

## Coronal Polishing Lesson Plan

**Course:** DAE 101

**Topic:** Coronal Polishing

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

### Instructional

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

1. Discuss the history of coronal polishing.
2. Determine the indications and contraindications for coronal polishing.
3. Demonstrate correct procedure for coronal polishing.
4. Identify selective polishing rationale.
5. Indicate a commitment to using proper infection control.

**Materials:** PowerPoint computer equipment  
Handout

### References:

ADA Dental Product Guide. Available at: <https://www.premierdentalco.com/wp-content/uploads/2015/01/ADA-Dental-Product-Guide-2018.Vol-6.Issue-5-EPPP.pdf>. Accessed March 1, 2022.

Coronal polishing: Indications and contraindications for dental assistants. Available at: <https://www.dentistryiq.com/dental-assisting/career-enhancements/article/16365905/coronal-polishing-indications-and-contraindications-for-dental-assistants>. Accessed February 26, 2022.

Coronal polishing for the dental assistant. Available at: [https://www.dent-ed-online.com/multimedia/coronal%20polishing/faculty\\_summary.pdf](https://www.dent-ed-online.com/multimedia/coronal%20polishing/faculty_summary.pdf). Accessed February 26, 2022.

Hottel, Timothy. Dentistry for the Restorative Expanded Function Dental Auxiliary. July 15, 2020. Pgs 195-198.

Intrinsic vs Extrinsic Tooth Stains. Available at <https://www.rwatsondds.com/blog/2018/08/08/intrinsic-vs-extrinsic-tooth-stains-192463>. Accessed March 4, 2022.

Selective Polishing. Available at <https://www.aegisdentalnetwork.com/ida/2009/12/selective-polishing>. Accessed March 4, 2022.

**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>Coronal polishing is defined as the procedure that removes plaque and stain from the coronal surfaces of the teeth. Many patients associate this with the “clean and shiny feeling” and the conclusion of most dental prophylaxis appointments.</p> <p><b>B. Established Mood</b>  By attending today’s lecture, you are showing a great deal of responsibility to yourself as well as your patients. Demonstrating proper coronal polishing and infection control will benefit your patients. Today we will learn about the correct method of polishing, indications and contraindications, and rationale for selective polishing.</p> <p><b>C. Gain Attention/Motivate</b>  Imagine you get your teeth cleaned. What is one thing that comes to your mind when it comes to the cleaning procedure? Most often, people associate cleanings with the “clean and shining” feeling after we polish them. But it is a little bit more than that.</p>	<p><b>Slide #1</b> Title</p> <p><b>Slide #2</b> Intro</p>
2 minutes	<p><b>D. Established Rational</b>  By understanding the proper method of coronal polishing and indications for it, Expanded Function Dental Assistants can engage in this procedure for patients.</p> <p><b>E. Established Knowledge Base</b>  Coronal polishing is not for everyone. Does anyone know who would benefit from getting polished? Indications include extrinsic staining and soft plaque accumulation.</p>	

**TIME****LESSON CONTENT****NOTES****F. Instructional Objective**

After today's lecture, you should be able to discuss the history of coronal polishing, determine the indications and contraindications for coronal polishing, demonstrate correct procedure for coronal polishing, identify selective polishing rationale, and indicate a commitment to using proper infection control.

**Slide #3** Objectives

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
4 minutes	<p><b>I. Coronal Polishing</b></p> <p><b>A. Definition:</b> A procedure designed to make the tooth free of plaque and extrinsic stains. The process of achieving a smooth, mirror-like enamel or material surface that reflects light and is characterized as having a high luster.</p> <p><b>B. Why is coronal polishing part of the dental treatment?</b> Polishing can create a smooth tooth surface that is less likely to retain plaque, calculus, and stain, remove extrinsic stains, enhance fluoride absorption and discourage the buildup of new deposits, and prepare teeth for various dental procedures.</p> <p><b>C. Indications</b></p> <p>Removal of light stain and light plaque, placement of sealants, dental dams, orthodontic bands and brackets, and placement of crowns and bridges, removal of temporary cement residues, and surface cleaning before the selection of a tooth shade guide</p>	<p><b>Slide #4</b> Coronal polishing <b>Note:</b> This definition is from the American Dental Association (ADA). In the book, they refer to it mainly as a cosmetic benefit.</p> <p><b>Slide #5</b> Why is coronal polishing part of the dental treatment? <b>Note:</b> Coronal polishing is not a substitute for dental prophylaxis. Coronal polishing does not remove calculus. Only a thorough dental prophylaxis can remove calculus.</p> <p><b>Slide #6</b> Indications for coronal polishing <b>Q:</b> Does anyone know the indications for coronal polishing? <b>A:</b> Students should answer 1 of the 8 choices. <b>Q:</b> Does anyone know the reason why we polish before placing sealants or any restorations? <b>A:</b> To ensure we have a clean surface to ensure the sealant/restoration will stick.</p>
3 minutes	<p><i>D. Contraindications</i></p> <p>Absence of stain, root caries, demineralized spots gold, composite, acrylic veneers, porcelain restorations, avoid reintroduction of bacteria immediately after SRP, and patients with respiratory and infectious diseases, intrinsic stain, recession with tooth sensitivity, demineralized areas or thin enamel as in amelogenesis imperfecta, newly erupted teeth as the surfaces have not been fully mineralized yet, areas of exposed cementum and dentin, and allergic reaction to latex or any other ingredients in the prophyl paste.</p>	<p><b>Slide #7</b> Contraindications for coronal polishing part 1 <b>Note:</b> #5 can be done at succeeding appointments. The coarseness of the prophyl paste can irritate the gums.</p> <p>#6 is because polishing creates aerosols. <b>Q:</b> What is an example of a respiratory disease? <b>A:</b> Students should answer COPD, emphysema, cystic fibrosis, etc.</p> <p><b>Note:</b> Emphasize medical history</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p><b>E. Intrinsic vs Extrinsic Staining</b>  Intrinsic staining is the discoloration of the tooth exists on the inner layer of the tooth, or the dentin. Extrinsic staining is a superficial discoloration that affects the outermost layer of a tooth.</p> <p><b>F. Intrinsic Staining</b>  Intrinsic staining includes fluorosis and tetracycline staining.</p> <p><b>G. Extrinsic Staining</b>  Extrinsic staining includes tobacco, tea/coffee/red wine, green stain, orange stain, and black line stain</p>	<p><b>Slide #8</b> Contraindications for coronal polishing part 2</p> <p>#9 Decalcified or demineralized areas appear chalky white.  #8 and 11 can cause more sensitivity to patients.  <b>Note:</b> Excessive or unnecessary polishing can remove the fluoride-rich, outermost layer of enamel making it more susceptible to caries.</p> <p><b>Slide #9</b> Picture of Demineralization</p> <p><b>Slide #10</b> Intrinsic vs extrinsic stain</p> <p><b>Note:</b> Intrinsic staining is more permanent in nature than extrinsic staining. Polishing will not get rid of them.</p> <p><b>Q:</b> Can anyone give me an example of what might cause extrinsic staining?  <b>A:</b> Tobacco, coffee, tea, red wine, poor oral hygiene</p> <p><b>Slide #11</b> Intrinsic staining</p> <p><b>Note:</b> Fluorosis is caused by taking in too much fluoride over a long period when teeth are forming under the gums.  Tetracycline staining is when tetracycline is ingested while a patient is pregnant.</p> <p><b>Slide #12</b> Extrinsic staining</p> <p><b>Note:</b> Green and orange stain is from poor OH and black stain is not.  There is no documented reason for the cause of black line stain, however, it does usually appear in women more.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
4 minutes	<p>II. <b>Selective Polishing</b></p> <p><b>A. What is selective polishing?</b></p> <p>Selective polishing refers to polishing only those patients who present a need (extrinsic stain or visible biofilm).</p>	<p><b>Slide #13</b> Pictures of green stain, orange stain, and black line stain</p> <p><b>Slide #14</b> What is Selective Polishing?</p> <p><b>Q:</b> Who would benefit from polishing?</p> <p><b>A:</b> Those with stains that cannot be removed by instrumentation.</p> <p>According to the American Academy of Periodontology and other sources, polishing for approximately 30 seconds with a prophylactic paste containing pumice can remove between 0.6 µm and 4 µm of the outer enamel.</p>
2 minutes	<p><b>B. What teeth should we polish then?</b></p> <p>Those with extrinsic stain that cannot come off with instrumentation and heavy plaque/soft build up.</p> <p>III. <b>Infection Control</b></p> <p><b>A. Infection control</b></p> <p>Coronal polishing can causes: direct and indirect transmission of diseases so it is important that we maintain infection control before, during, and after the procedure.</p> <p>Make sure to have safety glasses for you and your patient to prevent splatter during polishing.</p> <p><b>B. Care for Handpiece</b></p> <p>1. Once the coronal polishing is completed and it is time for clean up, disconnect the dental handpiece from the line and dispose of the prophy angle.</p> <p>2. On the end of the hand piece are two tubes. The smaller (usually gold) tube needs a few drops of oil before sterilization.</p>	<p><b>Slide #15</b> What teeth should we polish then?</p> <p><b>Slide #16</b> Infection control</p> <p><b>Slide #17</b> Care for handpiece</p> <p><b>Note:</b> Compare it to oiling your car.</p> <p><b>Q:</b> Why do we lubricate the hand piece?</p> <p><b>A:</b> Increased friction causing the handpiece to not last as long. Also to hydrate the handpiece after it has been in the autoclave.</p>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>3. Package the handpiece and it is ready to be sterilized.</p> <p>IV. <b>Procedure</b></p> <p><b>A. Armamentarium</b></p> <ol style="list-style-type: none"> <li>1. Patient's dental record</li> <li>2. Mouth mirror</li> <li>3. Explorer</li> <li>4. Patient Bib</li> <li>5. Saliva ejector</li> <li>6. Air/water syringe tip</li> <li>7. Patient and operator protective eyewear</li> <li>8. Disclosing agent</li> <li>9. Patient face mirror</li> <li>10. Low speed handpiece with prophyl angle and rheostat</li> <li>11. Rubber prophyl cup</li> <li>12. 2x2 gauze</li> <li>13. Dental floss and dental tape (floss threader when indicated)</li> </ol>	<p><b>Slide #18</b> Armamentarium</p> <p><b>Note:</b> List was provided via book. Prophyl cups come in different sizes, strengths, and textures. Prophyl paste comes in different consistencies - fine, medium, coarse, and coarse plus</p>
4 minutes	<p><b>B. Technique</b></p> <ol style="list-style-type: none"> <li>1. Determine that the patient's dentist of record has authorized that coronal polishing is indicated for the patient. Also, take notice of any exceptions or limitations as to which materials may be used or any other precautions needed for that patient.</li> <li>2. Have all armamentarium set up in the dental delivery unit. Attach a low speed handpiece with prophyl angle with rheostat in place.</li> <li>3. Seat the patient comfortably in the dental chair. The patient should be in a reclining position with the neck well supported. For polishing of maxillary teeth, the headrest may be positioned so that the patient's chin is tilting upward. For polishing mandibular teeth, the headrest may be positioned so that the lower jaw is approximately parallel to the floor.</li> </ol>	<p><b>Slide #19</b> Technique</p> <p><b>Note:</b> Follows along in book</p> <p>In order words:</p> <ol style="list-style-type: none"> <li>1. Ensure the doctor has authorized you to coronal polish. Review medical history with patient.</li> <li>2. (Good as said in book)</li> <li>3. For optimal view of the surfaces, patient's chin is up to see maxillary teeth and patient's chin is down to see mandibular teeth.</li> </ol>
4 minutes	<ol style="list-style-type: none"> <li>4. Apply the patient bib to the patient.</li> <li>5. Place protective eyewear on the patient.</li> <li>6. Operator positioning - The right-handed operator is positioned approximately at the 8-9</li> </ol>	<p><b>Slide #20</b> Figure 12-2</p> <p><b>Slide #21</b> Technique</p> <ol style="list-style-type: none"> <li>4. (Good as said)</li> <li>5. (Good as said)</li> <li>6. Refer to picture</li> </ol>
4 minutes		<p><b>Slide #22</b> Technique</p> <ol style="list-style-type: none"> <li>7. This is where the set up for selective polishing takes place.</li> </ol>

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
5 minutes	o'clock position; the left-handed operator at the 3-4 o'clock position.	8. (Not learning disclosing solution - briefly mention)
	7. Visually inspect the patient's mouth - both teeth and gingiva. Look for areas of stain that will need removal. Any hard surface accretions (such as calculus) must be removed first by the dentist or dental hygienist. Take notice of areas of gingival recession.	9. (Good as said)
	8. If allowed by law in your state, disclosing liquid or tablet may be given to the patient. This should be done prior to polishing. The patient should be seated in an upright position and given a hand held mirror in order to visualize the areas of plaque accumulation. Oral hygiene instruction should be given at this time. The patient should demonstrate to the operator their ability to properly brush and floss the disclosed plaque surfaces.	
	9. A systematic approach for stain removal should be used. It is not critical whether the maxillary stained surfaces or mandibular stained surfaces are polished first; what is important is that a systematic approach is used so that no indicated areas are overlooked.	<b>Slide #23</b> Technique
	10. Apply the selected polishing agent to the inside of the rubber cup or to the tip of the bristle brush by gently rotating the cup or brushing over the paste. Bristle brushes are advantageous in posterior occlusal surfaces with deep fissures and/or grooves. They should not be used on other tooth surfaces. The selection of prophy paste should be based on the degree of stain. Pastes and abrasive agents are available in a range of grits - from superfine to extra coarse. Coarse pastes should not be used on teeth. Always use a wet polishing agent.	10. Apply paste to the rubber cup by brushing over the paste or rotating the cup. Determine what paste the patient would benefit from.
	11. Apply some polishing agent to stained surfaces from the rubber cup or brush. Using a firm finger rest and light pressure on the teeth, and steady slow speed, polish the surfaces indicated. Follow the gingival contour and into the interproximal areas. Stay away from decalcified areas, and polish cementum and exposed dentin with minimal pressure and a non-abrasive agent. Tilt the polishing cup toward the occlusal rather than the gingival surface of the teeth.	11. FULCRUM!! It can be intraoral or extraoral, but usually intraoral is preferable. The rest is good as said.
	12. Allow the patient to expectorate into the saliva ejector as needed both for patient comfort and	12. Good as said
		13. Use floss after to get the remaining polishing agent from in between the teeth.



TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
3 minutes	<p>for operator access. Rinse with water several times as needed during the polishing procedure.</p> <p>13. Dental tape can be used to carry the remaining polishing agent into the interproximal areas. Dental floss is used to complete the procedure in order to remove residual polishing agent. The entire mouth is thoroughly rinsed with water. Inspect the mouth for completeness: all stain removed, excess polishing agent eliminated, and no damage to gingiva, cheeks, and lips. Clean the patient's face of any debris or splatter with a damp tissue.</p>	<p><b>Slide #24</b> Video of coronal polishing</p> <p><b>Slide #25</b> Picture of process grade sheet</p> <p><b>Slide #26</b> Objectives</p> <p><b>Q:</b> Why do we selective polish?  <b>A:</b> To ensure that only the teeth that can benefit from polishing will be polished.</p> <p><b>Q:</b> Do you all feel more confident about coronal polishing? Why?  <b>A:</b> Now know the reasoning behind coronal polishing and selective polishing, know the armamentarium needed, and can properly demonstrate it.</p>
	<p>V. CLOSURE</p> <p>A. <u>Summary of Major Points - Relate Back to Objectives</u></p> <p>I hope that you now have a better understanding of coronal polishing and how to demonstrate it correctly. I hope that you can take what you have learned today and use this to provide treatment to your patients. When patients think of cleanings, they mainly think about the polishing. I encourage you to follow the correct steps and infection control.</p>	
	<p><u>Provide a Sense of Accomplishment</u></p> <p>I hope you will be more comfortable and able to demonstrate coronal polishing and determine when a patient needs polishing.</p>	<p><b>Slide #27</b> References and websites to explore:</p> <p><b>Note:</b> Also listed in handout.</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>	

TIME	LESSON CONTENT	NOTES – MEDIA – Q/A
6 minutes	<p><b>CRITICAL THINKING ACTIVITY</b></p> <p><b>Case:</b> Mary came in for her last session of SRP. After the scaling, she is confused as to why her teeth are not getting polished today. When she looked in the mirror, she saw that she still has these generalized stain patterns that consist of a distinct darker brown/black line in the middle of the tooth. Not to mention, in her medical history, she writes that she has COPD.</p> <p>1. Would it be in Mary’s best interest to coronal polish after a SRP? Answer: No. The coarseness of the prophylactic paste can irritate the gums even more.</p> <p>2. What kind of staining does Mary have? Answer: Tetracycline staining</p> <p>3. Can her stain come off with coronal polishing? Answers: No because it is intrinsic.</p> <p>4. Would it be in Mary’s best interest to have coronal polish after reading her medical history?  Answer: No. She has COPD.</p>	<p><b>Slide #28</b> Critical Thinking Activity</p> <p><b>Slide #29</b> Question 1</p> <p><b>Slide #30</b> Answer</p> <p><b>Slide #31</b> Question 2 <b>Slide #32</b> Answer</p> <p><b>Slide #33</b> Question 3 <b>Slide #34</b> Answer</p> <p><b>Slide #32</b> Question 4  <b>Slide #33</b> Answer</p>

## Test Questions

1. **Objective #1:** Determine the indications and contraindications for coronal polishing.

**Test Item:** All of the following are contraindications for coronal polishing **EXCEPT** one. Which is the **EXCEPTION**?

- a. Right after SRP
- b. Demineralized spots
- c. Respiratory/Infectious diseases
- d. Light stain removal

2. **Objective #2:** Demonstrate correct procedure for coronal polishing.

**Test Item:** Armamentarium for coronal polishing includes all of the following **EXCEPT** one. Which is the **EXCEPTION**?

- a. High Speed Handpiece
- b. Low speed Handpiece / RDH
- c. Prophy angle
- d. Prophy paste

3. **Objective #3:** Identify selective polishing rationale.

**Test Item:** All of the following can be removed with coronal polishing **EXCEPT** one. Which is the **EXCEPTION**?

- a. Black stain
- b. Coffee/tea/red wine
- c. Orange stain
- d. Tetracycline stain

4. **Objective #4:** Indicate a commitment to using proper infection control.

**Test Item:** You just finished your patient and walked them out. When you come back to your operatory, how would you sterilize your RDH? Explain your answer step by step.

5. **Objective #3:** Identify selective polishing rationale.

**Test Item:** In a few short sentences, explain why we selective polish instead of polishing every tooth.

Correct Answers:

1. D

2. A

3. D

4. Remove the rotary dental handpiece (RDH) from your unit and bring it to sterilization. Put a few drops of lubricant oil into the smaller golden tube on the other end of the handpiece. Place the RDH inside a sterilization bag and place it in the autoclave or statim.

5. Excessive or unnecessary polishing can remove the fluoride-rich, outermost layer of enamel making it more susceptible to caries. We want to ensure that we are polishing the teeth that only need it (removable plaque and/or extrinsic stain).