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Lesson 1
Benefits of Using Dental Dam

LEARNING OBJECTIVES

- Upon completion of this section, you should be able to list the major benefits of using dental dam.

TERMINOLOGY

Aseptic: Free of infectious microorganisms.

Microbial: Containing disease causing microorganisms.

BENEFITS OF USING DENTAL DAM

Dental dam has been in existence for over one hundred years, yet this potential practice builder has been overlooked due to the misconception that its application is both time-consuming for professionals and unpopular with patients. In reality, dental dam utilization has five important benefits:

1. **PATIENT PROTECTION/RISK MANAGEMENT:** With dental dam placed, the aspiration or swallowing of debris and foreign objects is decreased. Patients experience a feeling of separation from restorative procedures and are more comfortable and relaxed.

2. **INCREASED ACCESS/VISIBILITY:** Properly placed dental dam eliminates the common visual obstructions encountered during operative procedures (the cheeks, lips and tongue). Operative field access and visibility are vastly improved.

3. **IMPROVED TIME EFFICIENCY:** Properly placed dental dam provides a clearly defined operative field, allowing the dental team to work with greater efficiency.

4. **MOISTURE CONTROL/IMPROVED QUALITY:** Many dental restorative materials are adversely affected by saliva. Because properly placed dental dam promotes a moisture-free, uncontaminated working environment, these materials are permitted the luxury of setting under optimum conditions. The quality of the resulting restorations or procedures is undeniably superior to those performed without dental dam utilization.
5. **INFECTION CONTROL:** The oral cavity is the prime source of microbial contamination during dental procedures, either through direct contact or aerosolization from high speed instruments. Properly placed dental dam acts as an effective barrier between the oral cavity and the operative field.

### SELF-EVALUATION EXERCISES

Insert the missing text in the blank spaces listed below.

1. The dental dam ___________ access and visibility by _____________ the most common obstructions encountered during operative procedures which are the___________ and ______________.

2. The dental dam provides the patient protection from ____________ or ____________ any foreign objects or debris.

3. Because properly placed dental dam promotes a ___________, working environment, restorative materials are permitted to set under _____________ conditions.

4. Properly placed dental dam acts as an effective barrier between the oral cavity and the operating field, thereby reducing _____________ contamination during restorative procedures.

5. Patients feel comfortable with the dental dam in place because it __________ debris from collecting at the back of the throat and acts as a _____________ between them and the procedure.

6. Because a properly placed dental dam provides a clearly defined __________ field, the dental team may work with greater _____________.

7. Greater clinical success is achieved with the dental dam due to increased ____________ control, greater ____________ to the operating field, and increased patient _____________.

Lesson 2
Product Descriptions and Properties

LEARNING OBJECTIVES

- Identify the usage of the various sizes, colors, and gauges of dental dam.
- Identify proper storage conditions of dental dam.
- Identify non-contamination precautions required when storing and using non-latex dental dam.

TERMINOLOGY

Gauge: Refers to thickness (weight) of dental dam.

Transillumination: A phenomenon whereby light passes through the dam, illuminates the pulp chamber, and enhances visualization of the root canal orifices of a tooth (endodontic treatment).

CATEGORIES OF DENTAL DAM

Ready-Cut Dam

5” x 5” sheets (52 pieces per box)
Used for endodontic, pediatric dentistry, and anterior applications.

6” x 6” sheets (36 pieces per box)
Used for adult operative procedures.

Convenience Packs

5” x 5” /127mm x 127mm sheets (364 pieces per box)
6” x 6”/152mm x 152mm sheets (360 pieces per box)

Available in:
- Thin and medium gauges green, dark, and light
- Medium gauge FIESTA® Dental Dam
- Non-Latex Dam available in convenience pack of 75 sheets per box
- Elasti-dam (powder-free latex dam), medium and heavy gauges in green and blue

Roll Dam

5” x 22’/127mm x 6.7m roll

6” x 18’/152mm x 5.5m roll

Roll Dam may be cut to any desired length and is used less frequently than Ready-Cut Dam. All boxes contain one square yard of material.
Fiesta Dental Dam

An assortment of three fruit-scented pastel colors of pink, blue, and purple. Available in thin, medium, heavy, 5" x 5" and 6" x 6" sheets.

Non-Latex Dental Dam

Recommended for individuals who are sensitive to natural rubber latex. Application techniques are similar to those used with conventional dam. Steps should be taken not to contaminate Non-Latex Dental Dam with other instruments or products which have come into contact with latex dam (punch, templates, stamps, etc.).

Non-Latex gloves should be used during patient treatment. Store Non-Latex Dental Dam separately from latex products.

Hygenic Non-Latex Dental Dam is available in medium gauge, 6" x 6" and 5" x 5" in packs of 15 sheets or a 75 sheet convenience pack (6" x 6" only).

The Hygenic Flexi Dam® Non-Latex Dental Dam offers greater strength and is available in medium gauge, 6" x 6", 30 sheets/pack only.

<table>
<thead>
<tr>
<th>Type of Dam</th>
<th>Benefits</th>
<th>Usage Recommendations</th>
</tr>
</thead>
<tbody>
<tr>
<td>Light</td>
<td>Increased transillumination</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Enhanced view of clinical field</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Vanilla scented/greater patient acceptance</td>
<td></td>
</tr>
<tr>
<td>Dark</td>
<td>Color contrast of clinical field</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Increased visibility</td>
<td></td>
</tr>
<tr>
<td>Green</td>
<td>Color contrast of clinical field</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Increased visibility</td>
<td>✓</td>
</tr>
<tr>
<td></td>
<td>Mint scented/greater patient acceptance</td>
<td></td>
</tr>
<tr>
<td>Blue</td>
<td>Improved photographic contrast of clinical field</td>
<td>✓</td>
</tr>
<tr>
<td>Fiesta Dental Dam (pink, blue, purple)</td>
<td>Fruit-scented</td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>Greater patient acceptance</td>
<td></td>
</tr>
<tr>
<td>HYGENIC Non-Latex Dental Dam (teal green)</td>
<td>100% latex-free &amp; powder free</td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>No patient or staff reaction to latex</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased transillumination</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Enhanced view of clinical field</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Extensive shelf-life</td>
<td></td>
</tr>
<tr>
<td></td>
<td>More tear resistant elastic than latex dam</td>
<td></td>
</tr>
<tr>
<td></td>
<td>No offensive odor</td>
<td></td>
</tr>
<tr>
<td>HYGENIC Flexi-Dam Non-Latex Dental Dam (purple, teal green)</td>
<td>100% latex-free &amp; powder free</td>
<td>✓ ✓</td>
</tr>
<tr>
<td></td>
<td>No patient or staff reaction to latex</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Increased transillumination</td>
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<td></td>
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<td></td>
</tr>
<tr>
<td></td>
<td>No offensive odor</td>
<td></td>
</tr>
</tbody>
</table>
GAUGES (WEIGHTS)

THIN: (.006" ± .002")
Recommended for endodontic isolations. The thinner the dam, the easier to apply. However, it does not retract soft tissues as well as heavier weights.

MEDIUM: (.008" ± .002")
This weight is most often used because it is easy to manipulate.

HEAVY: (.010" ± .002")
Recommended for restorative procedures, as it aids in the retraction of soft tissues.

EXTRA-HEAVY (0.12" ± .002")
Affords maximum tissue retraction.

SPECIAL-HEAVY (0.14" ± .002")
The heaviest weight; available in dark color. Recommended for special isolations where tissue protection is paramount (i.e., bleaching procedures).

SHELF-LIFE

Natural rubber latex dental dam is a perishable product. It is sensitive to age and storage conditions. Many variables (especially temperature) affect this material, therefore it should be stored in temperatures less than 80°F or 26°C.

Non-Latex Dental Dam is not as sensitive to temperature as latex dental dam but should be stored at ambient room temperature to maximize shelf life.

DATE CODE

For best product performance, dental dam should be used prior to the expiration date listed on the box.
1. Dental dam is available in:
   a.) Ready-cut 5" or 6" square sheets
   b.) Rolls (5" or 6" wide)
   c.) A variety of colors
   d.) Non-Latex
   e.) All the above

2. Light dam is used for procedures due to increased ____________________.

3. The darker colors provided __________________ and reduce the glare from the light.

4. Thin dam is often used for __________________ isolation, as tissue retraction is not critical for this procedure.

5. __________________ gauge dam is most frequently used, due to its ease of application.

6. Benefits of using the heavier weights of dam are increased __________________ and protection of the __________________ tissues.

7. It is imperative to take the necessary precautions not to __________________ the Non-Latex Dental Dam with latex-containing products; therefore, Non-Latex Dam should be stored ________________ and non-latex exam gloves should be used with this product.
Step 1: Determine the Operating Field

LEARNING OBJECTIVES

- Identify which teeth to include in the operating field for the following isolations:
  - Posterior Isolation
  - Anterior Isolation
  - Single Tooth (Endodontic) Isolation
  - Pediatric dentistry Isolation

TERMINOLOGY

Operating field: Includes the tooth (teeth) to be treated in addition to other teeth which are isolated to gain better access and visibility.

POSTERIOR ISOLATION
One tooth distal to the tooth (teeth) being treated and extend to midline.

ANTERIOR ISOLATION
Include premolar to premolar.
SINGLE-TOOTH (ENDODONTIC/SEALANTS) ISOLATION
Include only the tooth being treated.

PEDIATRIC DENTISTRY ISOLATION
Isolate one tooth mesial and distal to the tooth (teeth) being treated.

SELF-EVALUATION EXERCISES
Fill in the blanks.

1. It is necessary to ____________ a sufficient number of teeth in order to provide good _____________ and ______________ of the operating field.

Match the following:

- Posterior Isolation ______ a. Used for sealants and endodontic treatment
- Pediatric dentistry Isolation ______ b. Isolate premolar to premolar
- Anterior Isolation ______ c. Isolate one tooth distal to treated tooth and extend to midline
- Single-tooth Isolation ______ d. Isolate teeth directly involved in procedure, usually three or four teeth
Lesson 3 / Step 2
Simplified Steps of Dental Dam Application

Step 2: Dental Dam Preparation

LEARNING OBJECTIVES

• Identify the necessary steps required to prepare the dental dam for placement.

TERMINOLOGY

Template: A device containing the imprint of the dental arch used for marking hole positions on the dental dam.

Punch table: That part of the dental dam punch that contains the cutting edge used to perforate the holes in the dental dam.

Tissue-side of dam: That part of the dam that goes toward the patient’s soft tissues.

Interseptal dam: That part of the dam that is placed between the teeth (dam between the punched holes).

PRACTICAL EXERCISES

Determine Hole Positions
Hole positions can be easily marked using a template. The template provided in Appendix G is for the adult dentition and is to be used with the 6" x 6" dental dam.

Marking Hole Positions
Place the dam on top of the template and mark the holes for teeth #25 to #30 (41 - 46*) using a felt-tip pen.

Punching Holes
Punch the appropriate hole sizes for the teeth to be included in your isolation (see diagram).

When using Non-Latex Dental Dam, it is advisable to punch one hole size smaller than recommended for latex dam.

*International Identification System
Proper punching includes proper alignment of the punch table with the pin, alignment of the pin with the hole mark on the dam, and punching; then, pulling the dam up over the point of the punch.

An improperly cut hole will result in a nick or tag that may cause the dam to rip while it is being placed (consistent nicks or tags may be indicative of a dull punch).

Water-Soluble Lubricant

A water-soluble lubricant (KY® Jelly) is placed on the tissue side (non-powdered) of the dam. The lubricant facilitates placement of the interseptal dental dam. Vaseline® is not recommended as it does not readily rinse off the surfaces of the teeth.

KY® Jelly is a trademark of Johnson & Johnson Vaseline® is a trademark of Chesebrough Ponds USA Co.
Lesson 3 / Step 3
Simplified Steps of Dental Dam Application

Step 3: Retainer Selection/Application

LEARNING OBJECTIVES

- Identify the two methods of retaining the dental dam.
- Identify the two types of clamps and list the categories of clamps and their uses.
- Describe the methodology of clamp placement and the techniques discussed for placement of the dental dam using winged and wingless clamps and WEDJETS® Cord.

TERMINOLOGY

Retainer: A device that anchors the dental dam in place (i.e., clamps, WEDJETS® Cord).

Clamp Forceps: An instrument that engages the clamp and allows for activation during placement and removal of the clamp.

RETAINER SELECTION

Retainers are a general classification for devices that hold the dental dam in place. Examples of retainers are clamps and WEDJETS® Cord.

There are two types of clamps: winged and wingless. Winged clamps have projections at the jaws, while wingless do not. A wingless clamp is designated by a “W” which precedes its number. An “A” following the number identifies a clamp with subgingival jaws.

Please note the anatomical landmarks for each style clamp. When placing a clamp, the bow of the clamp is positioned on the distal of the tooth.
CLAMP SELECTION GUIDELINES

Select a clamp that will maintain four-point contact with the tooth’s proximal surfaces. If a clamp is too large, it will impinge on the soft tissues. If it is too small, it will not properly grasp the tooth’s surface, and will be unstable.

SELECTING THE APPROPRIATE CLAMP

**Anterior Tooth:** Use a double-bowed clamp (i.e. #9).

**Premolar:** Use a small, flat-jawed clamp, (i.e. #00, #2) or curved-jawed clamp (#1) for maxillary premolar.

**Mandibular Molar:** Use a flat-jawed clamp, (i.e. #3, #7).

**Maxillary Molar:** Use a clamp with curved jaws (i.e. #8, #56, #4).

**Partially-Erupted Tooth:** Use a clamp with sub-gingivally designed jaws, suitable to the size of anchor tooth (i.e. #2A, #8A, #14, #14A).

**Structurally Compromised Tooth:** Use a clamp with serrated jaws (i.e. #12A, #13A).

ISOLATION FOR CLASS V RESTORATIONS

It is recommended to stabilize the #212, #B4, #B5, and #B6 clamps with stick impression compound. Once the clamp is seated, soften the compound over a flame, temper in hot water, and adapt around one bow of the clamp while pressing it into the embrasures of the adjacent teeth. Repeat process for the other bow.

Isolation for Class V Restoration
USING WEDJETS® DENTAL DAM STABILIZING CORD

PRACTICAL EXERCISES

Basic Clamps
Using the information you have learned, match the appropriate clamp numbers to the descriptions that best describe them. (Some responses may have more than one answer.)

- Most common premolar clamp
- Used for partially erupted or irregularly-shaped molars
- Universal maxillary molar clamp
- Large mandibular molar clamp
- Used for maxillary premolars or deciduous teeth
- Small mandibular molar clamp
- Used for small maxillary molars or deciduous teeth
- Used for small premolars, incisors, or deciduous teeth
- Universal maxillary and mandibular molar clamp
- Used for maxillary or mandibular anterior teeth for single-tooth isolation
- Mandibular and maxillary molar clamps with serrated jaws for greater retention
Specialty Clamps

Match the following:

____ Used for crown and bridge preparation and cementation
____ Used for gingival retraction for placement of Class V restorations for anterior teeth
____ Specially designed to allow seating to the depth of the gingival sulcus without lacerating tissue
____ A paired set of clamps used for upper molars
____ Lower molar clamp
____ May be used for pediatric dentistry applications

FIESTA COLOR CODED CLAMPS BENEFITS:

1. Color coded clamps and organizer provide easy identification and storage.
2. Clamps have a matte finish for better visibility.
4. Clamps may be cleaned and sterilized on color coded stainless steel clamp organizer.

PRACTICAL EXERCISES

Application Techniques

The Winged Technique: The advantage is that steps are eliminated because the dam, clamp, and frame are simultaneously carried to the patient’s mouth for placement. Take the time now to prepare the dental dam for placement using the winged technique.

* It is recommended that a safety ligation also be placed on a winged clamp to protect the patient should the clamp become dislodged from the dam.
PRACTICAL EXERCISES

Application Techniques

The Wingless Technique: The clamp is placed on the tooth first, and the dam is stretched over the clamp and tooth. Tie a safety ligation* to the clamp to prevent swallowing should the clamp become dislodged. Now place a safety ligation on a wingless clamp.

The Modified Winged Technique: The dam is stretched over the bow of the clamp prior to its placement in the mouth. The clamp is seated and the dam is stretched over the jaws and tooth. Take the time now to prepare the dental dam using the modified winged technique. (Don’t forget the safety ligation on the clamp!)

* It is recommended that a safety ligation also be placed on a winged clamp to protect the patient should the clamp become dislodged from the dam.
Lesson 3 / Step 4
Simplified Steps of Dental Dam Application

Step 4: Dental Dam Placement

LEARNING OBJECTIVES

- Identify the sequence for dental dam placement.
- Describe the procedures for managing interproximal placement of the dental dam.
- Describe the methods of inverting the dental dam.

TERMINOLOGY

Interproximal: Relating to the area between crowns of adjacent teeth.

Inversion: Tucking the edges of the dental dam into the gingival sulcus to create a moisture seal around the necks of the teeth.

Knifed-Edge Technique: A technique whereby an edge of the interseptal dental dam is knifed through the contact area.

Loop-Technique: A technique that uses waxed dental floss to place the interseptal dental dam through the contact.

PROCEDURAL REVIEW

INTERPROXIMAL PLACEMENT OF DENTAL DAM

Interproximal placement of the interseptal dental dam may be easily accomplished if a water-soluble lubricant is applied to the dam and the following techniques are employed.

KNIFED-EDGE TECHNIQUE: A common mistake made is to bunch the dental dam while trying to force it all through the contact at the same time. Instead, “knife” the edge through the contact area. If the contact is not very tight, the dam should slip through it.
LOOP TECHNIQUE: For more difficult contacts, use waxed floss to carry an edge of the dam through the contact area. The lingual end of the floss is looped over and inserted into the contact, while carrying more dam with it. Remove floss by pulling both ends buccally without disturbing the dam.

Practical Exercises

SEQUENCE OF DENTAL DAM PLACEMENT

The following sequence of application is out of procedural order. Insert the appropriate number that corresponds to the correct chronological sequence (i.e., #1 should identify the first step in the application; #2, the second step, etc.).

____ Use the Loop Technique to pass dam between tight contacts.
____ Place napkin and frame.
____ Decide which application technique to use.
____ Invert dental dam.
____ Secure dental dam posteriorly with a dental dam retainer.
____ Determine which teeth to include in operating field.
____ When placing dam interproximally, use Knife-Edged Technique to properly align dam between the teeth.
____ Prepare dental dam for isolation procedure.
____ Secure dental dam anteriorly using WEDJETS® Cord.

CREATING A MOISTURE SEAL

Inversion of the edges of the dental dam is essential in creating a moisture seal around the necks of the teeth. A description of this technique follows.

INVERSION: Using a blunted instrument and a steady stream of air, tuck the edges of the dental dam into the gingival sulcus.
Lesson 3 / Step 5
Simplified Steps of Dental Dam Application

Step 5: Dental Dam Removal

LEARNING OBJECTIVES

• Identify the correct steps for dental dam removal.

PRACTICAL EXERCISES

The following sequence for dental dam removal is not in the correct order. Insert the appropriate number that corresponds to the correct chronological order (i.e., #1-first step in removal process; #2-second step, etc.).

____ Remove clamp.
____ Insert finger into buccal vestibule to protect patient’s lip during cutting procedure.
____ Cut interseptal dam with entire blade of a blunted scissors.
____ Wipe patient’s face.
____ Check for missing pieces of interseptal dental dam.
____ Pull interseptal dam in a lateral direction away from the soft tissues.
____ Rinse patient’s mouth.
____ Remove frame.
____ Remove WEDJETS® Cord.
Lesson 4
Pearls of Wisdom/Unique Techniques

LEARNING OBJECTIVES

• Identify the various options available when using matrix bands with the dental dam.

• State specific reasons for leakage around the dental dam and what may be done to correct the problem.

• Identify two techniques for isolation of structurally compromised teeth.

• Identify the procedures for which general field isolation is recommended.

TERMINOLOGY

General Field Isolation: An isolation technique whereby the dental dam is slit between two punched holes and applied to the operating field. This procedure eliminates placing the dam interproximally.

SELF-EVALUATION EXERCISES

1. A frequent problem of using a conventional matrix system with the dental dam is the ________ ________ infringes on the wings of the clamp which prevents ________ seating of the matrix band.

2. Which of the following techniques may be used when dealing with interproximal restorative treatment?
   a. Use a “retainerless” matrix system.
   b. Cut and contour a standard matrix band, while using wooden wedges interproximally to maintain contact and retention.
   c. Reposition the interseptal dental dam to an adjacent tooth during preparation so that the dam does not tear.
   d. Place a wooden wedge interproximally to depress the interseptal dam to prevent its tearing.
   e. All of the above.

3. List three reasons for leakage around the dental dam.
   _____________________________________________
   _____________________________________________
   _____________________________________________
4. List a technique for isolating structurally compromised teeth.

5. General field isolation is recommended for which of the following situations:
   a. When isolating around fixed bridges.
   b. For crown removal and cementation procedures.
   c. For preparation and cementation of laminate veneers.
   d. All of the above.
Appendix A
Glossary

Anchor Tooth: The tooth receiving the dental dam retainer (clamp).

Anterior: Toward the front.

Anterior Teeth: The mandibular and maxillary cuspids and incisors.

Armamentarium: The equipment and instruments of a practitioner; in this case, instruments required to apply dental dam.

Aseptic: Free of infectious microorganisms.

Bicuspid: A tooth with two cusps. Same as premolar.

Buccal: Adjacent to the cheek.

Canine: One of four teeth located distally to the lateral incisors, having a long conical crown and a single root (also known as cuspid).

Caries: Tooth decay.

Clamp: A device used to retain the dental dam. Also referred to as a retainer.

Class V Restorations: Cervical restorations.

Composite: A tooth-colored dental restorative material.

Contact Point: The location where the teeth touch each other (also contact area or contact).

Deciduous Teeth: The teeth of the first dentition, which are shed and followed by the permanent dentition.

Dental Dam Clamp: An instrument that engages the clamp and allows for activation during placement and removal of the clamp.

Dental Dam Punch: An instrument used to punch holes in the dental dam.

Dental Dam Punch Table: That part of the dental dam punch that contains the cutting edge used to perforate the holes in the dental dam.

Distal: Away from the midline.

Endodontic: Relating to the treatment of the tooth pulp (root canal therapy).
**Fixed Prosthesis**
A replacement for one or more missing teeth that is cemented or bonded and is not removable by the patient (crown, onlay, or bridge).

**Gauge**
Thickness of dam (i.e., thin, medium, heavy, etc.)

**General Field-Isolation**
A technique for isolating several teeth by “slitting” the dam between two punched holes.

**Gingiva**
The mucous membrane that surrounds the necks of erupted teeth.

**Gingival**
Pertaining to the gingiva.

**Incisor Teeth**
The four front teeth in the maxillary and mandibular arch.

**Incisal Edge**
Refers to the cutting edge of the anterior teeth.

**Interdental**
Situated between the proximal surfaces of adjacent teeth located in the same arch.

**Interseptal Dam**
That part of the dam which is placed between the teeth.

**Inversion**
Tucking the edges of the dental dam into the gingival sulcus to create a moisture seal around the necks of the teeth.

**Knifed-Edge Technique**
A technique whereby an edge of the interseptal dental dam is knifed through the contact area.

**Laminate Veneer**
A type of tooth-colored restoration made of either porcelain or composite that is bonded to a prepared tooth surface.

**Ligate**
To tie with a ligature.

**Ligature**
A thread or wire used for tying.

**Lingual**
Pertaining to the tongue.

**Loop Technique**
A technique whereby waxed dental floss is used to place the interseptal dental dam through the contact area.

**Malposed**
Not in the normal position.

**Mandibular**
Pertaining to the lower jaw bone or mandible.

**Maxillary**
Pertaining to the maxilla or upper jaw.

**Mesial**
The surface of a tooth that faces toward the midline.

**Microbial**
Containing disease-causing microorganisms.

**Operating Field**
Refers to the isolation field, which includes the tooth (teeth) to be treated in addition to other teeth that are isolated to gain better access and visibility.
<table>
<thead>
<tr>
<th><strong>Pediatric dentistry</strong></th>
<th>Pertaining to the treatment of conditions of the teeth of children.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Premolar</strong></td>
<td>A posterior tooth with points and cusps for grasping, tearing, and chewing.</td>
</tr>
<tr>
<td><strong>Posterior</strong></td>
<td>Toward the back.</td>
</tr>
<tr>
<td><strong>Posterior Teeth</strong></td>
<td>The mandibular and maxillary premolars and molars.</td>
</tr>
<tr>
<td><strong>Radiolucent</strong></td>
<td>That which permits X-rays to pass through, yet has some resistance to their passage.</td>
</tr>
<tr>
<td><strong>Radiopaque</strong></td>
<td>Not permitting the passage of X-rays: the representative areas appearing white on exposed film.</td>
</tr>
<tr>
<td><strong>Restoration</strong></td>
<td>A general term used to designate a filling, crown, bridge, partial or full denture used to restore part or all of the dentition to normal function.</td>
</tr>
<tr>
<td><strong>Retainer</strong></td>
<td>An appliance or device for retaining anything in position.</td>
</tr>
<tr>
<td><strong>Septum</strong></td>
<td>A dividing wall or partition.</td>
</tr>
<tr>
<td><strong>Serrated Clamp</strong></td>
<td>A clamp with notched sawlike edges located along the jaws of the clamp.</td>
</tr>
<tr>
<td><strong>Sulcus (gingival)</strong></td>
<td>A shallow groove between the tooth and the gingiva.</td>
</tr>
<tr>
<td><strong>Template</strong></td>
<td>A device used for marking hole positions on the dental dam.</td>
</tr>
<tr>
<td><strong>Tissue-Side of the Dam</strong></td>
<td>That side which is placed toward the patient's soft tissues (glossy side).</td>
</tr>
<tr>
<td><strong>Transillumination</strong></td>
<td>A phenomenon whereby light passes through the dam, illuminates the pulp chamber, and enhances visualization of the root canal orifices of a tooth.</td>
</tr>
<tr>
<td><strong>Tofflemire</strong></td>
<td>Type of retainer used to retain a matrix band in place during placement of a restoration.</td>
</tr>
<tr>
<td><strong>Vestibule (buccal)</strong></td>
<td>The corridor between the gingiva, lips, and (buccal) cheeks.</td>
</tr>
</tbody>
</table>

*Tofflemire is not a registered trademark of Colténe/Whaledent, Inc.*
Appendix B

References


Appendix C
Answers to Self-Evaluation Exercises

LESSON 1
1. Increases; eliminating; cheeks; lips; tongue
2. Ingesting; aspirating
3. Moisture-free; uncontaminated; optimum
4. Barrier; microbial
5. Prevents; barrier
6. Operative; efficiency
7. Moisture; access; management

LESSON 2
1. E
2. Endodontic; transillumination
3. Contrast
4. Endodontic
5. Medium
6. Tissue retraction; soft
7. Contaminate; separately; non-latex

LESSON 3 - Step 1
1. Isolate; access; visibility

Matching Questions:
Posterior isolation: c
Pediatric dentistry isolation: d
Anterior isolation: b
Single-tooth isolation: a

LESSON 3 - Step 3 Basic Clamps
2: Common premolar clamp 8A; 14; 14A: Partially erupted/irregularly-shaped molars
8: Universal maxillary molar clamp

LESSON 3 - Step 3 Specialty Clamps
B4: Crown/bridge preparation and cementation
212; B5; B6: Gingival retraction Class V restorations
B5; B6: Designed to allow seating without laceration (lingual jaw more supra- gingival than facial jaw)
B2: Upper left; B3: Upper right: Paired set of maxillary molar clamps
B1: Mandibular molar clamp
B1; B2; B3: May be used for pediatric dentistry applications

LESSON 3 - Step 4
Sequence of dam placement:
1. Determine which teeth to include in isolation.
2. Decide which application technique to use.
3. Prepare dental dam.
4. Secure dam posteriorly with a dental dam retainer.
5. Place napkin and frame.
7. Use Knifed-Edge Technique to properly align dam between the teeth.
8. Use Loop Technique to pass dam between tight contacts.
9. Invert dental dam

**LESSON 3 - Step 5**
Dental Dam Removal Sequence:
1. Remove WEDJETS® Cord.
2. Insert finger into buccal vestibule to protect patient’s lip.
3. Pull interseptal dam away from patient’s soft tissue.
5. Remove clamp.
6. Remove frame.
7. Check for pieces.
8. Rinse patient’s mouth.
9. Wipe patient’s face.

**LESSON 4**
1. Tofflemire retainer; complete
2. E. (all of the above).
3. Dam snagged on clamp; spacing between holes inadequate; no consideration made for malposed teeth.
4. Incorporate two structurally sound teeth on either side of the tooth that is compromised.
5. E. (all of the above).
Appendix D
Dental Dam Template (6”)

Place dam on top of template: mark with pen.

MAXILLARY

MANDIBULAR

6X6 DAM TEMPLATE