Isolation and pretreatment considerations

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Outline:

- Isolation methods
- The rubber dam
  - Advantages
  - Components
  - Placement techniques
- Pre-treatment considerations

Methods of isolation:

i- absorption - cotton rolls, gauze, retraction cord, etc

ii- evacuation - saliva ejectors, high volume suction, etc

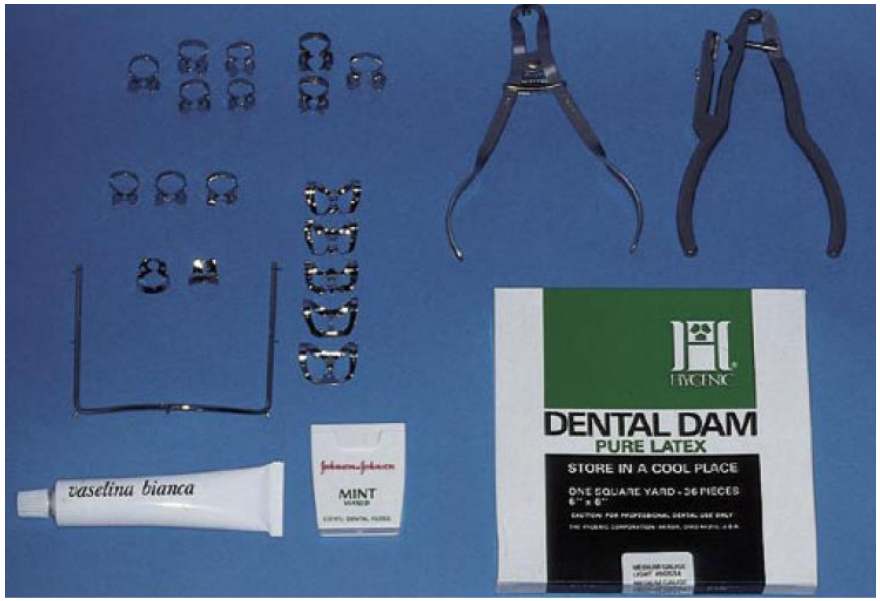
iii- barrier - rubber dam and associated retainers and retractors

iv- combinations of the above





The rubber dam:



Advantages of using the rubber dam:

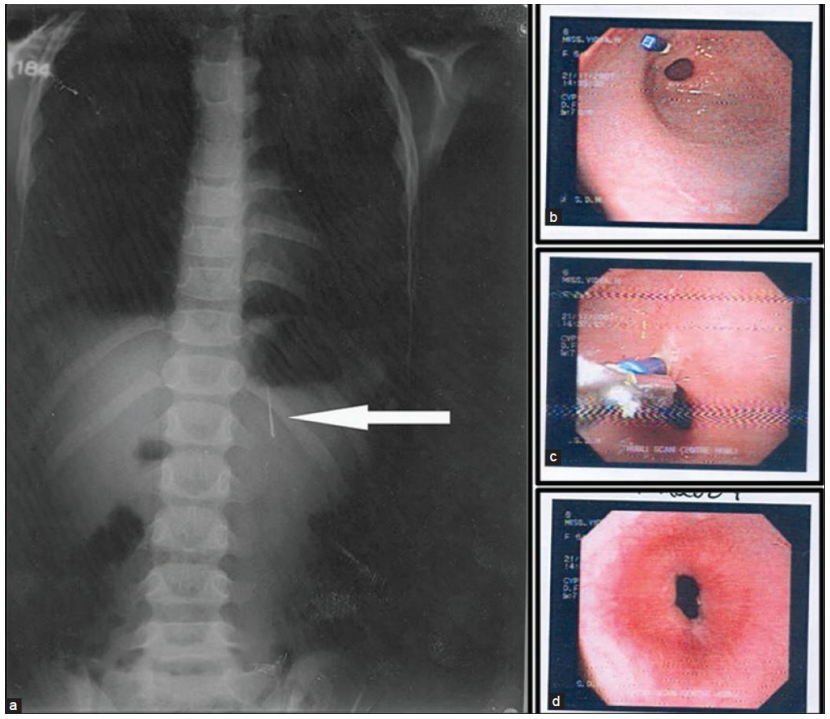
1- Isolation of the tooth/ teeth from the rest of the oral environment and achieving a surgically clean field.

Advantages of using the rubber dam:

2- Patient protection from the ingestion or,

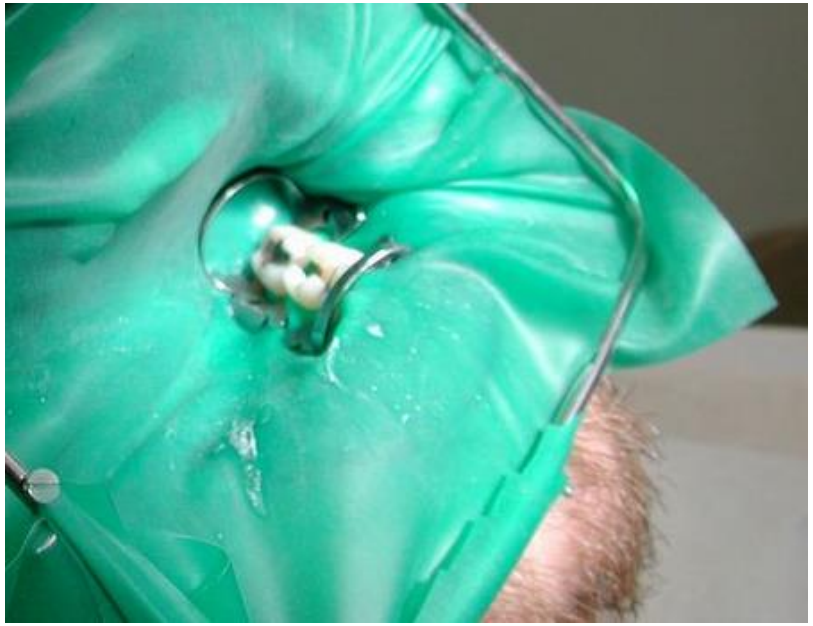
worse, the aspiration of small instruments,

dental fragments or irrigating solutions.



Advantages of using the rubber dam:

3. Retraction and protection of the soft tissues (gums, tongue, lips, and cheeks).



Advantages of using the rubber dam:

4. Protection of the dentist (and dental assistants) from infections which can be transmitted by the patient's saliva.

Advantages of using the rubber dam:

5. Improved visibility in the working field.

6. Increased treatment efficiency (minimizes patient conversations, swallowing and rinsing)

7. Better tactile sensitivity during the cleaning and shaping procedure.

8. The patients are more comfortable, as they do not feel that their mouth is invaded by hands, instruments, and liquids.

9. Dentists can work at a more leisurely pace and may be permitted to answer a phone call, leaving the patients well protected with the rubber dam and the dental assistant close to them.

Components:

1. Rubber dam:

A rubber sheet that is made in different

Sizes: 5x5, 6x6 or rolls

Material: latex or non-latex

Colour: light, blue, green, purple…

Thickness: Extra heavy, heavy, medium, light

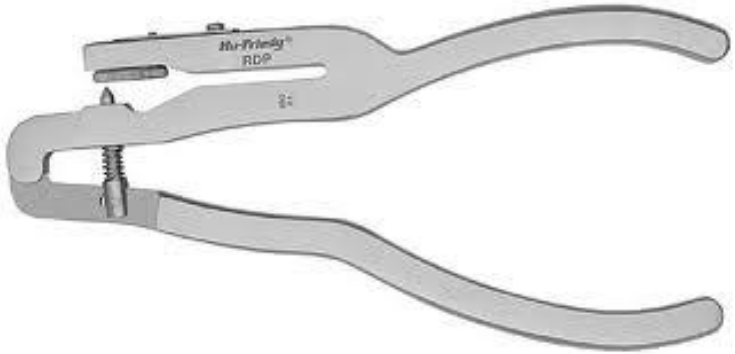
Components:

2. Rubber dam punches:

To make a round hole(s) in the rubber sheet

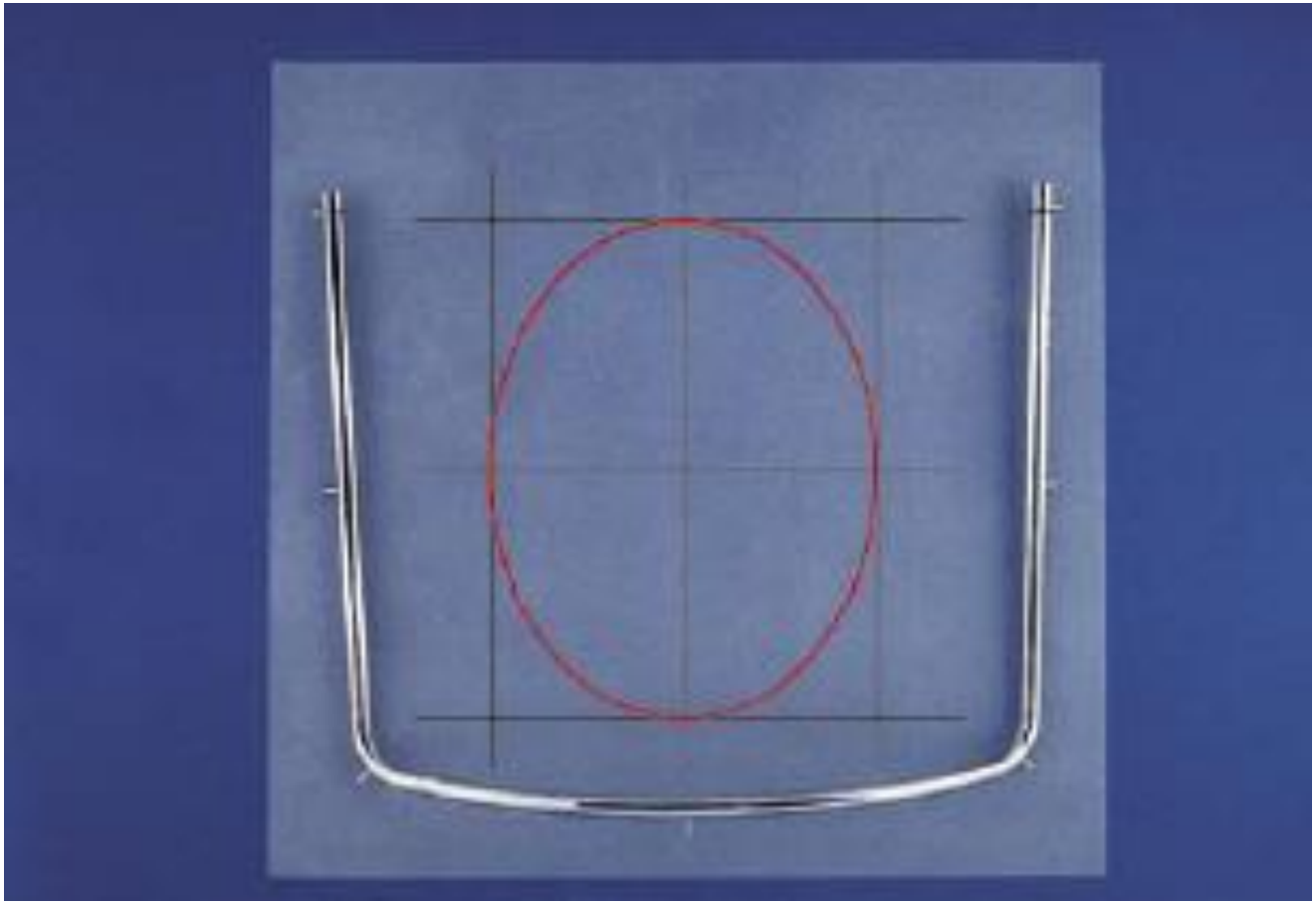
Holes range in size from 0.7 – 2mm

Ainsworth punch



Ivory punch

Hole position:



Components:

2. Clamps:

To anchor the rubber dam in place

Made of stainless steel

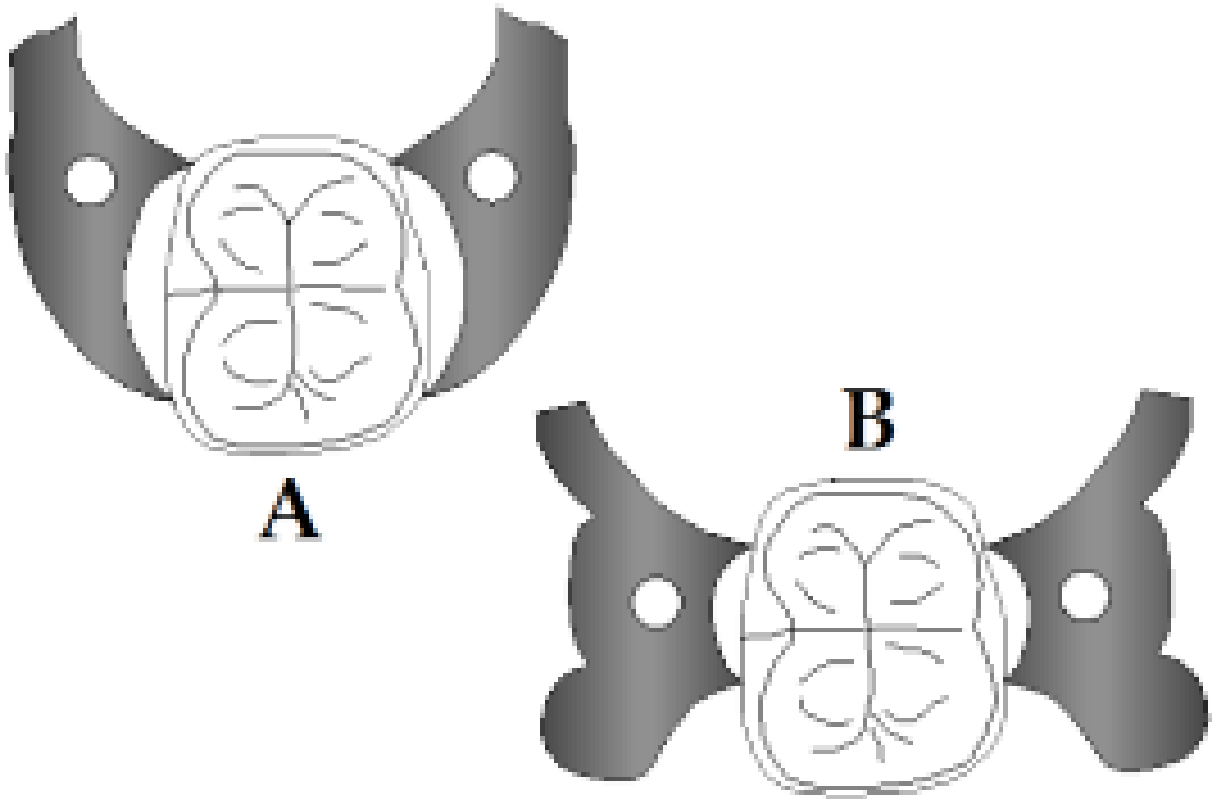
Molar, premolar or anterior (butterfly)

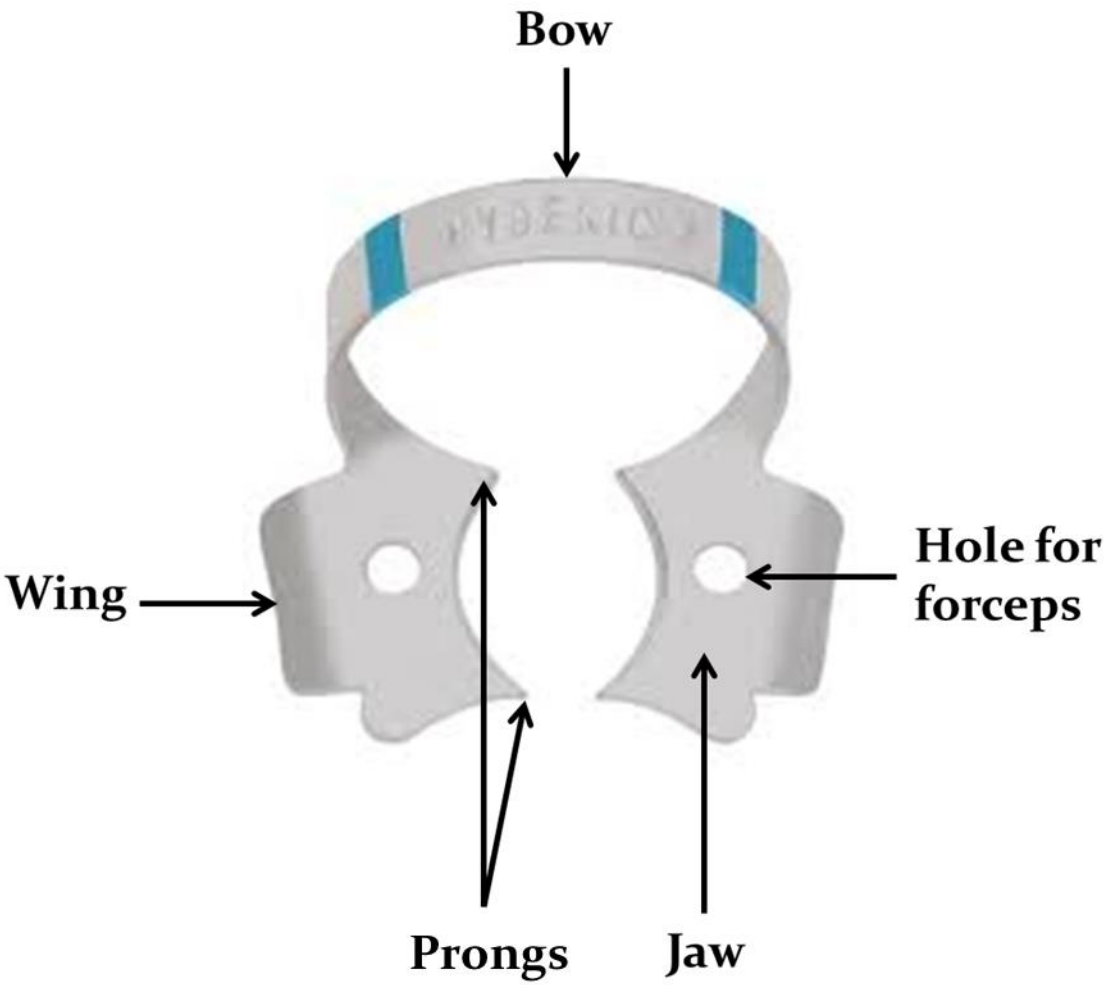
Winged or wingless

Straight or inverted prongs

The prongs must engage undercuts on the tooth surface

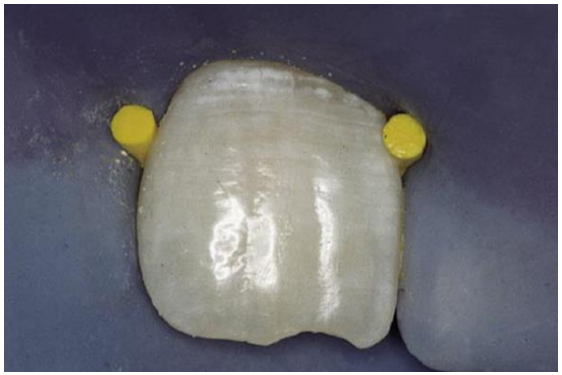
Four-point clamp-to-tooth relationship

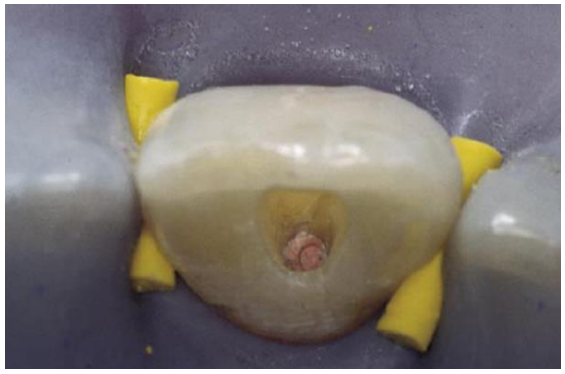

A
B


Bow
Wing
Hole for forceps
Prongs
Jaw

Alternative retainers:

- Strips of rubber dam
- Dental floss
- Wedjets
- Wooden wedges





Components:

4. Clamp forceps:

To open the clamp and position it around the tooth.

Uni of Washington forceps

Ivory forceps

Brewer forceps

Components:

5. Rubber dam frame:

To retract and stabilize the dam

Metal or plastic

Insti-Dam

Nygaard-Ostby (N-O)

Metal frame

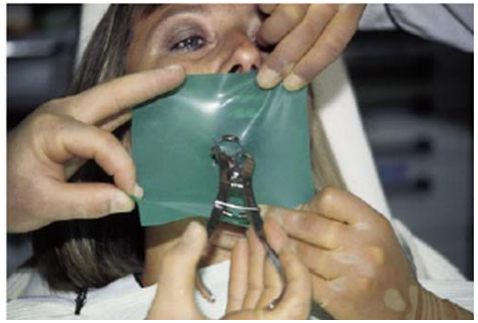
Young's

Other components:

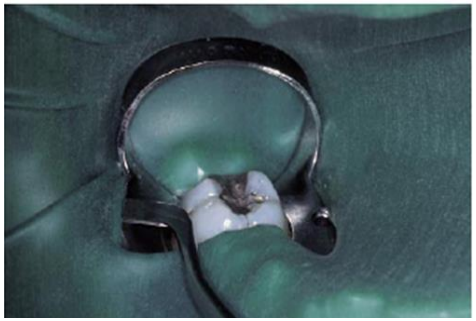
- Lubricants
- Rubber dam napkins
- Dental floss

Placement techniques:

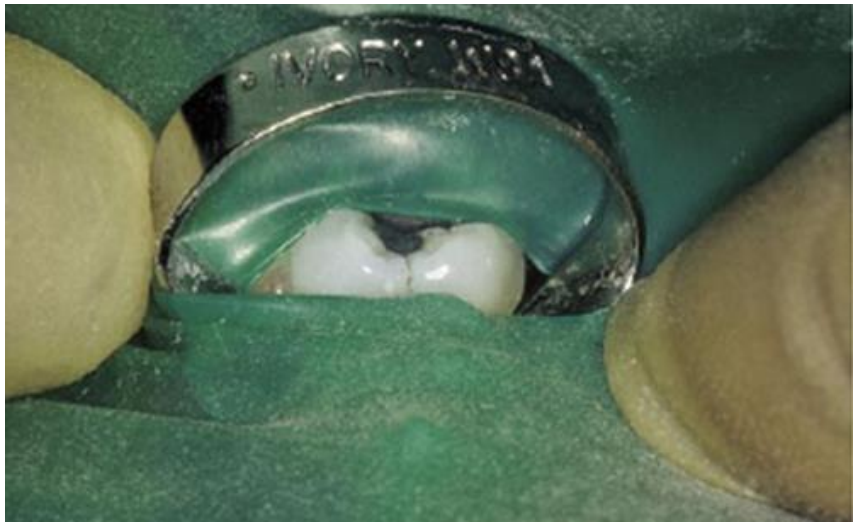









IVORY No.1


IVORY No.1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Rubber dam removal:

Use the forceps to remove the clamp

The rubber dam should be cut if a temporary filling is used in the contact area.

Pretreatment considerations:

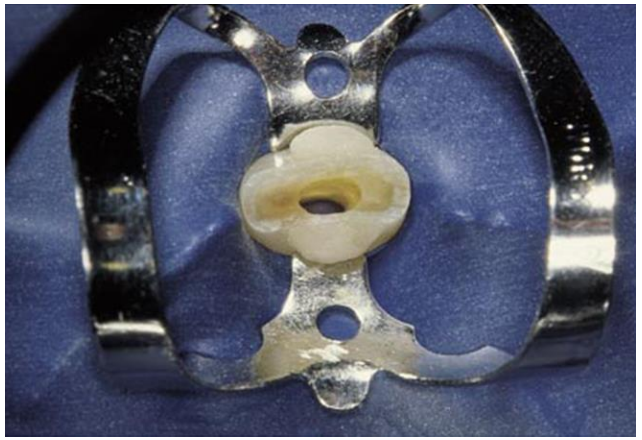
1. If rubber dam retainer is unstable:

a. modify rubber dam retainer beaks to achieve 4-point contact with the tooth.

b. bond resin composite or glass ionomer lugs on facial and/or lingual to stabilize retainer

c. specialized retainers are available, e.g. serrated jaws

d. use thinner gauge dental dam to decrease tension on retainer



Pretreatment considerations:

2. Badly destructed teeth:

may need to be built up with glass ionomer or composite before placement of the rubber dam. (*This can be facilitated by using copper bands, orthodontic bands, or S.S. temporary crowns*)

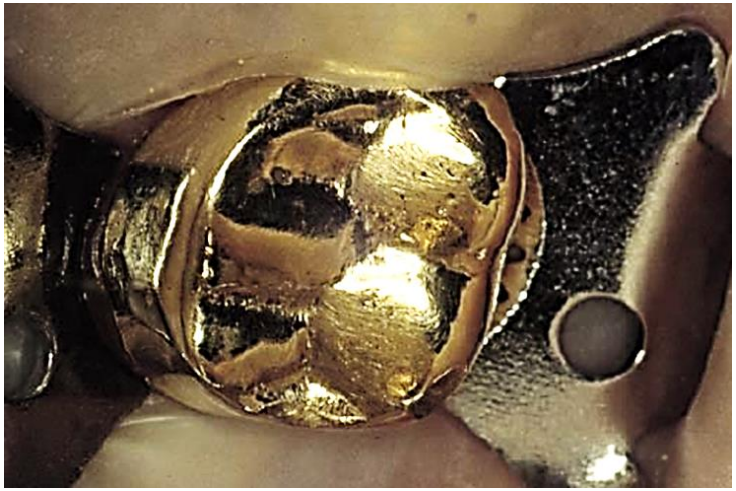
Use adjacent teeth to retain the rubber dam

Some cases may requiring clamping the gingival tissues. Profound soft tissue anesthesia required. Generally heals quickly

Pretreatment considerations:

3. If minor leaking occurs:

can sometimes be sealed off with CAVIT, Oraseal, or “liquid dam” products like Opal Dam (Ultradent).



Thank you!