Dental instruments

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Fogorvostudományi kar
Propedeutikai Tanszék
Hand instruments design

- **Handle**
  - portion of the instrument where the operator grasps
- **Shank**
  - part of the instrument that attaches the working end to the handle
- **Working end**
  - portion of the instrument with a specific function
1. Dental mirror

- part of the standard dental instruments
- used to view areas of oral cavity, *reflect light* on dark surfaces, and *retract* lips, and so forth for better visibility
2. Dental forceps (Landgraf)

- part of the standard dental instruments
- used to carry objects such as cotton pellets or rolls to and from the mouth
- also called operating pliers or college pliers
3. Dental Probe

- part of the standard dental instruments
- used to examine the teeth (hard tissues), detect carious lesions, and note other oral conditions
4. Metal spatula for mixing cement

- used by dental assistants
- used for mixing powder + liquid dental materials (such as glassionomer cement)
- 2 ended instrument
5. Black excavator

- 2 ended instrument
- has 2 roles:
  - removing carious tooth structures such as softened dentin
    - for this function we use this instrument without heating up!
  - cutting root-canal filling material (guttapercha)
    - for this function we heat up the instrument
6. Vajna’s amalgam condenser

- dental filling instrument (2 ended)
- used to make amalgam fillings
  - can be used for condensation and forming the filling
7. Flaggs - Flat-banded Instrument

- dental filling instrument (2 ended)
- can be used for amalgam-, composite-, glassionomer cement- and temporary fillings
- used for:
  - delivering the filling material into the cavity
  - forming the filling (such as fissures)
8. Williams - Williams’ amalgam condenser

- dental filling instrument (2 ended)
- can be used for amalgam-, composite- and cement fillings
9. Combined condenser

- dental filling instrument (2 ended)
- can be used for composite fillings
10. Amalgam mortar and pestle

• used for mixing amalgam
11. Amalgam carrier

- used for carrying and delivering the mixed amalgam into the cavity
12. Full-circle matrix system: retainer and band (left)
13. Semi-circle matrix system: retainer and band (right)

• Matrix systems are used for making fillings:
  • Help to build back the anatoform contact point

• Semi-circle matrix system:
  • Used when 1 proximal part is prepared of the tooth

• Full-circle matrix system:
  • Used when 2 proximal parts are prepared of the tooth
14. Toothbrush

- technical instrument:
  - used for cleaning surfaces that we work on (for example wax)
15. Wax knife

- technical 2 ended instrument: sharp and spoon-formed ends
- used for cutting the wax
- can be hold into flames
16. Plaster knife

- technical instrument
- used for cutting
  - for example forming gypsum cast
- cannot be hold into flames!
17. Plaster mixing spatula and mixing bowl

• can be used by dental assistants and dental technicians

• used:
  • for mixing gypsum
  • for mixing impression materials (alginate)
18. Crown scissors

- technical instrument
- used for cutting
19. Technical plier

- technical instrument
- has straight end (no angulation)
- used to carry technical objects, can be hold into flames
20. Combinet forceps

- technical device
- used for cutting and forming small metal pieces
21. Inlay carver

• 2 ended technical instrument
• can be hold into flames
• used to form wax pattern
22. Contra-angle handpiece

- normal handpiece (blue sign at the end)
- 4.000-40.000 rpm speed
- can be used with micromotor (voltage)
23. Turbine

- another engine driven handpiece (air)
- 450,000-500,000 rpm speed
24. Viasz modelláló - Wax modelling

• 2 ended technical instrument
• cannot be hold into flames!
• used for cold wax modelling
25. Viasz mintázó - Wax modelling

- 2 ended technical instrument
- can be hold into flames
- used for building up wax pattern