

# Indications: Composite

- Aesthetically prominent areas of posterior teeth
- Small - moderate classes I. that can be well isolated
- Good level of oral hygiene is necessary

# Contraindications: Composite

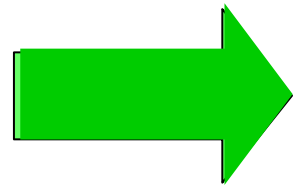
- Moderate to large restorations
- Restorations that have heavy occlusal contacts
- Restorations that cannot be well isolated
- Restorations that extend onto the root surface (subgingival – margin relocation or lengthening of the crown is necessary)
- Abutment teeth for removable partial dentures

# Composite - possibilities

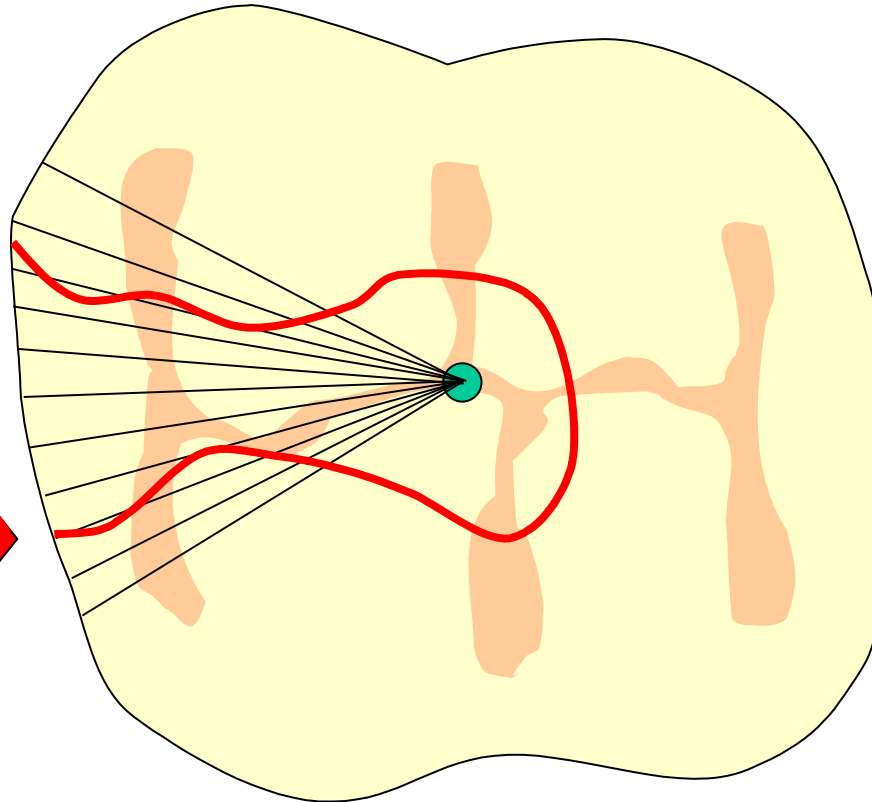
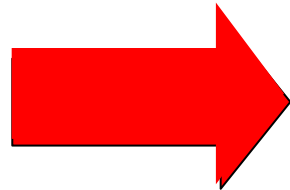
- Conventional cavity (occlusal and proximal cavity)
- Adhesive slot
- Tunnel preparation
- Cusp replacement – direct, indirect.

# Interproximal borders

Composite

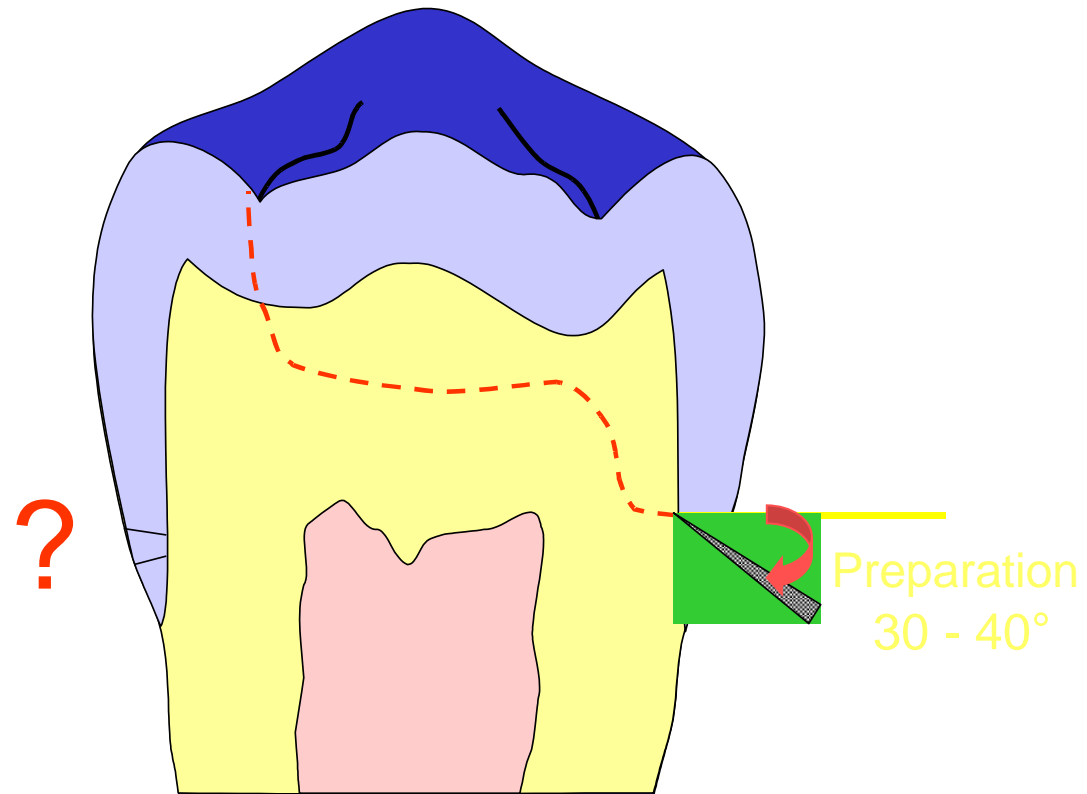


Amalgam



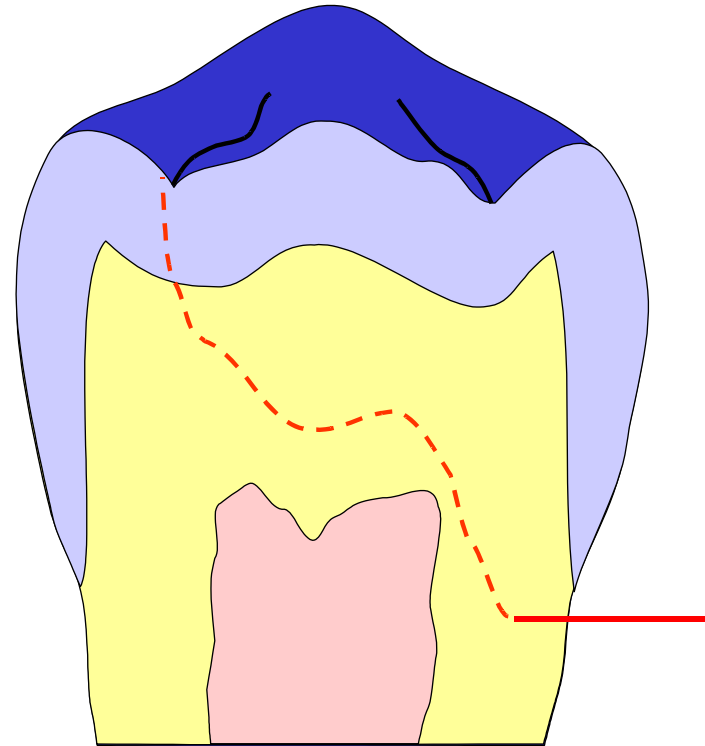
# Cervical borders

In enamel



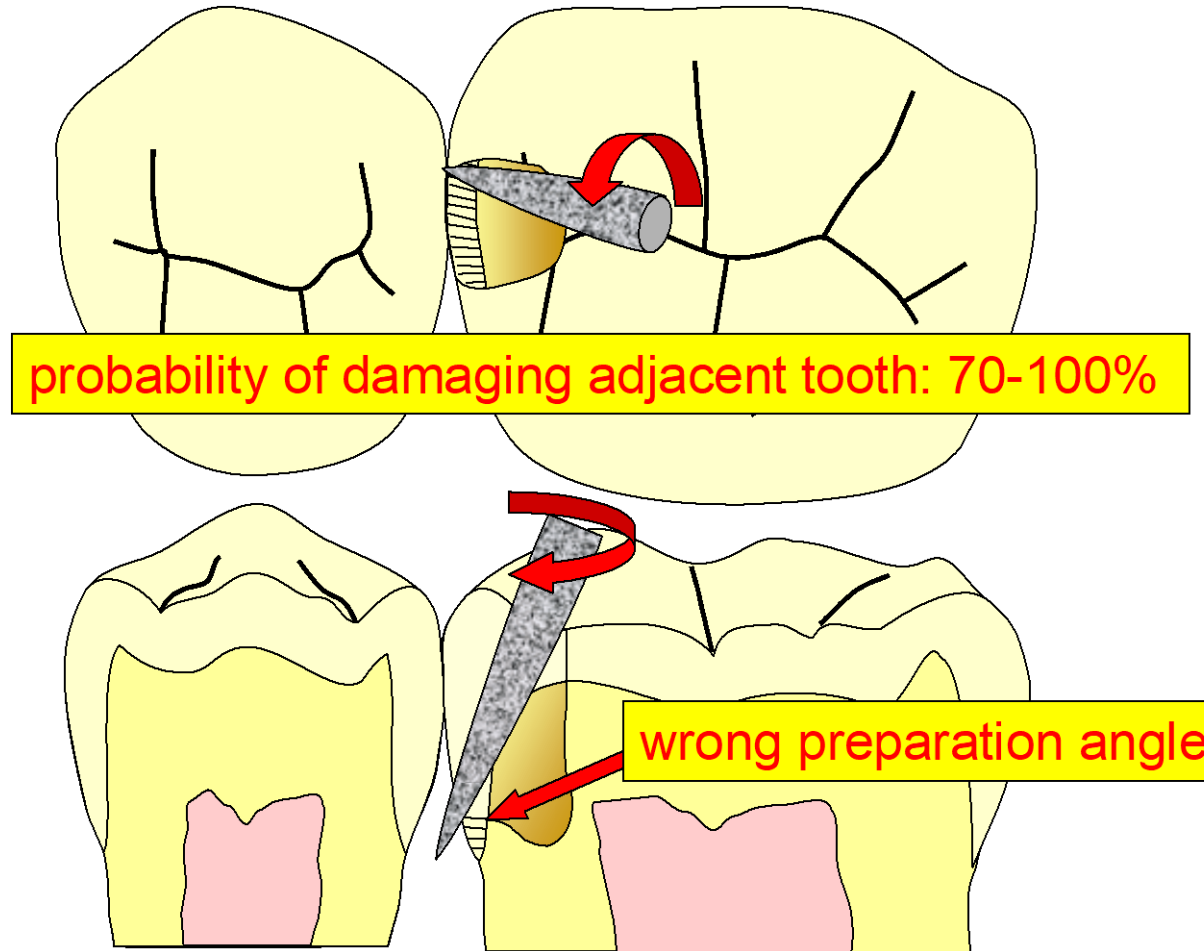
# Cervical borders

In dentin



**No bevel**

# Preparation technique



# Oscillating instruments





# Class II. and contact point

- Matrix band + matrix retainer
- Metal band (in primary teeth)

Without matrix retainer

Plastic band (polyester – e.g. Lucifix matrix)

Sectional matrices with separator



# Matrix band and matrix retainer

Contact point  
Contact area











# Composite filling class II. Contact point

































# Sectional matrices

- Sectional matrices with separator  
Good adaptation  
Separation using wedge and separator



Sectional pre-contoured metal matrix system provided the highest contact tightness with the highest length of contact arc. Restorations with circumferential pre-contoured metal matrix system provided higher LCA than those with circumferential straight metal matrix with Tofflemire retainer and circumferential pre-contoured transparent matrix system“



*Kampouropoulos D, Paximada C, Loukidis M, Kakaboura A. The influence of matrix type on the proximal contact in class II resin composite restorations. Oper Dent 2010; 35; 454-462*

Use of the sectional matrix system in two-surface Class II cavities resulted in statistically significantly tighter proximal contacts than the use of the circumferential matrix system.

For the three-surface no statistically significant differences in contact tightness were found between the different matrix systems.“

*Wirsching E, Loomans B A, Klaiber B, Dörfer C E. Influence of matrix systems on proximal contact tightness of 2-and 3-surface posterior composite restorations in vivo. J Dent 2011; 39: 386–390*







# Step 1: Pre - wedging

The wedge is inserted before preparation:

Compression of gingiva

Separation of teeth

Together with the matrix protection of damage of neighbouring tooth



Matrix for the filling can be inserted easier.

## Step 2: preparation

- Preparation with the protection of neighbouring tooth using the metal strip or matrix.



# Step 3: adaptation of wedge, matrix and separator

- The wedge can be new or the same as previous, inserted from oral or vestibular side
- The matrix is 0,5 mm below the gingival wall
- Separator separates teeth

# Step 4 Making filling



# Kompozitní výplň II. třídy



# Kompozitní výplň II. třídy



## Kompozitní výplň II. třídy

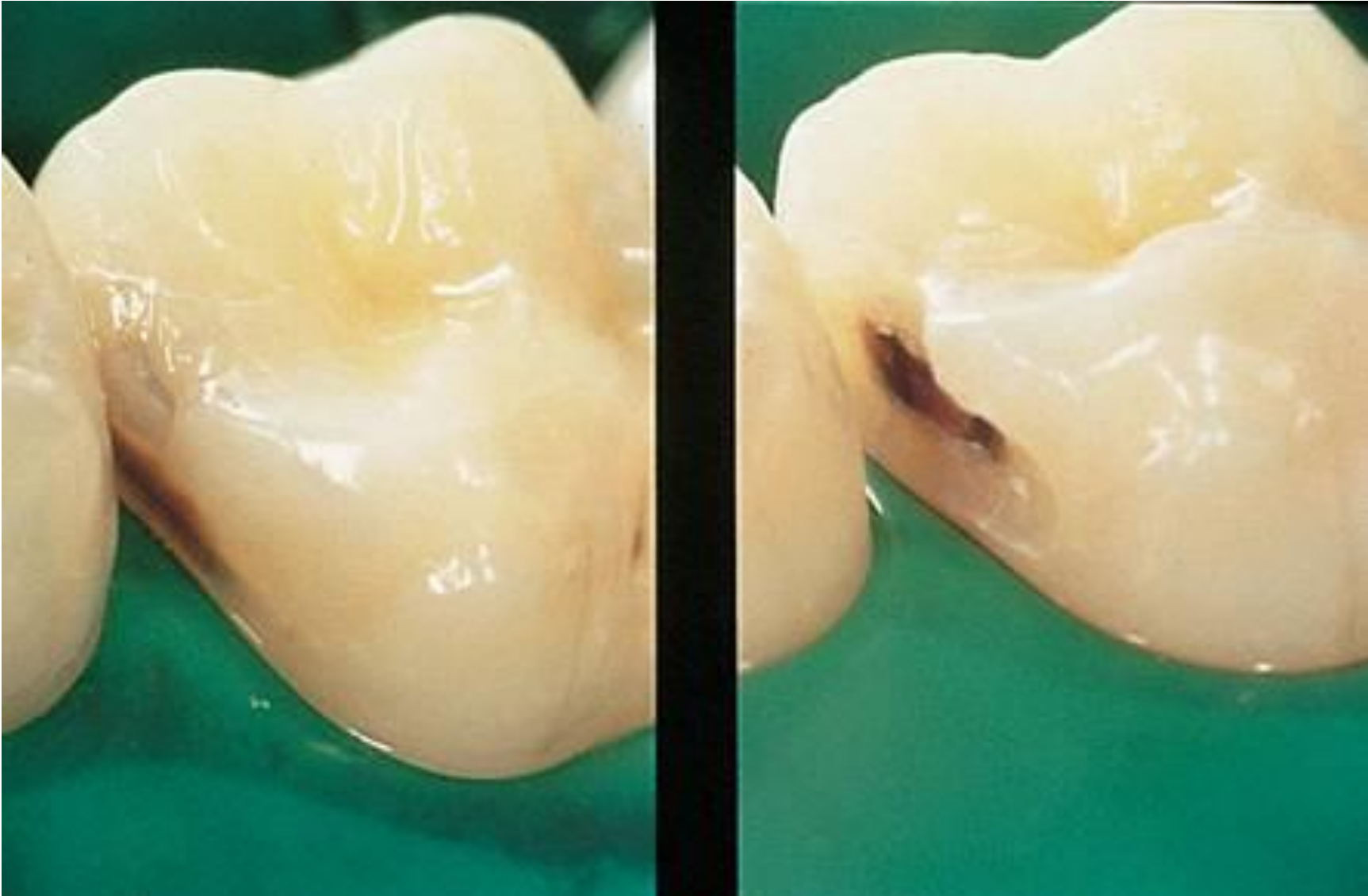




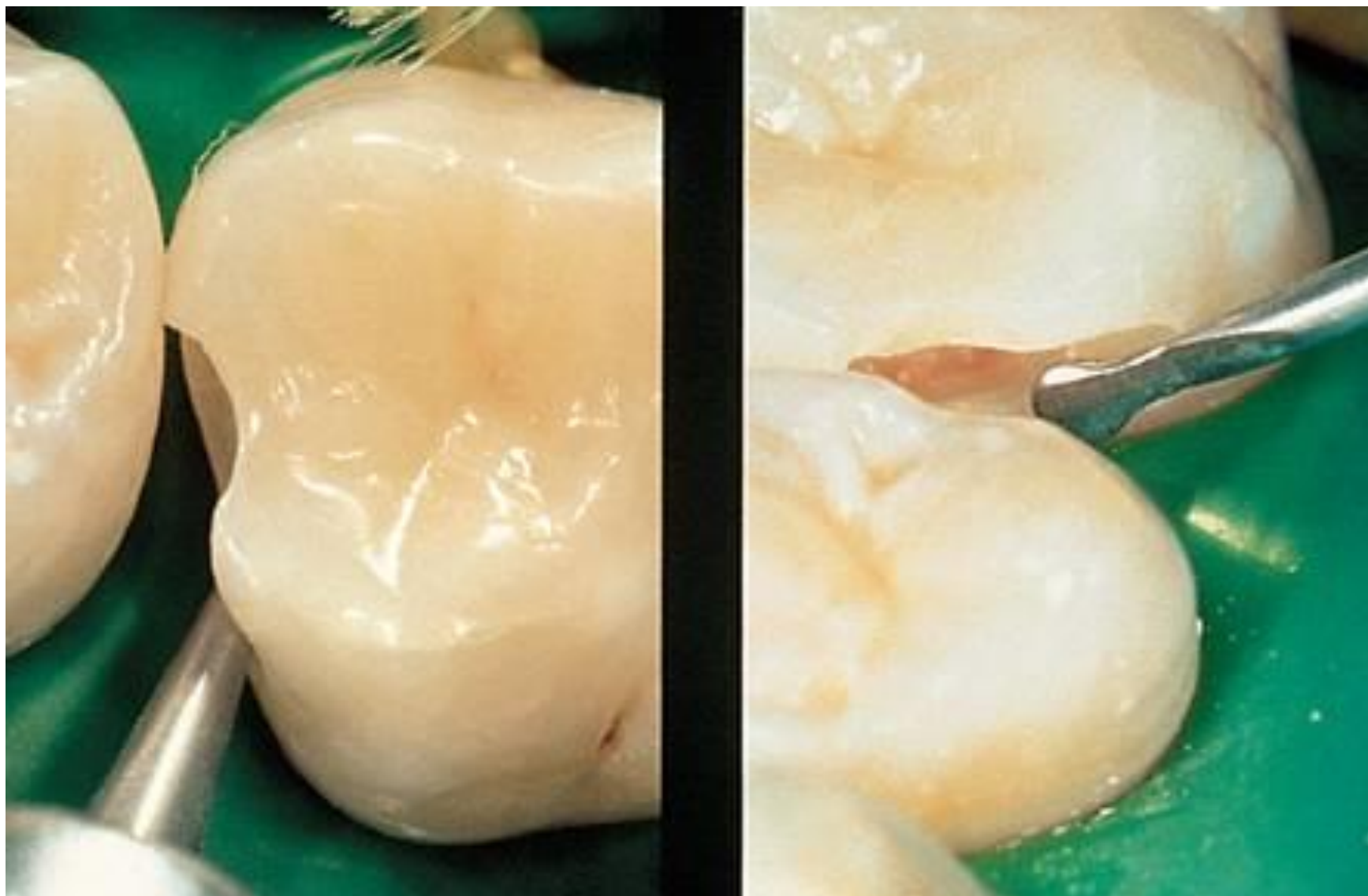
# Adhezivní slotová preparace

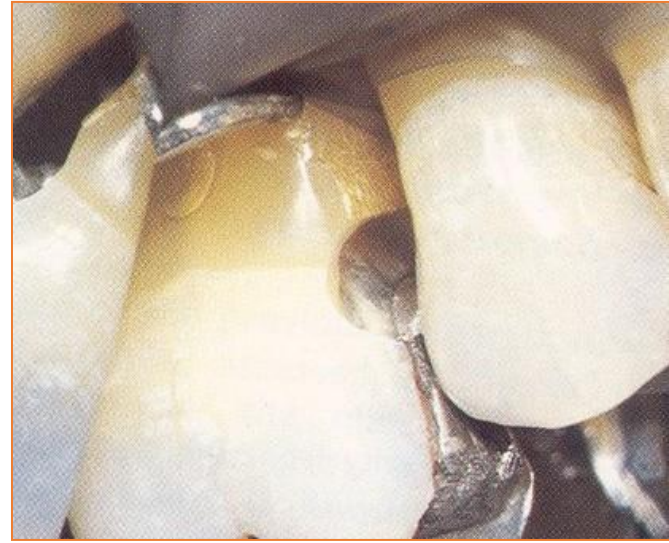


# Approximal Caries

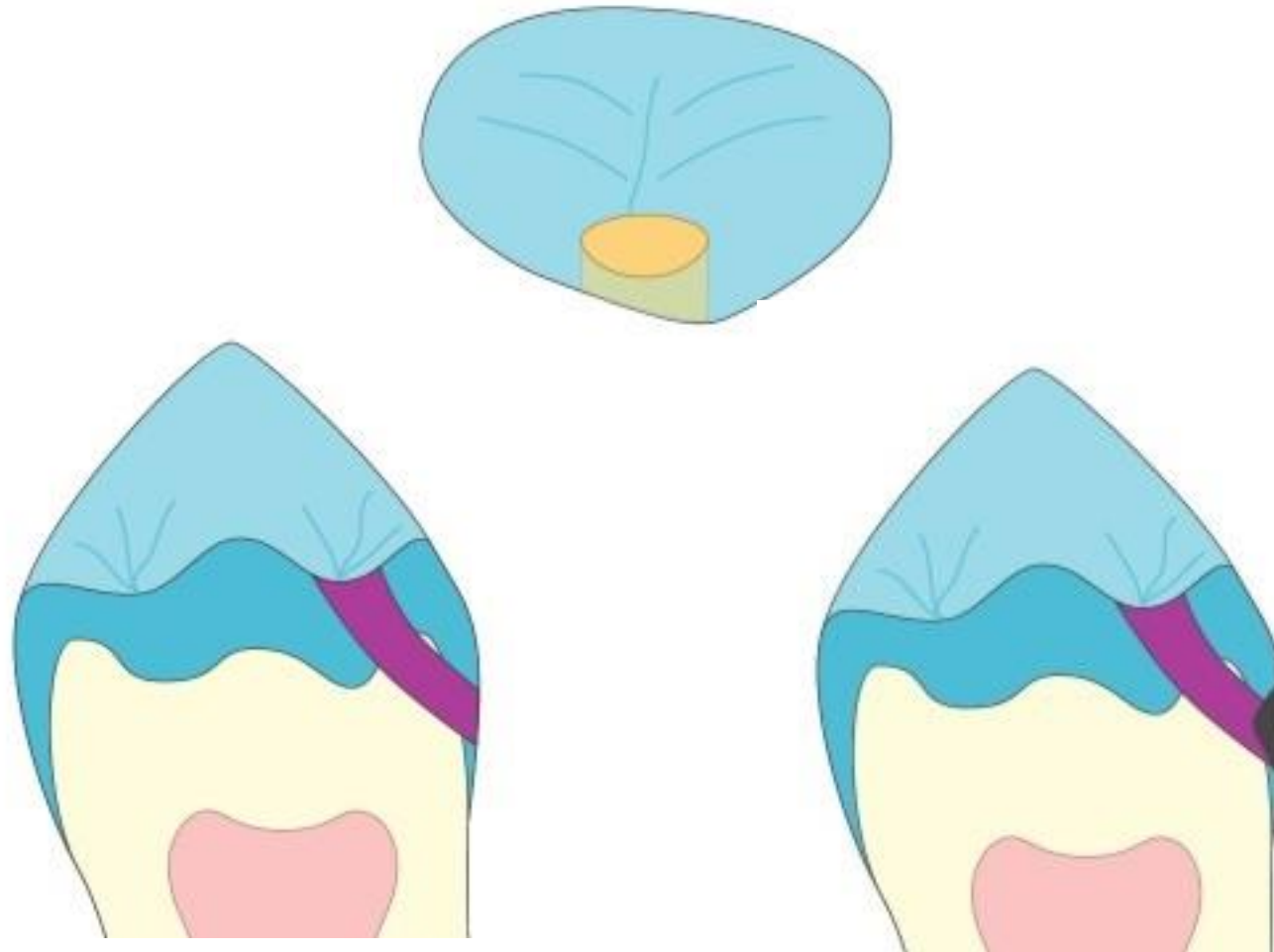


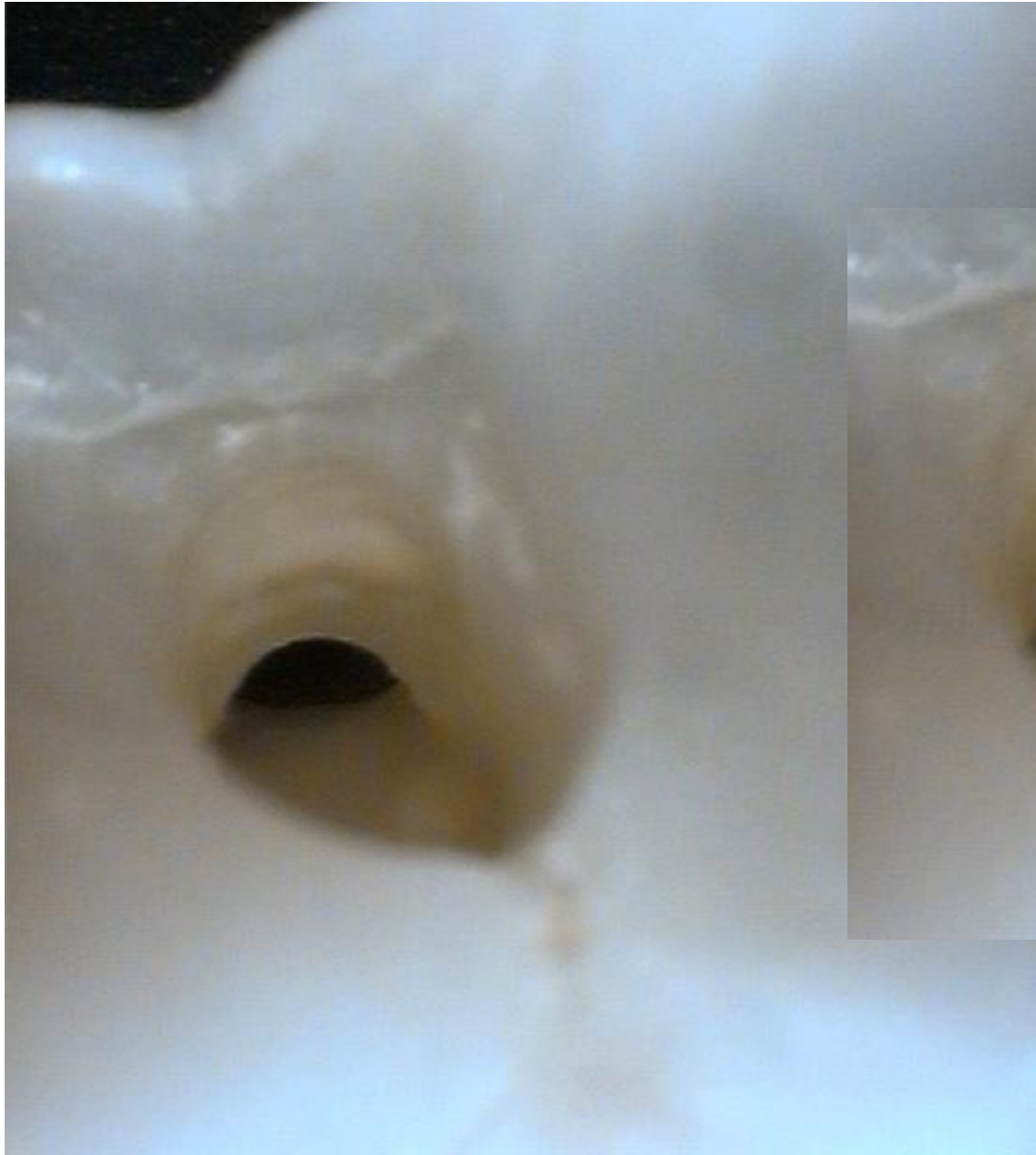
# Approximal Caries

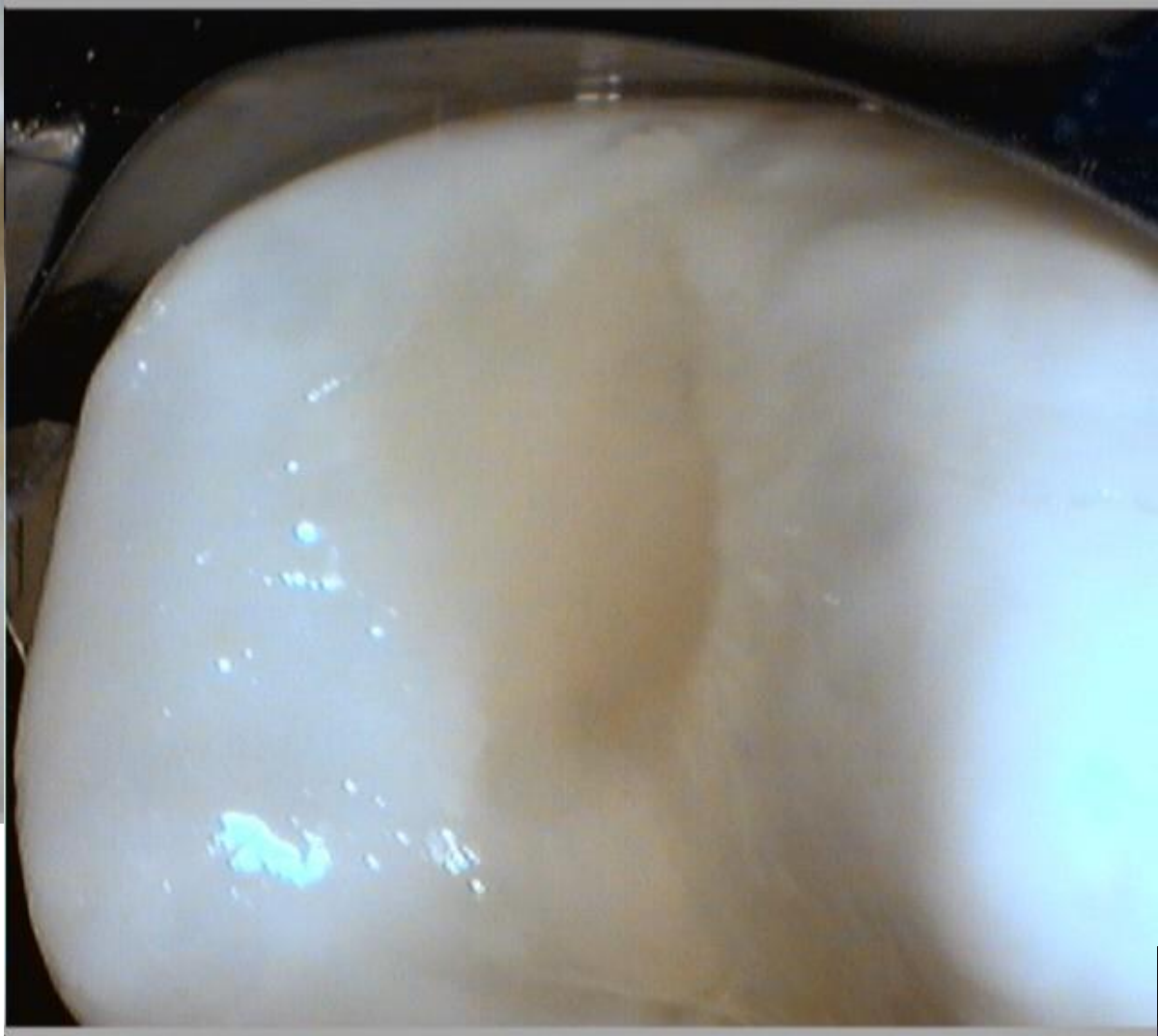




# Tunnel preparation







Success?



Low caries risk  
Special small instruments  
Magnification  
BW post op