

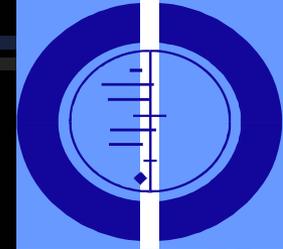
# THE EFFICACY OF DENTAL IMPLANTS: EVIDENCE-BASED OVERVIEWS

From 11 Cochrane reviews on  
osseointegrated dental implants

Last update, Jan 2007

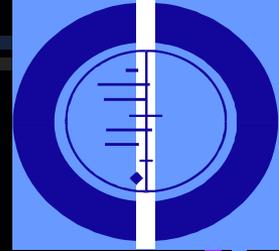
Esposito, Coulthard, Worthington; Thomson,  
Wennerberg, Jokstad

<http://www.cochrane-oral.man.ac.uk>



# Cochrane systematic reviews

1. Fresh extraction sockets 2006
2. Perimplantitis 2006 ver.2
3. Bone augmentation techniques 2006 ver.2
4. Zygomatic implants 2005 ver.2
5. Various implant systems 2003 ver.3
6. Immediate/early or delayed loading 2004 ver.2
7. Maintenance 2004 ver.2
8. Hyperbaric oxygen therapy 2003
9. Use of prophylactic antibiotics 2003
10. Surgical techniques 2003
11. Preprosthetic surgery vs implants 2002



# 1. Fresh extraction sockets

Last literature search: Aug 2006

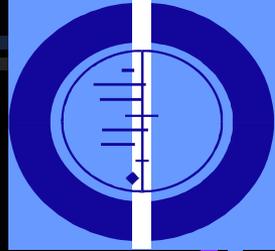
2 RCTs – 96 patients

Conclusion:

*Immediate implants and immediate-delayed implants may offer some advantages over conventional implants in healed sites in terms of patient satisfaction and aesthetics possibly by preserving alveolar bone.*

*Immediate implants can work and are able to shorten treatment periods, however properly designed RCTs are still needed to fully evaluate the potential advantages and risks of this treatment modality since more complications and failures may occur*

## 2. Perimplantitis - ver 2. 2006



Last literature search: March 2006  
5 RCTs – 134 patients

### Conclusion:

*There is no reliable evidence suggesting which could be the most effective interventions for treating perimplantitis.*

# 3. Bone augmentation techniques

— ver. 2 2006

Last literature search: October 2005

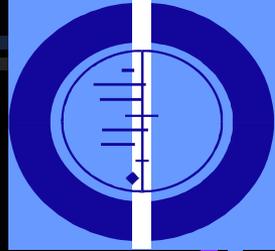
13 RCTs – 330 patients

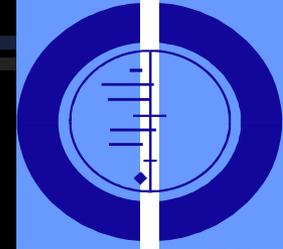
## Conclusion:

*Major bone grafting procedures of extremely resorbed mandibles may not be justified.*

*Bone substitutes (Bio-Oss or Cerasorb) may replace autogenous bone for sinus lift procedures of extremely atrophic sinuses.*

*Both guided bone regeneration (GBR) procedures and distraction osteogenesis can augment bone vertically, but it is unclear which is the most efficient technique.*





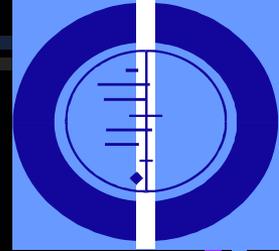
## 4. Zygomatic implants – ver 2. 2005

Last literature search: May 2005  
0 RCTs

### Conclusion:

*Cannot answer whether Zygomatic implants without bone grafting versus conventional implants in grafted or regenerated bone is superior*

# 5. Various implant characteristics & systems ver.3 -2005



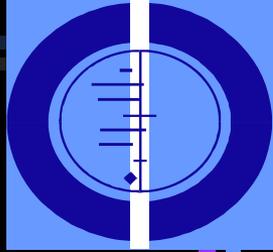
Last literature search: June 2004

12 RCTs with 512 participants and 12 different implant systems (19 RCTs were excluded). 4 RCTs with a 5-year follow-up

## Conclusion:

*Minor significant differences in marginal bone loss and in the occurrence of perimplantitis. No statistically significant difference in failure rates. We do not know whether any implant system is superior to the others.*

## 6. Immediate, early or conventional loading - ver.2-2004



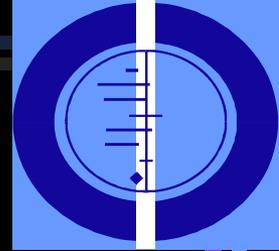
Last literature search: February 2004

5 RCTs with 124 participants (2 RCTs excluded)

### Conclusion:

*While it is possible to successfully load oral implants immediately after their placement in mandibles of adequate bone density and height of carefully selected patients, it is yet unknown how predictable this approach is.*

# 7. Maintenance ver.2-2004



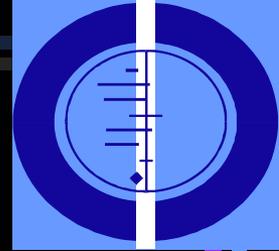
Last literature search: Feb 2004

5 RCTs with 127 participants (9 RCTs excluded)

## Conclusion:

*Adjunctive listerin mouthrinse reduces dental plaque and marginal bleeding*

## 8. Hyperbaric oxygen therapy - - 2003



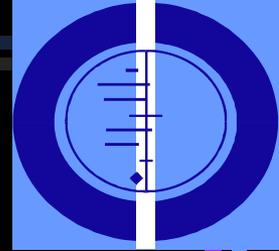
Last literature search: June 2003

0 RCT

### Conclusion

*Cannot answer whether hyperbaric oxygen (HBO) therapy decrease implant failures and complications in irradiated patients.*

# 9. Use of prophylactic antibiotics - 2003

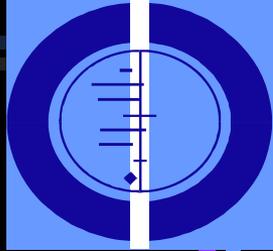


Last literature search: June 2003  
0 RCT

## Conclusion

*Cannot answer whether the use of prophylactic antibiotics decrease postoperative complications and early failures.*

# 10. Surgical techniques -2003

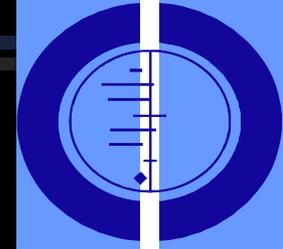


Last literature search: September 2002  
4 RCTs with 190 participants.

## Conclusion:

*We do not know whether a surgical technique is superior.*

# 11. Preprosthetic surgery vs implants - 2002



Which intervention is more effective: preprosthetic surgery and dentures vs a implant supported denture?

Last literature search: May 2002

1 RCT with 60 participants

## Conclusion:

*Patients treated with preprosthetic surgery and dentures are less satisfied than patients who received an mandibular overdenture on implants*