Mirror, Fulcrums, and Instrument Handle Positioning

Presented by:
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Objectives

- Identify and describe 3 common types of dental mirrors
- Define and demonstrate 4 uses of dental mirrors
- Explain the difference between a finger rest and a fulcrum
- Describe the characteristics of intraoral and extraoral fulcrums
- Review instrument handle positions for each area of the mouth
- Maintain neutral positioning during all aspects of instrumentation
Dental Mirror

Three types:

- Front surface
- Concave
- Plane or Flat surface
What Are Dental Mirror Uses?

- Retraction
- Indirect vision
- Indirect illumination
- Transillumination
Mirror Insertion

- Enter from straight over patient chest
- Reflecting surface always up
- Move between arches into cheek
- Roll handle and retract – “loosen” cheek
- Establish rest
Be Careful NOT to:

- Hit teeth
- Pull against corner of mouth
- Rest mirror head on gingival tissues or bone

OUCH – This hurts!!
Techniques

- Reflecting surface always towards teeth
  - Double sided mirrors you will LOVE these!

- Direct vision whenever possible

- Indirect vision *Most important!

- Defog
This is CRITICAL. What is it?

- Wrist aligned with forearm
- “Pinky” side of palm rotated slightly downward
- Fingers held with light pressure and rounded
- Prevents musculoskeletal injuries
- Just as important for NON-DOMINANT hand
Neutral Hand Position

- Index finger and thumb held in a rounded shape
- Wrist aligned with lower arm
- Ring finger advanced
- Light pressure against handle
- Palm open and relaxed
Mirror Rest

- Tooth or area where hand or fulcrum finger is placed to give stability
Fulcrum

- Intraoral or Extraoral
- Stability, support, balance
- Enables hand and instrument to move as unit
- Precise control of instrument stroke
- Decrease likelihood of injury to patient or clinician if patient moves suddenly
Extraoral vs. Intraoral
Excess Pressure on Fulcrum

- Decreased stability and control
- Over-tightened grasp
  - Operator fatigue in fingers, hand
- Patient fatigue
  - TMJ, muscles
Compressed Air

- What are the benefits of using compressed air during an oral examination?

- What grasp is used with the air/water syringe????
Compressed Air

What precautions do you need to take when using compressed air in the oral cavity?
Instrument Handle Positions

- K1, K2, K3, “V”
- Palm-up vs. Palm-down (knuckles up/down)
- Mandibular anteriors – handle extends upward
- Maxillary anteriors – handle extends downward
- Mandibular and maxillary posteriors – handle/knuckle placement is important - Review Nield Text
Operator Positioning

- Neck
- Back
- Shoulders
- Legs
- Feet
- Upper arm
- Forearm
- Wrist
- Hand
- Fingers

*Positioning is very important in *everything* you!*
References