Field isolation for restorative dentistry

: Goals of isolation

1) moisture control

 2) Retraction and access

 3) Harm prevention

# Advantages of field isolation #

* dry , clean operative.
* Access and visibility by Retraction of the surrounding tissues .
* improve properties of Dental materials
* protection of the patient and the operator by minimizing any fluid contact between them
* operating efficiency
* for the sake of tooth

assure that you isolate the tooth before reaching dentin otherwise the bacteria will enter the pulp through dentinal tubules ."

 # Disadvantages #

* Time consuming
* Maybe patients objectionable

# Ways of isolation #

**《1》 Rubber dam isolation**

# Materials of rubber dam ..

1) Dam material

Could be sterile (individually packed) or non-sterile

Different sizes (5×5 or 6×6) , colors (dark or light) and thicknesses (we usually use medium and heavy)

latex or latex-free (for patient who are sensitive from latex)

2) rubber dam holder or frame

3) retainer or clamp

it also used to retract the gingival tissue

it consist of 4 prongs and 2 jaws connected by bow

For safety purposes, the clamps hold be tied with long dental floss because for any reason the clamp might be accidentally swallowed ,so this step help us to pull it easily .

# Instruments used with rubber dam ..

1》 puncher

it makes holes at the suitable site on the rubber dam

2》 Napkin

used to absorb any saliva or fluids ..

3》 retainer forceps

4》 water-based lubricant

 Placed on the corners of the mouth.

\*\*\*Other methods for isolation:

**《2》 Cotton role**

you have to use at least 3 cotton role in the patient's mouth (one at the molars area because you have the parotid gland orifice there,One on the lingual sulcus under the tongue because you have the sublingual gland there ,and One on the buccal sulcus near the tooth that you are working on)

**《3》 Cellulose wafers**

we put them on the buccal cheek (they absorb 6 times more than the cotton role)

And give us a good field of isolation, they are very good absorbent to an extent that you may harm the patient if you remove them before wetting them , So you have to wet them before removing in order not to tear the epithelial tissue of the cheek (remove part of the mucosa).

**《4》 Throat shield**

 it is a gauze sponge , you put it in the patient mouth to avoid aspiring or swallowing small objects, these accidents is common in the crown tray in !

**《5》 Suction**

 there is two type of suction

1) Saliva ejector (only remove saliva and water)

2) High volume evacuator (they remove saliva blood and even objects; if you put a crown and there is excess cement it will remove it also )

**《6》 Svedopter**

 it is an advanced instrument that makes suction, it has a mirror for indirect vision and it make retraction for the tongue .(3 in 1)

**《7》 Hygoformic saliva ejector**

like the normal saliva ejector but made of plastic (more comfortable for the patient)

**《8》 Retraction cords**

**《9》 Mirrors & saliva ejector**

**《10》 Mouth props**

it is a method to keep the mouth of the patient opened passively in long procedure (because sometimes the patient will get tiered from opening his mouth actively (he may have pain in his muscles))

So you use the props, it composes of 2 types:

 1) Block

2) Ratchet (used in surgical procedure)

**《11》 Cheek retractor**

**《12》 Drugs**

 rarely indicated, like atropine (make hypo salivation)

**《13》 Isolate system**