

# *PROSTHODONTICS*

*3<sup>rd</sup> year - October 2011*

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## Patient Management and Treatment planning

Asbjørn Jokstad  
Head, Prosthodontics

# The framework for the practice of prosthodontics

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Competency to predictably treat patients with these conditions:



# What characterizes the individuals with these conditions?



# What characterizes the individuals with these conditions?



Loss of:

Morphology

Function

Neuro-physiology mechanisms

# What characterizes the individuals with these conditions?



How do each individual cope with their condition?

Who becomes a patient?

Why?

What are their expectations for improvement?

# What characterizes the individuals with these conditions?



How do each individual cope with their condition? →

Who becomes a patient?

Why?

What are their expectations for improvement?

Socio-cultural  
determinants

# A holistic approach to patient care

1. SITUATION: What is the patient's problem?

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

*Terminal dentition*

*Extensive tissue loss*

*Congenital*



# Choice of technical solution ?



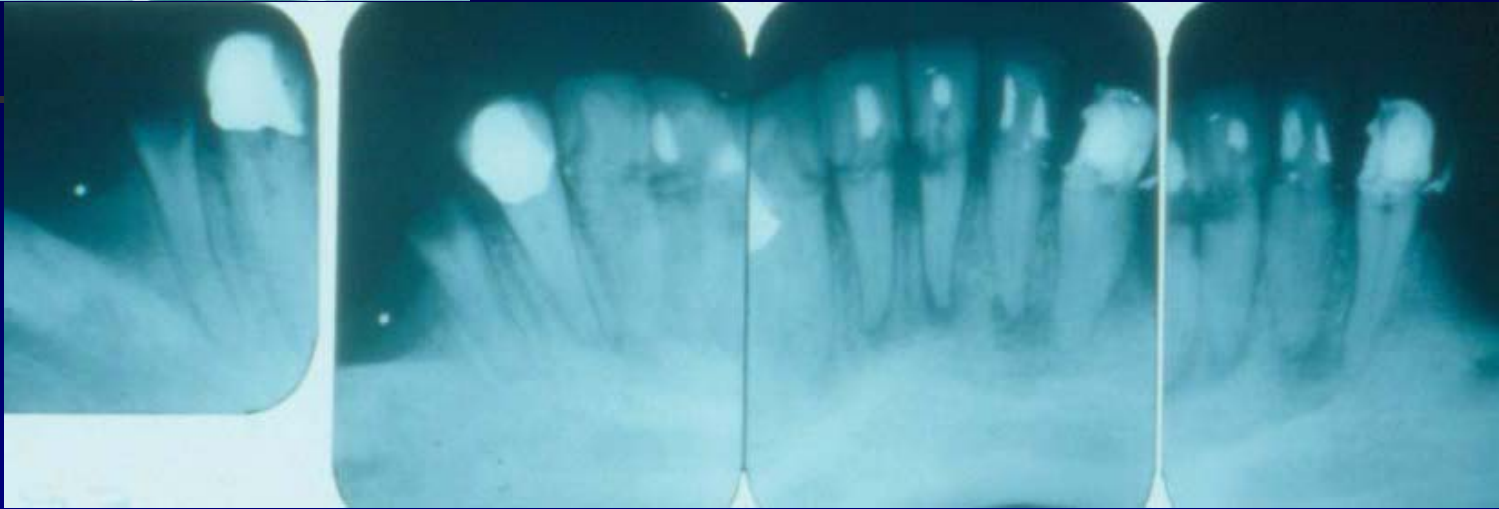
?

76 yrs  
Dry mouth  
Caries

- A. Restorative only, no prostho
- B. Cast partial denture +/- crowns
- C. Fixed bridge
- D. Implant retained prosthesis
- E. Other



# Choice of technical solution ?

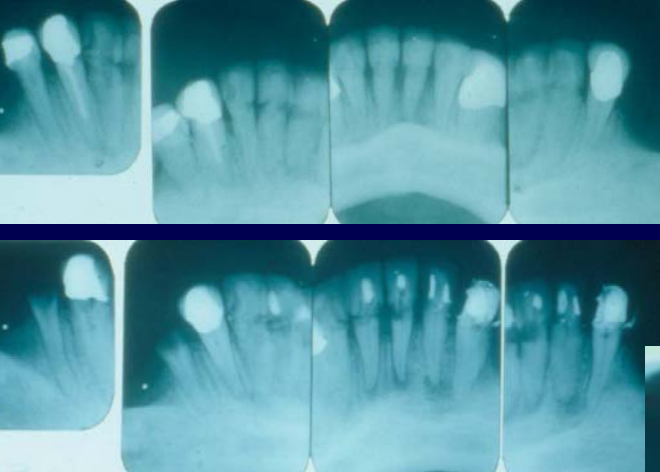


?

76 yrs + 2  
Dry mouth  
Caries

- A. Restorative only, no prostho
- B. Cast partial denture +/- crowns
- C. Fixed bridge
- D. Implant retained prosthesis
- E. Other

# Choice of technical solution ?



?

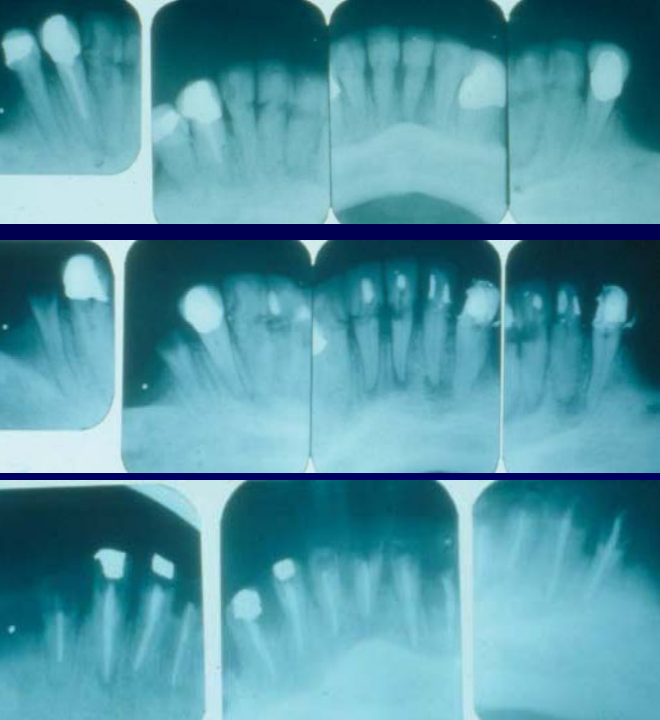
76 yrs + 2 + 1.5

Dry mouth

Caries

- A. Restorative only, no prostho
- B. Cast partial denture +/- crowns
- C. Fixed bridge
- D. Implant retained prosthesis
- E. Other

# Choice of technical solution ?



?

76 yrs + 2 + 1.5 + 1

Dry mouth

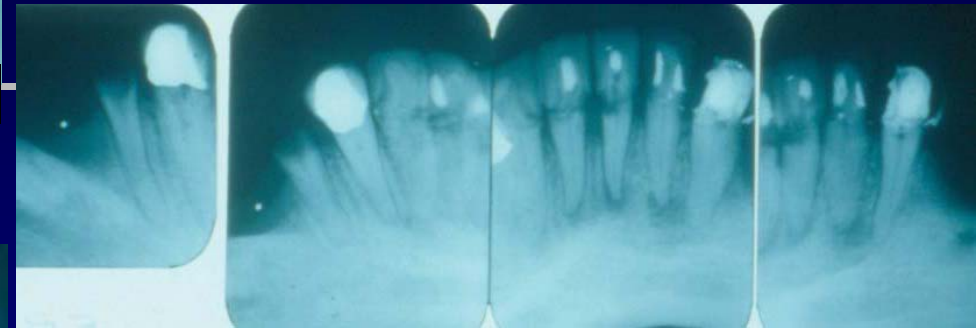
Caries

- A. Restorative only, no prostho
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**Choice of technical solution  
≠ Patient management!**



**+2 years**



**+1.5 years**



**+1 year**



**+ <1 year**



**Doing the right thing vs.  
Doing the thing right**

# A holistic approach to patient care

1. **SITUATION:** What is the patient's problem?
2. **CAUSE:** What is at the root of the patient's problem?  
Active Disease?  
Consequences of a disease?

*Wear*

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# Considerations relative to the condition

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## *Wear*



Etiology?:

Friction

External (“abrasion”)

Internal (“attrition”)

Chemical (“corrosion/erosion”)

External (Diet)

Internal (e.g. GERD)

# Considerations relative to the condition

---

*Wear*

*Single space*

Etiology?:

Trauma

Caries / Periodontitis



# Considerations relative to the condition

---

*Wear*

*Single space*

***Partial Dentate***

Etiology?:

Trauma

Caries/ Periodontitis





# Considerations relative to the condition

---

*Wear*

*Single space*

*Partial Dentate*

***Edentulous jaw***

Etiology?

Socio-cultural  
association

Disuse atrophy



# Considerations relative to the condition

---

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

***Terminal dentition***

Etiology?

Socio-cultural  
association

Caries/Periodontitis

Oral Health

Negligence



# Considerations relative to the condition

---

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

*Terminal dentition*

***Extensive tissue loss***

Etiology?:

Trauma

Cancer



# Considerations relative to the condition

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

*Terminal dentition*

*Extensive tissue loss*

***Congenital***

Oligodontia

Cleft Lip/Palate

Amelogenesis Imp.

Dentinogenesis Imp.

Osteogenesis Imp.

Ectodermal dysplasia

+++



# A holistic approach to patient care

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

*Terminal dentition*

*Extensive tissue loss*

*Congenital*

1. **SITUATION:** What is the patient's problem?
2. **CAUSE:** What is at the root of the patient's problem?  
Active Disease?  
Consequences of a disease?
3. **PROCESS:** How can the patient's problem be solved?



# PROCESS: Most common prosthetic solutions

*Wear*



Tissue-retained  
Tooth / teeth-



# PROCESS: Most common prosthetic solutions

*Wear*  
**Single**

Tissue-retained  
Tooth / teeth-



Implant-retained



*Inlay-bridge*  
*Gold Veneer*



# PROCESS: Most common prosthetic solutions

*Wear  
Single space*

***Partial Dentate***



Tissue-retained

Tooth / teeth-

Mucosa-

Tooth/teeth + mucosa-

Implant-retained

(Implant+tooth-)





# PROCESS: Most common prosthetic solutions

---

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*



Tissue-retained



Mucosa-



Implant-retained



Implant+mucosa-



# PROCESS: Most common prosthetic solutions

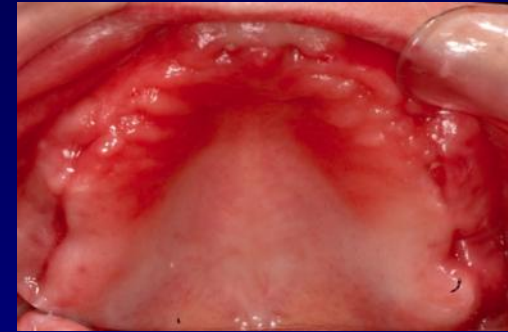
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*Wear*  
*Single space*  
*Partial Dentate*  
*Edentulous jaw*  
***Terminal***  
***dentition***

Tissue-retained

Mucosa-

(Implant-retained  
Implant+mucosa)



# PROCESS: Most common prosthetic solutions

---

*Wear*

*Single space*

*Partial Dentate*

*Edentulous jaw*

*Terminal dentition*

***Extensive  
tissue loss***



Tissue-retained

Tooth / teeth-

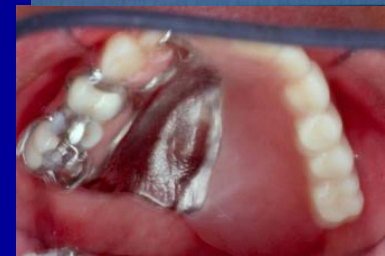
Mucosa-

Tooth/teeth + mucosa-

Implant-retained

Implant+tissue-

(Implant+tooth-)



# PROCESS: Most common prosthetic solutions

*Wear*  
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***Congenital***



Tissue-retained

Tooth / teeth-

Mucosa-

Tooth/teeth + mucosa-

Implant-retained

Implant+tissue-

(Implant+tooth-)



# A holistic approach to patient care

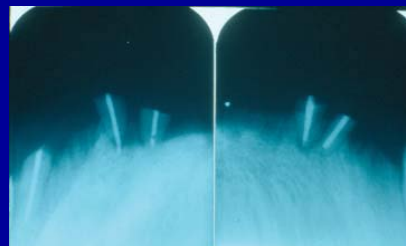
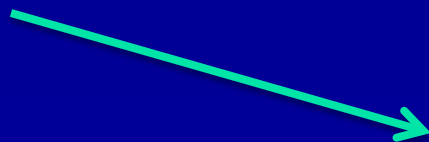
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Consequences of a disease?
3. **PROCESS:** How can the patient's problem be solved?
4. **RESULT:** To what extent has the patient's problem been solved?



# A holistic approach to patient care

Educating the patient how to avoid future oral disease (and treatment) is a component in all patient care.



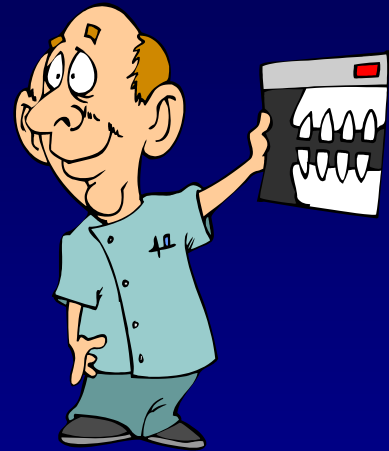
# A holistic approach to patient care

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Active Disease?  
Consequences of a disease?
3. **PROCESS:** How can the patient's problem be solved?
4. **RESULT:** To what extent has the patient's problem been solved?
5. **PROGNOSIS:** How can the patient prevent future problems?



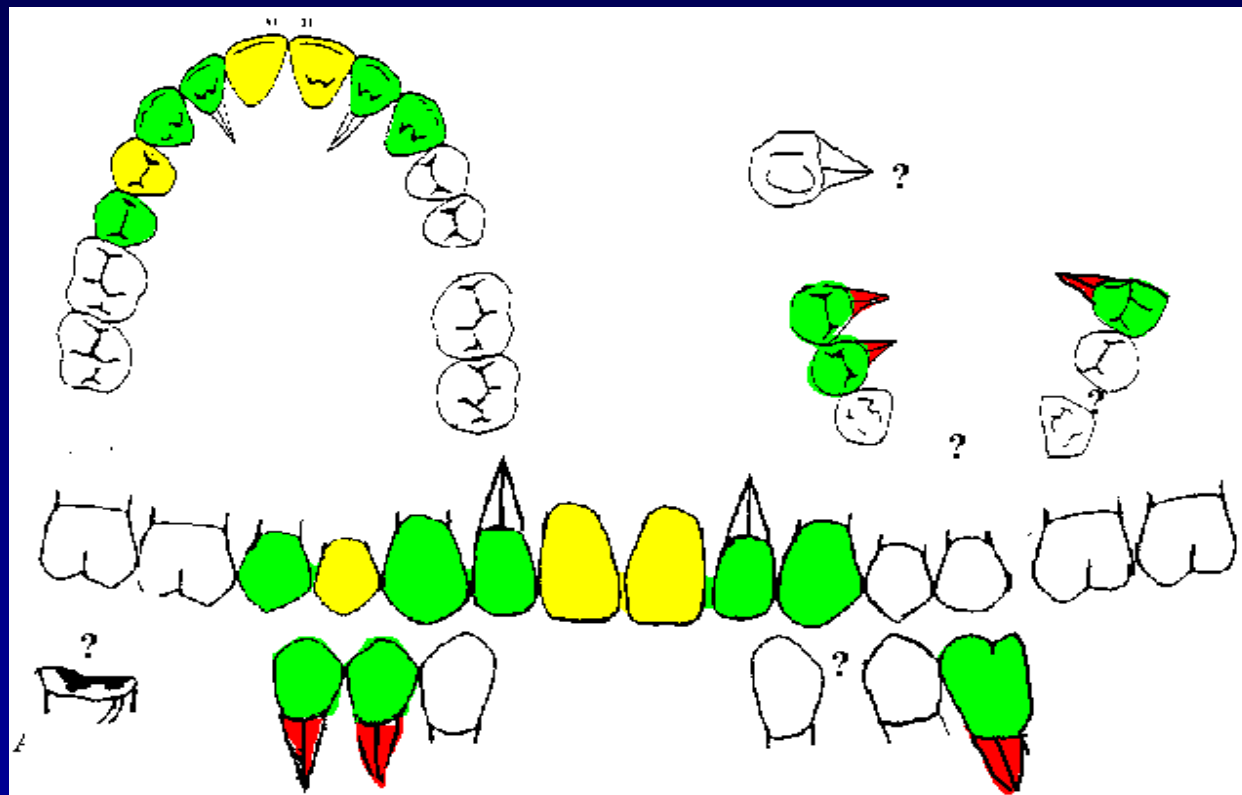
How to proceed for  
determining the  
optimal treatment  
for a patient with  
complex restorative  
needs?







# 1. Remove pathology:



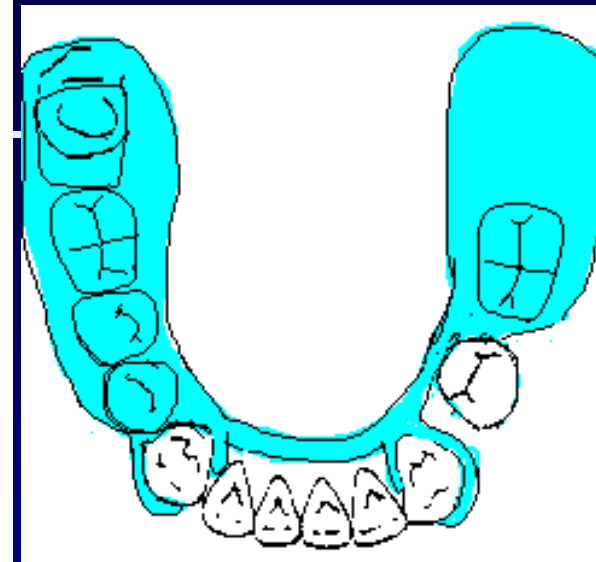
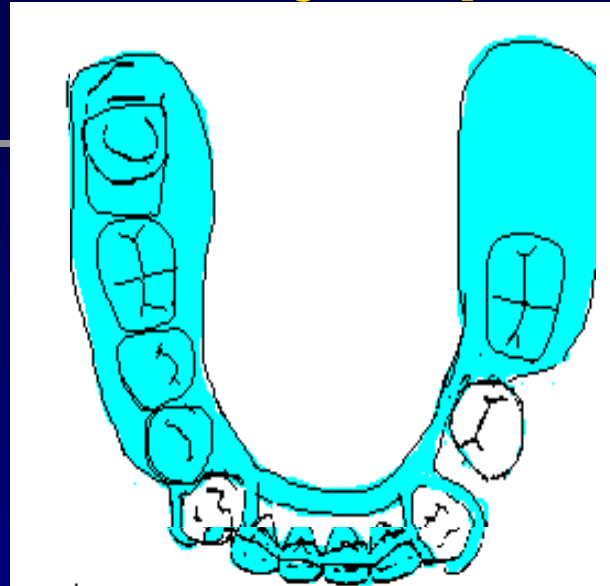
*Choice of restorative material? -retrograde endodontics?- extractions? - furcation surgery? - root separation? - orthodontics? -occlusal correction? ....*

## 2. Choice of technical solution ?



- A. Restorative only, no prosthodontics
- B. Cast partial denture
- C. Crowns and partial denture
- D. Fixed bridge
- E. implant retained prosthesis

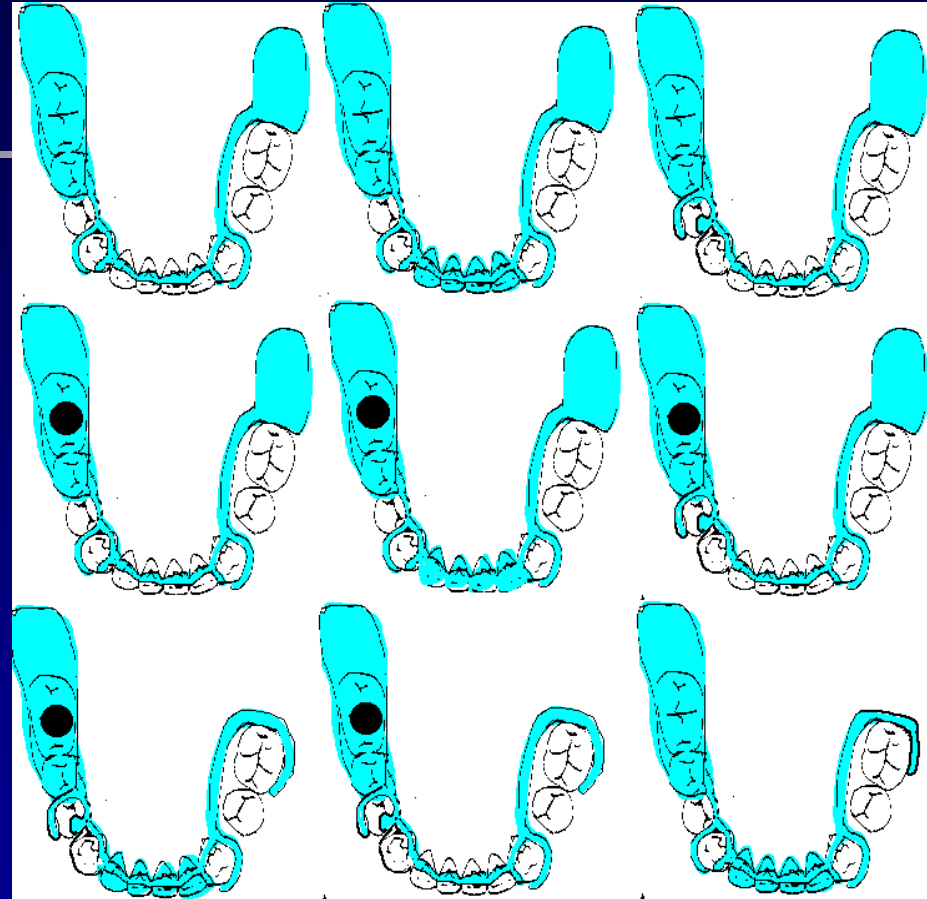
# Acrylic partial denture



## Clinical knowledge

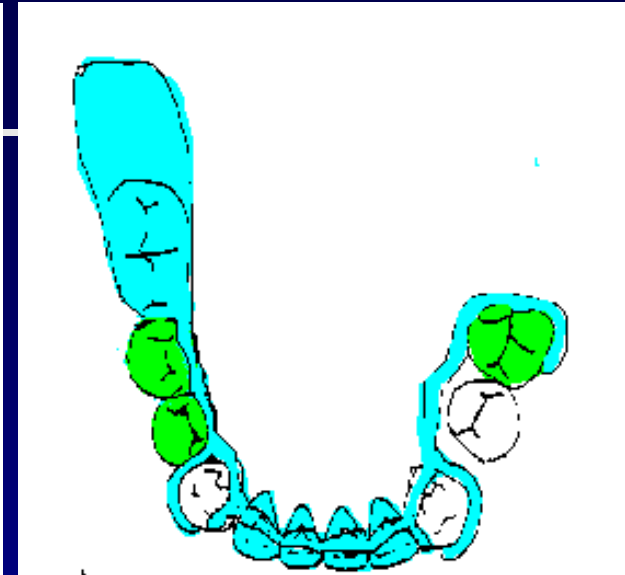
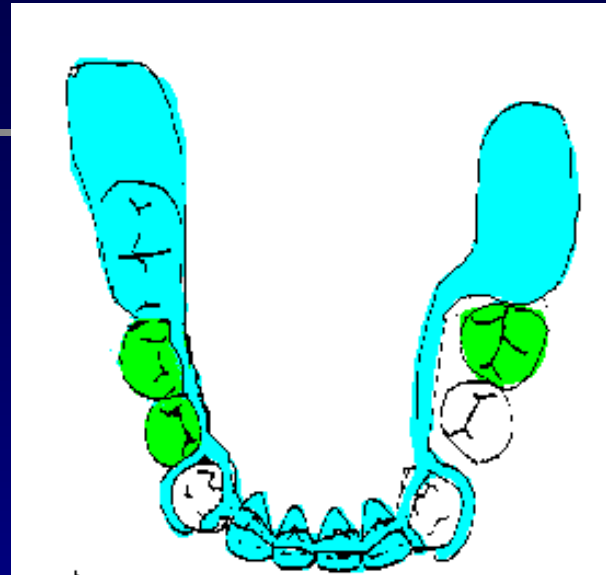
- n Prosthesis design
- n Prognosis

# Cast partial denture



Clinical knowledge  
Prosthesis design  
Prognosis  
Retention

# Crowns + cast partial denture



Additional clinical knowledge

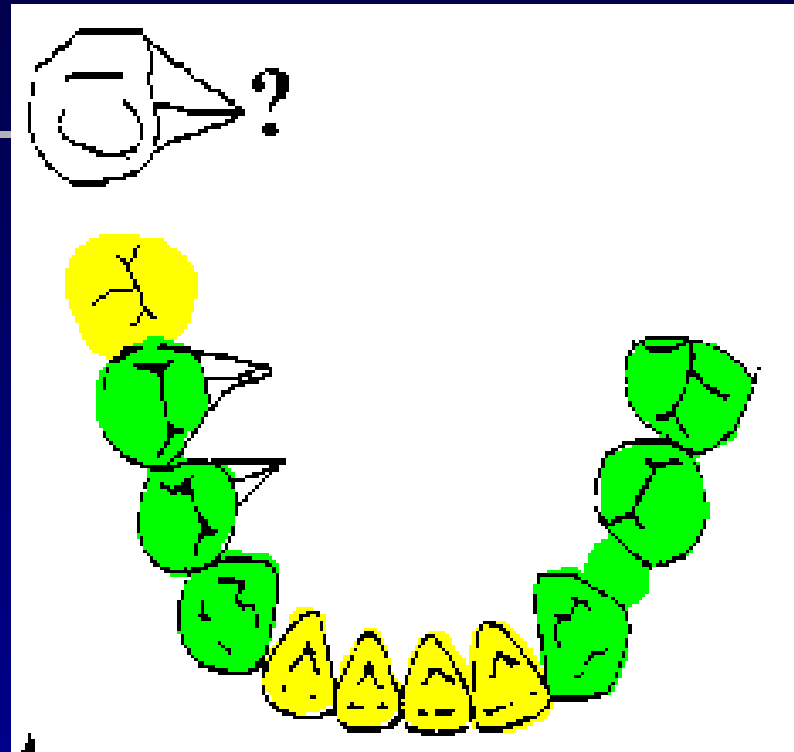
36 extraction or crown?

Soldered 44 + 45?

Milled crowns?

Intra- or extracoronal attachments?

# Fixed bridge



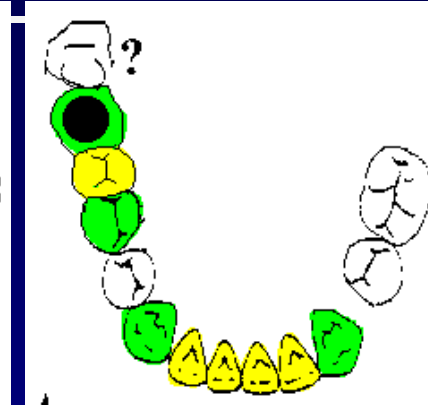
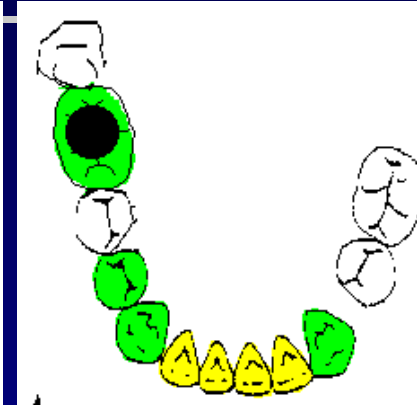
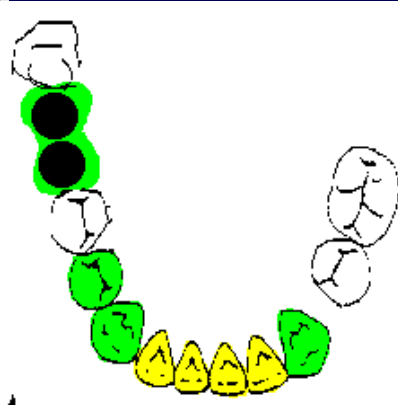
## Clinical knowledge

Conventional alloy, titanium-ceramic  
or gold acrylic?

Zn-phosphate, GIC or resin cement?

Bridge extension 46? 46+47 ?

# Implant retained prosthesis



## Clinical knowledge

One / two implants?

Wide collar - standard diameter?

Splinted - non-splinted FPD?

Cement / screw-retained ?

Nobelbiocare, AstraTech, 3i, Endopore,  
Straumann, Friadent...?

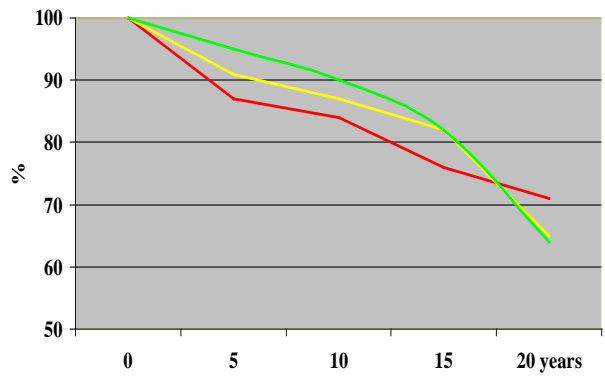


# Treatment planning

Overwhelming task  
to appraise and  
present information  
for consent without  
first communicating  
with the patient!



# Treatment decision considerations



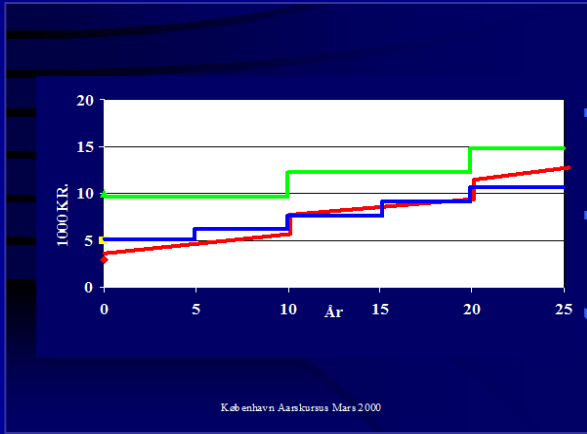
Independent variables	Bi-variate odds ratios	Bivariate significance	95% Confidence intervals bivariate odds ratios	Multi-variate odds ratios	Multivariate significance	95% Confidence intervals for multivariate odds ratios
<b>Age group</b>						
20-30	-	-	-	-	-	-
30-40	2.32	**	1.15 - 3.13	2.52	**	1.35 - 3.33
+40	2.63	***	1.43 - 3.08	2.63	***	1.83 - 3.8
<b>Gender</b>						
Male	-	-	-	-	-	-
Female	2.42	**	1.61 - 2.79	2.12	**	1.91 - 2.9
<b>Material</b>						
Amalgam	-	-	-	-	-	-
Composites	1.12	NS	0.13 - 1.56	1.42	NS	1.13 - 1.96
Glass ionom.	3.12	***	2.52 - 4.34	5.65	**	4.67 - 7.23
<b>Dentists</b>						
#1	-	-	-	-	-	-
#2	1.34	NS	0.35 - 1.61	1.04	NS	1.35 - 2.01
<b>Location</b>						
Mandible	-	-	-	-	-	-
Maxilla	1.55	*	1.17 - 2.04	1.15	*	1.57 - 2.14



Dentist:patient relationship  
Two-way communication



Longevity  
Risk factors  
Adverse events  
Accumulated costs  
Quality of Life



Kob enhavn Aarskursus Mars 2000

**Correct  
Prosthodontic  
Treatment  
Planning**

**=**

**Evidence-based  
practice**

