

PEDIATRIC DENTISTRY

RESTORATIVE DENTISTRY FOR CHILDREN

Lec. 6

Done by

Dr. mukhaled Louay Al.Falluji

B.D.S. M.Sc.

RESTORATIVE DENTISTRY FOR CHILDREN

Selection of teeth for restorative dentistry according to certain basic considerations:

1. child's age: child at 12 year cannot have filling for his teeth until concluded if it retained or not.
2. Amount of tooth structure remains with consideration for space loss and construction of space maintainer.
3. Exfoliation time of deciduous tooth.

4. General health of the child.
 5. Present of draining fistula and history of swelling.
 6. Radiographic examination.
 7. Degree of tooth mobility.
 8. child's oral conditions and degree of parent education.
 9. Occlusion condition and amount of space require for ideal occlusion.
-

STATUS OF COMMON RESTORATIVE MATERIALS

The more common restorative materials used in pediatric dentistry are composite and other resin systems, glass ionomers, silver amalgam alloys, and stainless steel alloys. Composite resins, glass ionomers, or some combination of the two are being used progressively more and silver amalgam progressively less in pediatric restorative dentistry.

Many pediatric dentistry practices do not use silver amalgam at all; instead, some form of composite resin and/or glass ionomer is used. These materials have bonding capability. Glass ionomers may be considered pharmacologically therapeutic because they release fluoride over time; they also have minimal shrinkage during setting. Composite resins possess durability and superior esthetic qualities. When managed properly, both materials are capable of providing superior marginal sealing at the tooth–restorative material interface.

Despite its declining use, silver amalgam remains one of the most durable and cost-effective restorative materials. Success in using this filling material depends on adherence to certain principles of cavity preparation that do not always apply when materials on the glass ionomer–composite resin continuum are used.

Stainless steel alloy is another commonly used pediatric restorative material. It is used extensively for full coronal coverage restorations of primary teeth. Stainless steel crowns have undoubtedly preserved the function of many primary teeth that otherwise would have been unrestorable. In addition, stainless steel crowns are often used to restore all posterior teeth in young patients with high risk for caries who exhibit multiple proximal lesions that could otherwise be restored with silver amalgam or esthetic materials.

Crowns are used instead simply because they better protect all posterior tooth surfaces from developing additional caries and because the posterior crown restoration has proven to be the most durable and cost effective in the primary dentition. Anterior, as well as posterior, stainless steel crowns may have labial and/or occlusal resin or porcelain veneers to enhance esthetics.

MAINTENANCE OF A CLEAN FIELD

The maintenance of a clean operating field during cavity preparation and placement of the restorative material helps ensure efficient operation and development of a serviceable restoration that will maintain the tooth and the integrity of the developing occlusion. The rubber dam aids in the maintenance of a clean field.

The use of the rubber dam offers the following advantages:

1. *Saves time.* time saved through the elimination of rinsing and spitting by the pediatric patient.
2. *Aids management.* “raincoat” It has been found through experience that apprehensive or otherwise uncooperative children can often be controlled more easily with a rubber dam in place. Because the rubber dam efficiently controls the tongue and the lips, the dentist has greater freedom to complete the operative procedures.

3. *Controls saliva.* Control of saliva is an extremely important consideration when one is completing an ideal cavity preparation for primary teeth. The margin of error is appreciably reduced when a cavity is prepared in a primary tooth that has a large pulp and extensive carious involvement. Small pulp exposures may be more easily detected when the tooth is well isolated. It is equally important to observe the true extent of the exposure and the degree and type of hemorrhage from the pulp tissue. Thus the rubber dam aids the dentist in evaluating teeth that are being considered for vital pulp therapy.

4. *Provides protection.* The use of the rubber dam prevents foreign objects from coming into contact with oral structures. When filling material, debris, or medicaments are dropped into the mouth, salivary flow is stimulated and interferes with the operative or restorative procedure. A rubber dam also prevents the small child in a reclining position from swallowing or aspirating foreign objects and materials.

5. *Helps the dentist educate parents.* Parents are always interested in the treatment that has been accomplished for their child. While the rubber dam is in place, the dentist can conveniently show parents the completed work after an operative procedure. The rubber dam creates the feeling that the dentist has complete control of the situation and that a conscientious effort has been made to provide the highest type of service.

PARTS OF RUBBER DAM

1. 5- x 5-inch sheets of medium latex
 2. A rubber dam punch
 3. Clamp forceps
 4. Clamps
 5. A flat-blade instrument
 6. Dental floss
 7. A rubber dam frame
-

SELECTION OF A CLAMP

The operator will soon develop a personal preference for which clamps to use to secure the dam in isolating different areas in the mouth. Unless the clamp is firmly anchored to the tooth, the tension of the stretched rubber will easily dislodge it. Therefore the proper selection of a clamp is of utmost importance.

It is recommended that the clamp be tried on the tooth before the rubber dam is placed to ascertain that the clamp can be securely seated and will not be easily dislodged by the probing tongue, lip, or cheek musculature. An 18-inch length of dental floss should be doubled and securely fastened to the bow of the clamp. The floss will facilitate retrieval in the unlikely event that the clamp slips and falls toward the Pharynx.



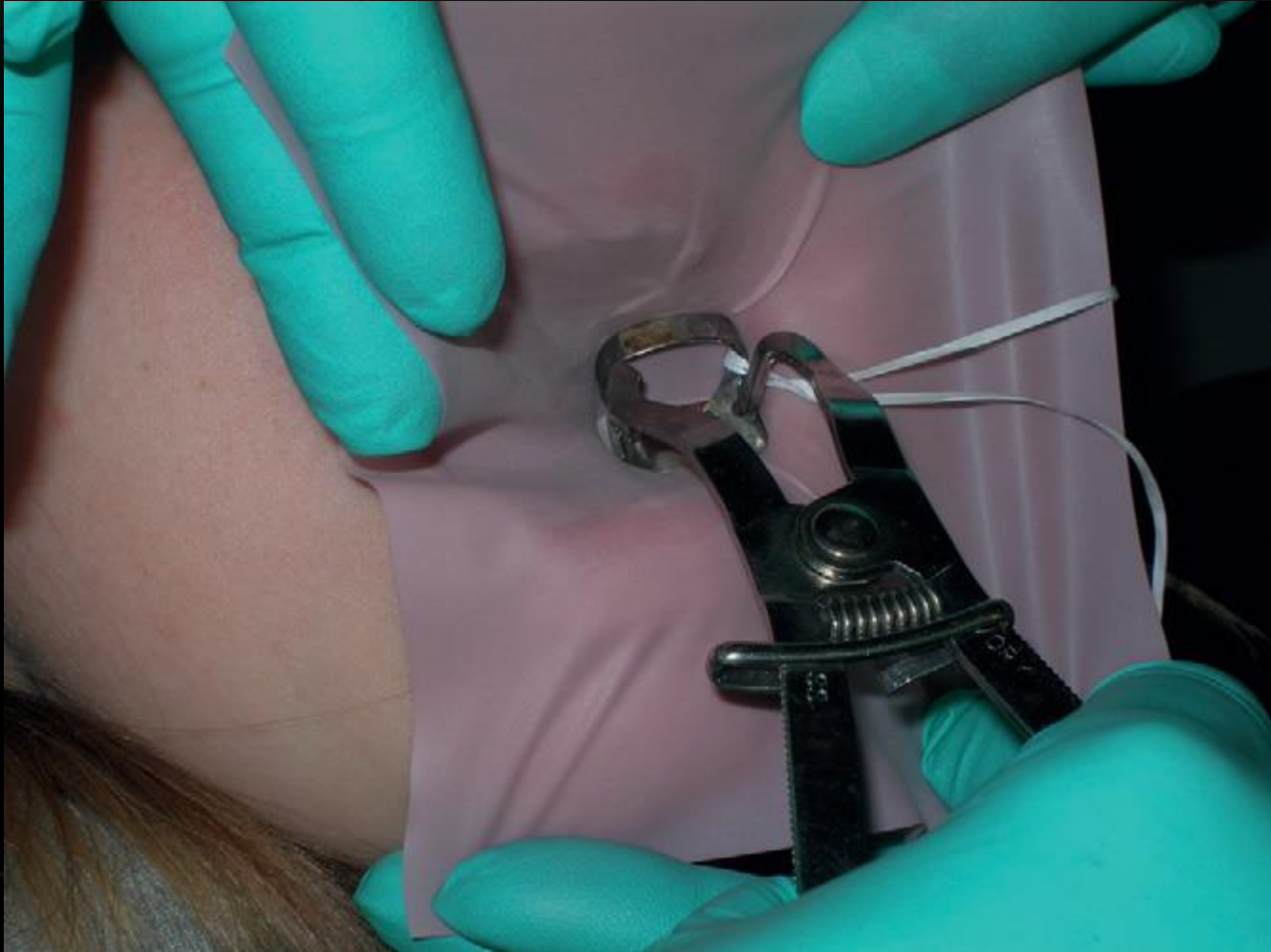
METHOD FOR APPLICATION RUBBER DAM

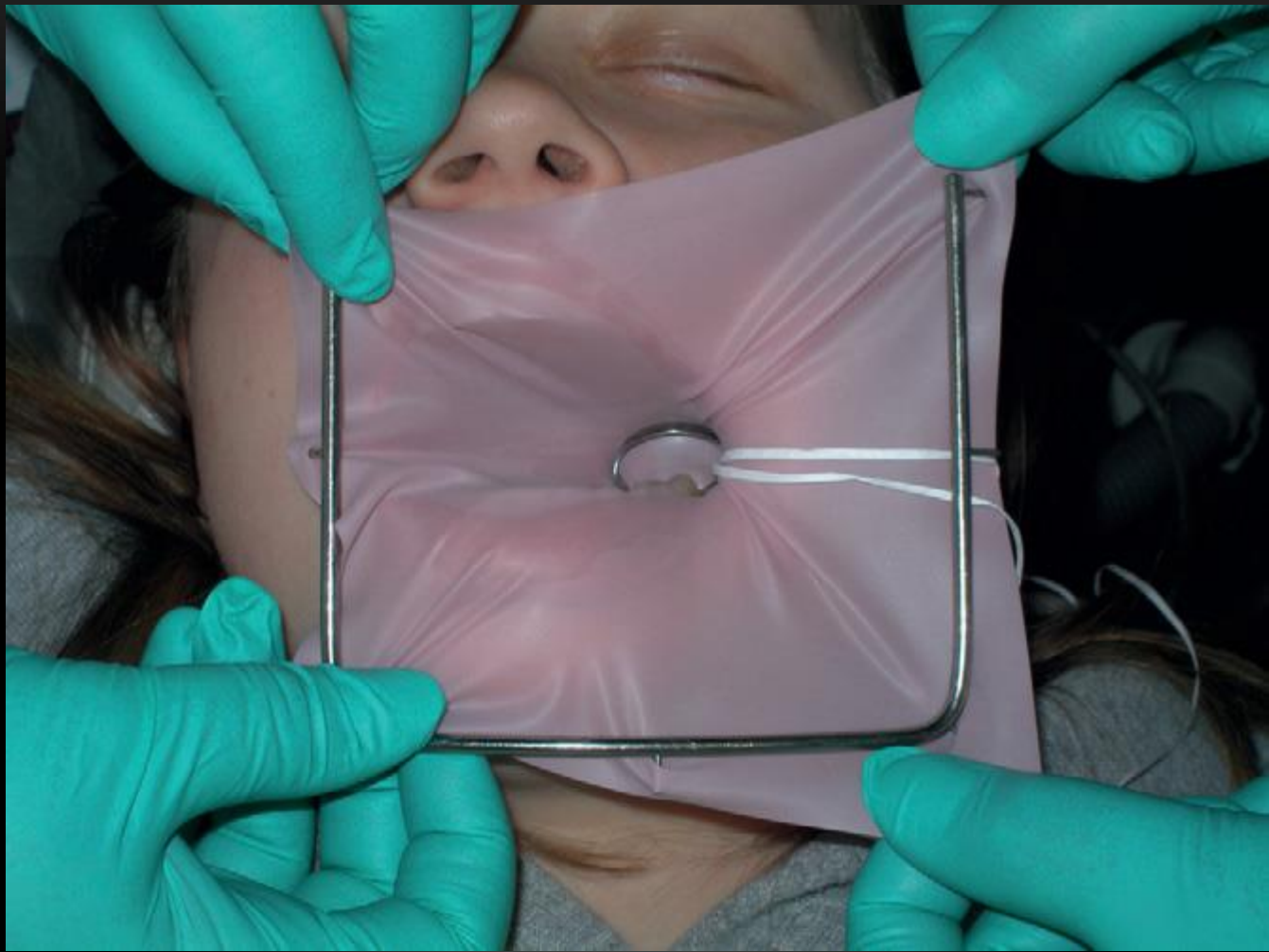
ligated clamp is placed in the rubber dam. The dentist grasps the clamp forceps with the clamp engaged. The assistant, seated to the left of the patient (the dentist is right-handed in this example), grasps the upper corners of the dam with the right hand and the lower left corner between the left thumb and index finger. The dam is moved toward the patient's face as the dentist carries the clamp to the tooth while holding the lower right portion of the dam. After securing the clamp on the tooth, the dentist transfers the clamp forceps to the assistant, who receives it while continuing to hold the upper corners of the dam with the right hand.

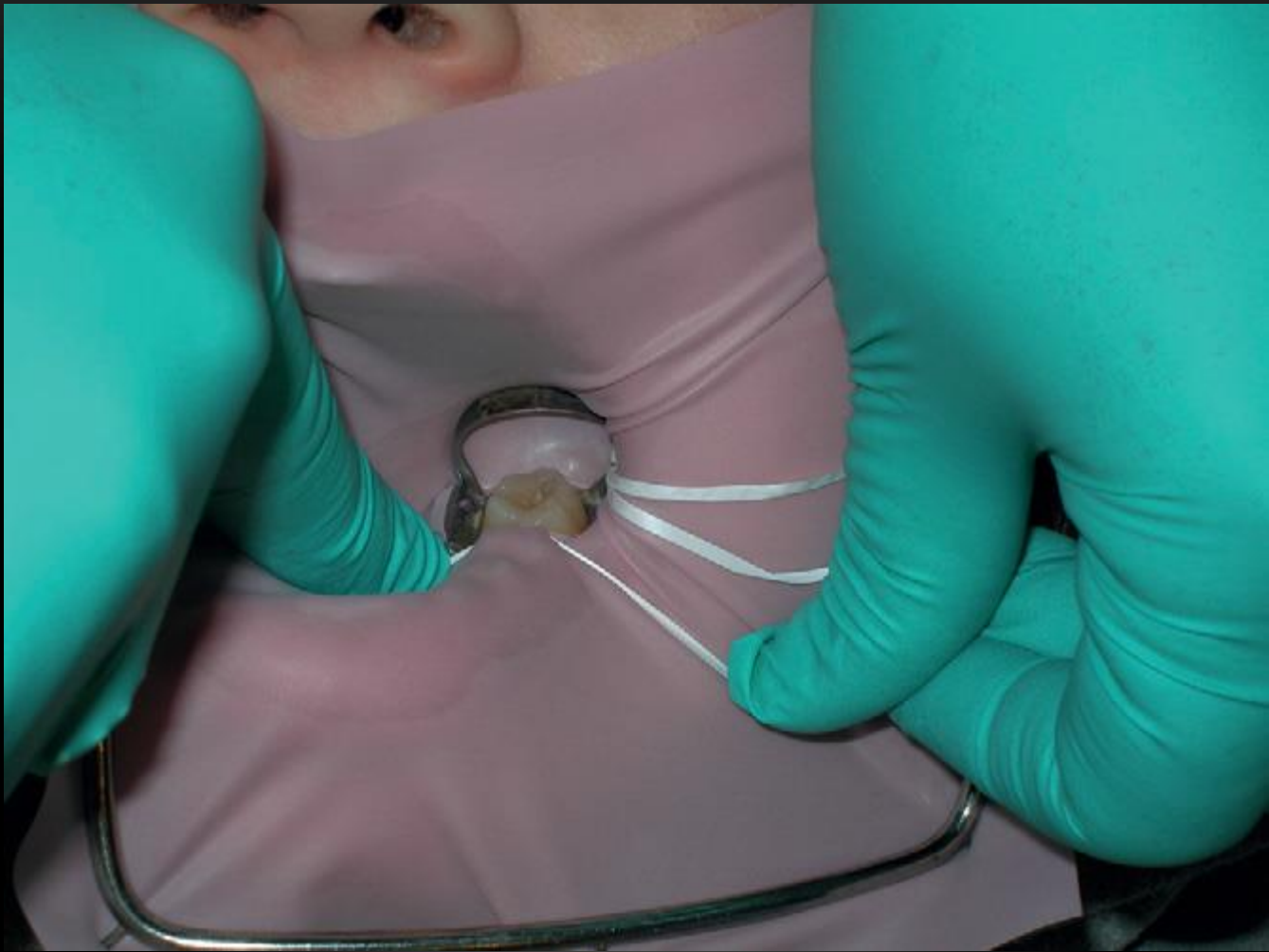
The dentist then places the frame over the rubber dam. Together the assistant and dentist attach the corners of the dam to the frame. The flat blade of a plastic instrument or a right-angle explorer may be used to remove the rubber dam material from the wings of the clamp and to complete the seal around the clamped tooth. If necessary, light finger pressure may seat the clamp securely by moving it cervically on the tooth. If additional teeth are to be isolated, the rubber is stretched over them, and the excess rubber between the punched holes is placed between the contact areas with the aid of dental floss

The most anterior tooth and others if necessary are ligated to aid in the retention of the dam and the prevention of cervical leakage. The free ends of the floss are allowed to remain, because they may aid in the further retraction of the gingival tissue or the patient's lip during the operative procedure. At the end of the operative procedure.

METHOD FOR RUBBER DAM APPLICATION









- Second method by application of clamp to the tooth then stretched the rubber dam by fingers and enter the hole around the clamp.
 - Third method called one piece application.
 - The application should be done carefully and should be away from the eye of the patient also attention for the breath of the child not to close to the nose and if the child is mouth breather for any reason so make a small hole in the middle of rubber dam
-



THANK
YOU!

