

## Fluoride Lesson Plan

**Course:** DAE 101

**Topic:** Fluoride

**Audience:** Adult Learners (Expanded Function Dental Assistant students)

### Instructional

**Objectives:** Upon completion of the lecture, the student should be able to:

1. Identify the rationale for fluoride application and selection.
2. Differentiate between the different types of fluoride.
3. Determine the pros and cons for fluoride application.
4. Demonstrate correct procedure for tray and varnish fluoride application.
5. Maintain proper infection control and body positioning throughout procedures

**Materials:** PowerPoint computer equipment  
Handout

### References:

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**Personnel:** None needed

**Time:** 50 minutes

TIME	LESSON CONTENT	NOTES
3 minutes	<p><b>I. INSTRUCTIONAL SET</b></p> <p><u>A. Introduction</u>  My name is Leena Balicat and I am a current graduate student at Old Dominion University. Here is some background on my education:  2014-2016 Biology Christopher Newport University in Newport News, VA  2016-2019 AAS in Dental Hygiene from Westmoreland County Community College in Youngstown, PA.  2019-2021 BS in Dental Hygiene/Minor in Psych from Old Dominion University in Norfolk, VA  2021-Present MS in Dental Hygiene/Concentration in Education and Research form Old Dominion University.</p> <p>Fluoride is often called nature’s cavity fighter and for good reason. Fluoride, a naturally-occurring mineral, helps prevent cavities in children and adults by making the outer surface of your teeth (enamel) more resistant to the acid attacks that cause tooth decay. It is used to strengthen the enamel.</p> <p><u>B. Established Mood</u>  By attending today’s lecture, you are showing a great deal of responsibility to yourself as well as your patients. Demonstrating proper fluoridex tray and varnish application will benefit your patients. Today we will learn about the rationale for fluoride application and selection, determining the pros and cons of treatment, demonstrating the proper method of applying fluoride varnish and tray, and maintaining proper infection control.</p> <p><u>C. Gain Attention/Motivate</u>  According to recent CDC statistics, among adults aged 20 and older, about 90% have had at least one cavity. This number can drastically decrease</p>	<p><b>Slide #1</b> Title</p> <p><b>Slide #2</b> Intro</p>

TIME	LESSON CONTENT	NOTES
2 minutes	<p>by implementing fluoride treatments to patients' prophylaxis appointments.</p> <p><u>D. Established Rational</u> By understanding the need for fluoride and being able to demonstrate proper methods, Expanded Function Dental Assistants can engage in this procedure for patients.</p> <p><u>E. Established Knowledge Base</u> Does anyone have a general reason why we recommend fluoride treatments to our patients? How about what methods of fluoride application we can provide?</p> <p><u>F. Instructional Objective</u> After today's lecture, you should be able to identify the rationale for fluoride application and selection, differentiate between the different types of fluoride, determine the indications and contraindications for fluoride application, demonstrate correct procedure for tray and varnish fluoride application, and maintain proper infection control and body positioning throughout procedures</p>	<p><b>Slide #3</b> Objectives</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
4 minutes	<p>I. <b>Fluoride Application</b></p> <p><b>A. Comprehensive Preventative Dentistry</b></p> <p>Even before that first tooth erupts into a baby’s mouth, the goal of preventive dentistry is to ensure that each parent and child have the resources, knowledge, and motivation to attain optimal oral health for a lifetime.</p> <p>As a dental professional, your job is to help patients develop and maintain sound dental habits throughout their lives. To accomplish this, you must educate, encourage, and assist patients to change attitudes and modify behaviors that work against good oral health.</p>	<p><b>Slide #4</b> Comprehensive Preventive Dentistry  <b>Note:</b> Out in the real world, you will see a lot of people who are misinformed and think Fluoride is bad. Our goal is to give them the facts about it. To do this, we must know about it.</p> <p><b>Q:</b> Does anyone know what comprehensive preventative dentistry means?  <b>A:</b> Students should answer that it is a measure to prevent caries or decay and maintain current health.</p>
	<p><b>B. What is comprehensive preventative dentistry?</b></p> <p>Preventive dentistry is dental care that helps maintain good oral health. It’s a combination of regular dental check-ups along with developing good habits like brushing and flossing. Taking care of your teeth starts early in childhood and extends throughout the course of your life.</p>	<p><b>Slide #5</b> What is comprehensive preventative dentistry?  <b>Note:</b> When you hear the phrase “preventive dentistry,” you probably think about how important it is to brush your teeth. However, effective preventive dentistry is much more than just remembering to brush your teeth each day. The goal of preventive dentistry is to prevent new and recurring disease, including tooth decay and periodontitis.</p>
	<p>Each of the following is essential to helping patients obtain and maintain a healthy mouth. When combined, these components form the foundation of a solid program for</p>	<p><b>Slide #6</b>  <b>Note:</b> Nutrition - Limits the consumption of sugar and adds dietary nutrients to</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p>preventive dentistry for both children and adults. This includes:</p> <ul style="list-style-type: none"> <li>• Nutrition</li> <li>• Patient education</li> <li>• Plaque control</li> <li>• Sealants</li> <li>• Fluoride</li> </ul>	<p>promote healthy teeth and gums</p> <p>Patient education - Provides information and motivation to patients that will help them develop the skills necessary to practice good oral hygiene</p> <p>Plaque control - Involves daily removal of bacterial plaque from teeth and adjacent oral structures.</p> <p>Fluoride - Involves ingestion and topical application of optimal amounts of fluoride to “fortify” teeth against the process of decay</p> <p>Sealants - Applies resin-like material to “difficult-to-clean” tooth surfaces, preventing bacteria from reaching into occlusal pits and fissure</p>
3 minutes	<p><b>C. History of Fluoride</b></p> <p>In 1901, a dentist named Frederick McKay in Colorado Springs noticed that most of the children in this community had ugly, dark brown stains on their teeth. Upon further examination, he found that these children also had little tooth decay, which was unusual for that day and time. What began as a report on “Colorado Brown Stain” led to decades of research on the tooth-strengthening effects of the mineral fluoride, dentistry’s primary weapon used to prevent dental caries.</p>	<p><b>Slide #7</b> History of Fluoride  <b>Note:</b> Father of communal fluoridation</p> <p>The noted “brown stown” was later identified as fluorosis.</p> <p><b>Q:</b> From the lesson we had on coronal polishing on Monday, does anyone remember what causes fluorosis?  <b>A:</b> Ingesting too much fluoride while the permanent teeth are still developing under the gums.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p>Dr. G. V. Black, renowned dental researcher, ended up collaborating with McKay and their research led them with two crucial discoveries:</p> <ol style="list-style-type: none"> <li>1. They showed that mottled enamel resulted from developmental imperfections in children's teeth. This finding meant that city residents whose permanent teeth had calcified without developing the stains did not risk having their teeth turn brown; young children waiting for their secondary set of teeth to erupt, however, were at high risk.</li> <li>2. The mottled enamel disorder was prevalent among the children of Bauxite, but nonexistent in another town only five miles away. By looking at the water supply, the only difference was that the water supply in Bauxite did not contain fluoride but the other towns did.</li> </ol>	<p><b>Slide #8</b>  <b>Note:</b> Dr. G.V. Black is known as one of the founders of Modern Dentistry.</p> <p>In other words, kids were more at risk for fluorosis.</p> <p><b>Q:</b> Can anyone guess why this is?  <b>A:</b> Fluoridated water supply</p> <p>Now many of you are wondering why this stain is happening since Fluoride is good for the teeth. This is because back then, the water contained a surplus amount of Fluoride. A lot more than the optimal amount we know today.</p>
3 minutes	<p><b>D. What is Fluoride?</b></p> <p>Fluoride is a mineral that occurs naturally in soil, water, and food. To achieve the maximum cavity prevention benefit from fluoride, fluoride must be made available in two forms so that it can be ingested (systemic) and applied to the surfaces of teeth (topical). Patient options for receiving fluoride include:</p> <ul style="list-style-type: none"> <li>● Prescription-strength fluorides that are applied in the dental office</li> <li>● Prescription-strength fluoride tablets</li> <li>● Over-the-counter fluoride products for home use</li> <li>● Consumption of fluoridated bottled or community water</li> </ul>	<p><b>Slide #9</b> What is fluoride?</p> <p><b>Q:</b> Does anyone know of any prescription strength fluoride toothpastes that only dental offices sell?  <b>A:</b> Students can answer Fluoridex, Prevident, Clinpro</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
4 minutes	<p><b>E. How Does It Work?</b></p> <p>Fluoride reaches the enamel and dentin in two ways:</p> <ol style="list-style-type: none"> <li>1. <b>Systemic fluoride</b> is ingested in water, food, beverages, or supplements. The fluoride is absorbed through the intestine and is transported through the bloodstream to the tooth tissues.</li> <li>2. <b>Topical fluoride</b> is applied directly to the exposed surfaces of the teeth through the use of fluoridated toothpastes, mouth rinses, gels, foams, and varnishes.</li> </ol> <p>Once in the tooth tissues, fluoride slows demineralization, enhances remineralization in enamel, and makes the enamel more acid resistant.</p> <p>Fluoride can affect the tooth tissue in the pre-eruptive and the post-eruptive stages. Pre-eruptively, the teeth are made stronger by fluoride as a component of the fluid that surrounds the developing teeth and systemically before birth through the mother. Post-eruptively, fluoride is provided topically and systemically.</p>	<p><b>Slide #10</b> How Does It Work?</p> <p><b>Note:</b> Systemic fluoride like fluoridated water.</p> <p><b>Slide #11</b></p>
	<p><b>F. Common Misconceptions</b></p> <p><i>“Fluoride doesn’t belong in drinking water.”</i></p> <p>Fluoride occurs naturally in water, though rarely at the optimal level to protect teeth.</p>	<p><b>Slide #12</b> Common Misconceptions</p> <p>It’s already there. Fluoride exists naturally in virtually all water supplies and even in various brands of bottled water. If the people making this statement truly believed it, they would no longer drink water or grape juice — or eat shellfish, meat, cheese or other foods that contain trace levels of fluoride.</p>



TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p><i>“Fluoridation is a freedom of choice issue. People should choose when or if they have fluoride in their water.”</i></p> <p>Fluoridation is a public health measure where a modest community-wide investment benefits everyone.</p>	<p>What’s at issue is the amount of fluoride in water. There are proven benefits for public health that come from having the optimal level of fluoride in the water — just enough to protect our teeth. Our goal is to get just enough to help all of us keep our teeth longer</p> <p>Fluoride exists naturally in virtually all water supplies, so it isn’t a question of choosing to get fluoride. The only question is whether people receive the optimal level that’s documented to prevent tooth decay. Maintaining an optimal amount of fluoride in water is based on the principle that decisions about public health should be based on what is healthy for the entire community, not based on a handful of individuals whose extreme fears are not backed by scientific evidence.</p>
	<p><i>“Fluoridation causes cancer and other serious health problems.”</i></p> <p>Leading health and medical organizations agree: fluoridated water is both safe and effective.</p>	<p>The American Academy of Family Physicians, the Institute of Medicine and many other respected authorities endorse water fluoridation as safe. The CDC reports that panels of experts from different health and scientific fields have provided strong evidence that water fluoridation is safe and effective.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
2 minutes	<p><b>G. Types of Fluoride</b>  The term “fluoride” in the context of dental hygiene products refers to compounds that contain Fluorine in an anionic form. Two of these compounds are:</p> <ol style="list-style-type: none"> <li>1. Stannous Fluoride (SnF<sub>2</sub>)</li> <li>2. Sodium Fluoride (NaF)</li> </ol> <p><b>H. Difference between SnF<sub>2</sub> and NaF</b></p> <p>Stannous Fluoride (SnF<sub>2</sub>)</p> <ul style="list-style-type: none"> <li>• Fights plaque and gingivitis</li> <li>• Provides long-lasting antibacterial action</li> <li>• Protects against sensitivity</li> <li>• Fights cavities</li> <li>• Helps prevent dental erosion</li> </ul> <p>Sodium Fluoride (NaF)</p> <ul style="list-style-type: none"> <li>• Whitens by extrinsic stain removal</li> <li>• Helps prevent stains</li> <li>• Inhibits calculus</li> </ul>	<p>More than 3,200 studies or reports had been published on the subject of fluoridation. Opponents usually cite a 2006 study when they raise the cancer issue, but they omit the fact that the author of this study called it —an exploratory analysis. Instead of measuring the actual fluoride level in bone, this 2006 study relied on estimates of fluoride exposures that could not be confirmed, which undermines the reliability of the data</p> <p><b>Slide #13</b> Types of Fluoride  <b>Note:</b> These are the most popular sources of fluoride globally and are accepted by the US FDA as clinically effective.  Sn stands for tin.</p> <p><b>Slide #14</b> Graph showing difference between stannous and sodium  <b>Note:</b> Both formulations can strengthen tooth enamel and fight dental caries, but stannous fluoride is more capable of resisting bacterial acids. In addition, it has antimicrobial properties. This means it can kill off the bacteria that cause it in the first place.  Also, stannous fluoride reduces teeth hypersensitivity, which is why it’s often prescribed for patients who</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p><b>I. Topical Fluoride Applications</b></p> <ol style="list-style-type: none"> <li>1. Fluoride Tray</li> <li>2. Fluoride Varnish</li> </ol> <p><b>J. Different Fluoride Gel/Foam for Tray Application</b></p> <ol style="list-style-type: none"> <li>1. 2.0% Sodium Fluoride (Neutral) <ol style="list-style-type: none"> <li>a. Not as strong as APF</li> <li>b. Good for anyone</li> <li>c. 9,000 ppm Fluoride</li> <li>d. Most often used in adults</li> </ol> </li> <li>2. 1.23% APF (Acidulated Phosphate Fluoride) <ol style="list-style-type: none"> <li>a. A little more stronger/acidic</li> <li>b. Mostly used with children</li> <li>c. Indicated for patients with no/very little composites/crowns/sealants.</li> <li>d. OK for stainless steel crowns and amalgam fillings</li> <li>e. 12,300 ppm Fluoride</li> <li>f. Worsen tooth sensitivity</li> </ol> </li> </ol>	<p>are sensitive to foods that are hot, cold, sweet, or acidic.</p> <p><b>Q:</b> If a patient has gum disease, sensitivity, and is prone to caries, which fluoride would they benefit from?</p> <p><b>A:</b> Stannous</p> <p><b>Slide #15</b> Topical Fluoride Applications</p> <p><b>Note:</b> Picture of both displayed.</p> <p>FDAs can apply fluoride in two ways: tray and varnish. We will go over the procedure for both later on. Varnish is 22,600 ppm.</p> <p><b>Slide #16</b> NaF vs APF</p> <p><b>Note:</b> Does not etch any restorations</p> <p>Can cause damage to composites, porcelain/PFM crowns, sealants.</p>
4 minutes	<p><b>II. Pros and Cons</b></p>	

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
4 minutes	<p><b>A. Pros</b></p> <p>Who would benefit from fluoride treatment? Those that present:</p> <ul style="list-style-type: none"> <li>• High caries risk</li> <li>• Enamel sensitivity</li> <li>• Recession</li> <li>• Restorative work</li> <li>• Orthodontic treatment</li> </ul>	<p><b>Slide #17</b> Pros</p> <p><b>Note:</b> Most insurances cover fluoride treatments only up to the age of 18. I still always ask the patients if they are interested in it due to the benefits.</p> <p>Fluoride can help protect the margins of crowns and bridges, ultimately protecting their investment.</p>
	<p><b>B. Cons</b></p> <ul style="list-style-type: none"> <li>• There are really no cons for fluoride treatment.</li> <li>• Just be aware of those with tree nut allergies and fluoride varnish.</li> </ul>	<p><b>Slide #18</b> Contraindications</p> <p><b>Note:</b> This is because fluoride varnish contains rosin (colophony), the sap that comes from pine and spruce trees.</p> <p><b>Q:</b> Why are composites, porcelain and PFM crowns, and sealants contraindicated for the APF tray?</p> <p><b>A:</b> They can etch</p>
	<p><b>III. Infection Control</b></p> <p><b>A. Infection control</b></p> <p>While applying the fluoride treatment to patients, whether it's tray or varnish, it's important to practice infection control. Be sure to make sure you have everything you need before you proceed with the fluoride treatment.</p>	<p><b>Slide #19</b> Infection Control</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p>Ensure you have safety glasses for yourself and your patient to prevent any splatter. Place the bib on the patient. Properly dispose of everything that can be disposed of and be sure to wipe the varnish bottle with disinfectant wipes.</p> <p>OVERGLOVES! Everything on your tray is sterile. Use your overgloves to grab anything that is not a part of your tray (ex. fluoride gel/foam bottle).</p> <p><b>B. Ergonomics</b></p> <p>Just like any other dental procedure, it is important to make sure you and the patient's body positions are ergonomically correct.</p> <p>Fluoride tray: Bring patient up to you</p> <p>Fluoride varnish: Apply the varnish while the patient is lying back. Remain sitting in your operator chair.</p>	<p><b>Slide #20</b> Ergonomics</p> <p><b>Note:</b> Move the patient chair up so you don't have to bend down.</p>
4 minutes	<p><b>IV. Procedure</b></p> <p><b>A. Tray Armamentarium</b></p> <ol style="list-style-type: none"> <li>1. Patient's dental record</li> <li>2. Mouth mirror</li> <li>3. Patient Bib</li> <li>4. Saliva ejector</li> <li>5. Air/water syringe tip</li> <li>6. Patient and operator protective eyewear</li> <li>7. Fluoride (NaF or APF)</li> <li>8. Disposable tray(s)</li> <li>9. 2x2 gauze</li> <li>10. Tongue depressor/blade</li> </ol>	<p><b>Slide #21</b> Tray Armamentarium</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<b>B. Tray Procedure</b>	<b>Slide #22</b> Tray procedure
	1. Collect appropriate armamentarium.	<b>Note:</b> Follows along with the process grade sheets In other words:
	2. Checks patient medical history for contraindications.	
	3. Explain rationale and procedure to the patient.	3. Explain benefits to patient or patient's parent/guardian.
	4. Select appropriate fluoride.	4. APF or NaF
	5. Select and fit the tray to the patient's mouth.	
	6. Dry and load sufficient amount of fluoride.	5.Small/medium/large trays Compare to fitting impression trays - any trays that were tried but not used should still be disposed of.
	7. Dry teeth prior to application.	6. Fill tray about 3rd full. Evenly distribute.
	8. Position trays.	7. Can use air/water syringe to dry
	9. Insert saliva ejector and instruct patient to gently close and hold for 4 minutes.	9. Move saliva ejector around every so often to get the excess saliva pooled at the sides of the mouth.
	10. Remove tray and evacuate excess fluoride and saliva.	
	11. Examine gingival tissues for possible reactions.	11. Use the mouth mirror and look for any redness or sloughing of tissue. If there is, mention it in the patient's clinical note for next time.
	12. Instruct patient not to eat, drink, smoke, rinse, or brush for at least 30 minutes.	
	13. Use technique for maximum accessibility, visibility (i.e. light, patient/operator positioning),	<b>Q:</b> Why do we tell patients not to eat, drink, smoke, rinse, or brush?

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	infection control, fulcrum throughout procedure	<b>A:</b> It will take off and disrupt the fluoride process. Fluoride ions will continue to uptake in the enamel
	14. Student adequately explains technique and rationale for procedure.	<b>Slide #23</b> Video of applying tray <b>Note:</b> She mentions 1 minute is long enough but due to our process sheet, stick with 4 minutes.
5 minutes	<b>C. Varnish Armamentarium</b> <ol style="list-style-type: none"> <li>1. Patient's dental record</li> <li>2. Patient Bib</li> <li>3. Saliva ejector</li> <li>4. Air/water syringe tip</li> <li>5. Patient and operator protective eyewear</li> <li>6. Fluoride varnish (single use)</li> <li>7. 2x2 gauze</li> </ol>	<b>Slide #24</b> Varnish Armamentarium
	<b>D. Varnish Procedure</b> <ol style="list-style-type: none"> <li>1. Explain rationale and procedure to the patient.</li> <li>2. Collect appropriate armamentarium.</li> <li>3. Remove foil from unit dose container.</li> <li>4. Remove applicator brush and stir varnish thoroughly.</li> <li>5. Lightly dry teeth with air or gauze.</li> <li>6. Apply varnish to teeth with a brush applicator using light strokes.</li> <li>7. Instruct patient to eat only soft foods for 2 hours; avoid alcoholic beverages and alcohol containing mouthwashes for at least 4 hours.</li> <li>8. If applicable, parent is instructed to interrupt the use of fluoride tablets for 2-3 days after treatment.</li> </ol>	<b>Slide #25</b> Varnish Procedure <b>Note:</b> Follows along with process grade sheet In order words: 1. Check medical history. <b>Q:</b> What is a contraindication for fluoride varnish application? <b>A:</b> Tree nut allergy  6. Fulcrum  7. This is to ensure the fluoride stays on for maximum effect.

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p>9. Use technique for maximum accessibility, visibility (i.e. light, patient/operator position), infection control, fulcrum throughout procedure.</p>	<p><b>Slide #26</b> Video of applying varnish  <b>Note:</b> In video, woman says to check package to see if teeth need to be dried or not. For sake of process grading, have students dry teeth.</p> <p>Stop video after she mentions explaining post-op to patient.</p>
	<p><b>E. Varnish Advantages</b></p> <p>Fluoride varnish is beginning to replace gels and foams as the agent of choice for professional application, for several reasons:</p> <ul style="list-style-type: none"> <li>• It does not require that the teeth be carefully dried prior to application.</li> <li>• It adheres to crown surfaces on contact.</li> <li>• It does not require a delivery tray and extra time in contact with the teeth.</li> <li>• Those with gag reflexes do better with the varnish as opposed to the tray.</li> <li>• Patients are less likely to swallow excess fluoride because the thin layer for varnish stays in place after application, and its presence is less noticeable to the patient.</li> </ul>	<p><b>Slide #27</b> Advantages of Varnish</p>
	<p>V. CLOSURE</p>	



TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>A. <u>Summary of Major Points - Relate Back to Objectives</u></p> <p>I hope that you now have a better understanding of fluoride and how to demonstrate it correctly. I hope that you can take what you have learned today and use this to provide treatment and information to your patients. You will come across patients who are unaware of the benefits of fluoride and some who are even misinformed. I encourage you to know the rationale and benefits of fluoride to help educate patients.</p> <p><u>Provide a Sense of Accomplishment</u></p> <p>I hope you will be more comfortable educating patients about fluoride and you will be able to demonstrate fluoride application, whether tray or varnish, and determine when a patient needs fluoride treatment.</p> <p>B. <u>Assignment:</u></p> <p>For a better understanding of our topic today you should:</p> <ol style="list-style-type: none"> <li>1. Explore websites listed on your handout</li> <li>2. Search magazines for current articles in various journals</li> <li>3. Practice on a typodont or with a partner.</li> </ol>	<p><b>Slide #28</b> Objectives</p> <p><b>Q:</b> Why do we recommend fluoride to patients?</p> <p><b>A:</b> Students should answer somewhere along the lines of “it helps remineralize the teeth and prevent caries”.</p> <p><b>Q:</b> Do you all feel more confident about fluoride and applying it? Why?</p> <p><b>A:</b> Now I know the rationale for fluoride treatment, know the armamentarium needed, and can properly demonstrate it.</p> <p><b>Slide #29</b> References and websites to explore:</p> <p><b>Note:</b> Also listed in handout.</p>
6 minutes	<p><b>CRITICAL THINKING ACTIVITY</b></p> <p><b>Case:</b> Josh is a 5 year old patient who is at high risk of caries and already has several stainless steel crowns. His mom wants to</p>	<p><b>Slide #30</b> Critical Thinking Activity</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
	<p>know if he should get the fluoride treatment since they do not have fluoridated water. The only thing listed in his medical history is an allergy to tree nuts.</p>	
	<p>1. Would it be in Josh's best interest to receive fluoride treatment? Why?  Answer: Yes. He is young, high caries risk, and does not get fluoride at home via water supply.</p>	<b>Slide #31</b> Question 1
	<p>2. Would you recommend the tray or varnish treatment and why?  Answer: Tray because he has a tree nut allergy and that is contraindicated for varnish treatment.</p>	<b>Slide #32</b> Question 2
	<p>3. You decide to do the tray treatment. Would you use NaF (Neutral) or APF fluoride for Josh? Why?  Answer: APF. It is stronger and he does not have any porcelain/composites, just stainless steel crowns.</p>	<b>Slide #33</b> Question 3
	<p>4. What post-op care would you give Josh and his mom?  Answers: Do not eat or drink anything for at least 30 minutes.</p>	<b>Slide #34</b> Question 4

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A

## Test Questions

1. **Objective #1:** Identify the rationale for fluoride application and selection.

**Test Item:** All of the following are delivery types of fluoride **EXCEPT** one. Which is the **EXCEPTION**?

- a. Fluoridated water
- b. Hereditary/genetic
- c. Tray application
- d. Varnish application

2. **Objective #2:** Determine the indications and contraindications for fluoride application.

**Test Item:** All of the following are indications for fluoride treatment **EXCEPT** one. Which is the **EXCEPTION**?

- a. Existing restorative work
- b. Generalized sensitivity
- c. High caries risk
- d. Low caries risk

3. **Objective #3:** Demonstrate correct procedure for tray and varnish fluoride application.

**Test Item:** All of the following are part of the varnish armamentarium **EXCEPT** one. Which is the **EXCEPTION**?

- a. Air/water tip
- b. Saliva ejector
- c. Tray
- d. Varnish (single unit container)

4. **Objective #4:** Maintain proper infection control and body positioning throughout procedures.

**Test Item:** Your classmate, Mary, is practicing the fluoride tray procedure on you from start to finish. Mary grabs a tray that she assumes fits you. While preparing the tray, you notice that she uses her clean gloves that she has on to grab the fluoride foam from the clinic cabinet. After filling the tray, she prepares to put the tray in. With the gloves that she touched the clinic cabinet and foam bottle with, she puts the tray in your mouth. She doesn't put the tray all the way in and even if she did, it seems like the tray is not the right size. When it's in, she still has you in a reclining position and the foam is running down your throat the whole time. When it's over, Mary asks how she did and if she did anything wrong. What would you correct her on?

5. **Objective #1:** Identify the rationale for fluoride application and selection.

**Test Item:** In one paragraph (3-4 sentences), indicate your personal commitment to establishing preventative dental care to your patients. Be sure to mention the use of fluoride and why it is beneficial to patients.

Correct Answers:

1. B

2. D

3. D

4. Mary should have grabbed different size trays and tried them on before the procedure to ensure that it will fit. Instead of taking off her gloves or using an overglove, Mary used the same glove that touched the clinic cabinet and foam bottle and put it in the patient's mouth. This is a big error in infection control. The gloves you wear are only supposed to touch the patient's mouth and anything that's sterile on your tray. The patient's positioning is also incorrect. Instead of reclining back, the patient should be sitting up straight to prevent foam/gel from running down the back of their throat.

5. As a dental provider, I will be sure to educate my patients on the benefits of fluoride and preventative dentistry. It is my duty to give my patients the resources they need to change or modify any negative behaviors related to their oral health. I will remain compassionate to my patient's views but also tell them the scientific evidence of the benefits of fluoride. The goal of preventative dental care is to maintain good oral health and prevent diseases, like decay and periodontitis.