trauma :
compromise vascularisation
absence of periodontium
severing of periosteum
superficial bone necrosis
before neoangiogenesis
CEJ
aJE
LB
BB
PM
PM
LB
BB


Soft and hard tissue alterations around implants placed in an alveolar ridge with a sloped configuration
1 year
- 0.69
- 0.15
- 0.38
- 0.31
healing 1 (16 w)
healing 2 (5 w)
loading (33 w)


Soft and hard tissue alterations around implants placed in an alveolar ridge with a sloped configuration
15 %
+ 0.5
55 %
0 mm
-1 mm
-1 -2mm
(a)
Buccal Alteration
Cumulative % of implants
Bone level change (mm)


+ / 0mm
-1.5 mm
critical width ?
critical vascularisation ?

ORIGINAL RESEARCH

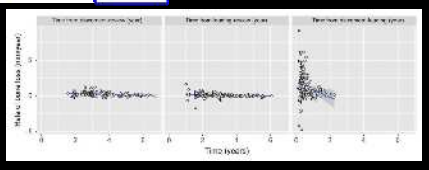
WILEY

Peri-implant marginal bone loss rate pre- and post-loading: An exploratory analysis of associated factors

Aneesha Acharya[1,2] | Ming Chi Terrence Leung[1] | King Tung Ng[1] | Michael H.M. Fan[1] | George Fokas[1] | Nikos Mattheos[1]

154 healthy implants
86 patients
1.6 – 6.8 years

Rate of Bone Loss:
Placement-loading : 0.9 mm/year
Loading-review 0.06 mm/year
Placement-review 0.21 mm/year



"A primary finding was that the rate of bone loss was not a stablelinear trait but de-accelerated with time".

Διαβλενογόννιο Σύμπλεγμα

☑ Checkpoint !

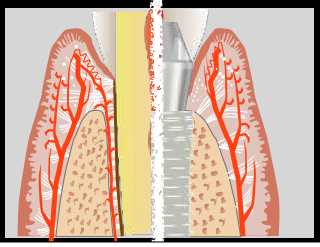
☑Κενα μεταξύ των συνδεσεων του Διαβλενογόννιου Συμπλεγματος μπορει να οδηγησουν σε σημαντική απώλεια ιστων

☑ Απώλεια περι-εμφυτευματικου οστικού ύψους κατα την περιοδο της οστεοενσωμάτωσης δεν πρεπει να θεωρείται δεδομένη, αλλα σχετίζεται με τη συγκεκριμένη ανατομια και το σχεδιασμο.

☑Απορρόφηση περι-εμφυτευματικου οστού συμβαίν διαφορετικό ρυθμό κατά περιοδους.

Karolinska Institutet

Periodontal	Peri-implant
☑ Physiological	☑ Repair tissue
☑ stable in health	☑ stable in health
☑ contain disease progression	☑ compromised

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e - θέσεις, αντιθέσεις, συνθέσεις
στη
ΣΤΑΘΕΡΟΤΗΤΑ ΤΟΥ ΠΕΡΙΕΜΦΥΤΕΥΜΑΤΙΚΟΥ ΒΛΕΝΝΟΓΟΝΟΥ
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nikos@mattheos.net
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