

The slide features a decorative arrangement of six circles. Three circles are arranged in a horizontal row at the top, and three are arranged in a horizontal row at the bottom. The top row consists of one white circle with a light purple outline on the left, and two solid light purple circles on the right. The bottom row consists of two solid light purple circles on the left, and one white circle with a light purple outline on the right. The text is centered over these circles.

Iatrogenic damage

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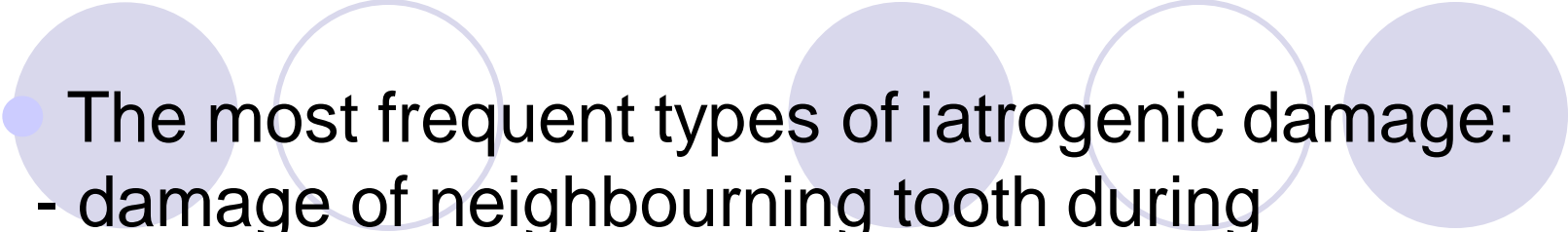
Iatrogenic damage in dentistry

- Iatrogenic damage is an accidental damage to patient caused during treatment procedures, most frequently as a result of non lege artis approach
- Iatrogenic damage has to be differentiated from complications which can occur after treatment



Causes of iatrogenic damage

- Inaccurate surgical intervention, access or inappropriate behavior (e.g. non sterile instruments, procedures)
- false medicament prescription or application
- hurry, stress
- incorrect diagnosis
- burn-out syndrom

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- The most frequent types of iatrogenic damage:
 - damage of neighbouring tooth during preparation
 - extraction of a non indicated tooth
 - injury of cheeks, tongue by the bur
 - swelling of soft tissues after penetration of NaOCl into the periodontal space, sinus maxillaris on endodontic treatment
 - emphysema after root canal irrigation using hydrogen peroxid
 - etching with chemicals during endodontic treatment
 - cutting of neighbouring tooth root on surgical extraction

How to prevent the iatrogenic damage of patients

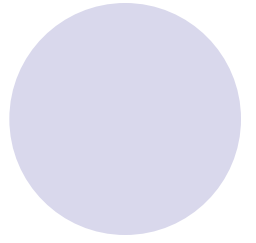
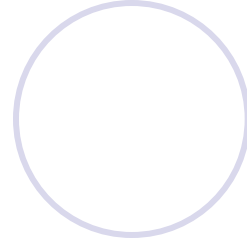
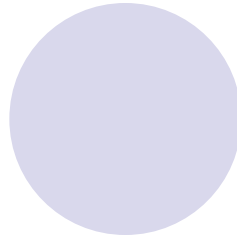
- to avoid rush work under stress
- perfect and careful medical history
- to respect rules of work safety
- indicated therapy
- checking of all medicaments before their application (syringe, needle, medicament, solution, anesthetics)
- protection of neighbouring teeth



Damage of the neighbouring tooth



Common mistakes



Amalgam filling

Class I

Extension for prevention

Entire fissure complex not involved

Marginal ridge not weakened

Cusps – fissure – extension of cavo-
surface margin

Sharp edges

Retention

Box- like cavity

Parallel walls with undercuts

Convergent occlusally

Mistakes

Dish-like preparation

Bevel for amalgam

No undercuts

Resistance

A. Tooth

has to remain strong enough
cusp - inlay
plastic filling

B. Filling

2mm
Too shallow

Floor of the cavity

Must not be of the same depth-
protection of the dental pulp
Base

Composite filling



Class I

1. To remove carious dentine
2. Retention
 - A, Extension for prevention
 - B, Resistance-2mm depth
3. Retention
 - Micromechanical – etching
 - Dentinal adhesives - hybride layer

Class II cavity

Mistakes

1. Extension for prevention
Tangent
American rule
Small extension
Small resistance of the tooth
Sulcus x ep.attachment
Predilection for caries
Injury of the epithelial attachment

Retention

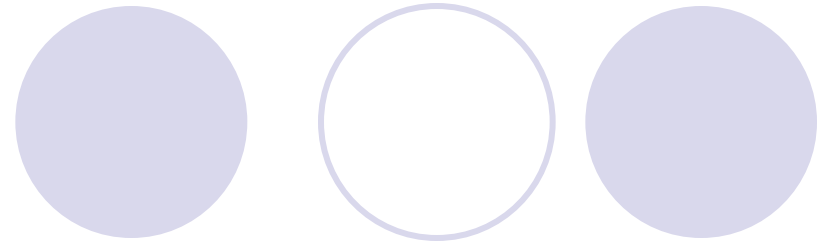
- Too wide isthmus
- Too narrow isthmus
- Too short dove tail preparation
- axial extension
- Sharp edges
- gingival wall – 90°

Resistance-filling

Resistance-tooth

- No undermined enamel
- No over extension
- Cusp protection x replacement

Class II cavity



Marginal ridge

A. Mistakes during cavity preparation

1. Wrong indication for instruments

- air turbine machine
- micro motor
- burs, discs

2. Insufficient pulp protection (heat during preparation)

3. Unfinished preparation

- Micro motor
- Hand instruments

B. Insufficient dry field (rubber dam, rolls)

C. Wrong choice, application of matrices

Wedging, point of contact

D. Wrong mixing (preparation) of filling materials

Mistakes during cavity filling

E. Occlusion, articulation

F. Finishing, polishing