

Lesson plan: Daily Dose of Dryness

Course: Dental Hygiene Theory 511

Topic: Xerostomia

Audience: Adult Learners (Seniors at a 55+ community meeting)

Time: 50 minutes total

- Anticipatory set= 5 minutes
- Lesson content= 40 minutes
- Summary= 5 minutes

Materials: Computer, Projector, PowerPoint slides, Samples

Instructional Objectives:

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

- Identify potential causes of dry mouth.
- Develop understanding for dry mouth causing caries.
- Outline the additional impacts of Xerostomia.
- Discuss the impacts dry mouth has on quality of life.
- Appreciate the wide variety of methods to help with symptoms.

References:

1. Admin. (202, March 16) Xerostomia – Oral Cancer Foundation *Information and resources about Oral Head and Neck Cancer*.
<https://oralcancerfoundation.org/complications/xerostomia/#:~:text=Because%20of%20their%20susceptibility%20to,the%20effects%20of%20their%20xerostomia>.
2. *Dry mouth can impact your health*. (2024, May 13). University of Utah Health | University of Utah Health. <https://healthcare.utah.edu/the-scope/health-library/all/2015/09/dry-mouth-can-impact-your-health#:~:text=Some%20medications%20that%20can%20cause%20dry%20mouth,physician%20and%20dentist%20about%20your%20dry%20mouth>.
3. Fontana, M. (2022, August). *The Tooth Decay Process: How to Reverse It and Avoid a Cavity* | National Institute of Dental and Craniofacial Research. [Www.nidcr.nih.gov. https://www.nidcr.nih.gov/health-info/tooth-decay/more-info/tooth-decay-process](https://www.nidcr.nih.gov/health-info/tooth-decay/more-info/tooth-decay-process)
4. Thomson, W. M., Lawrence, H. P., Broadbent, J. M., & Poulton, R. (2006). The impact of xerostomia on oral-health-related quality of life among younger adults. *Health and quality of life outcomes*, 4, 86. <https://doi.org/10.1186/1477-7525-4-86>
5. *Xerostomia (dry mouth)*. Cleveland Clinic. (2025, December 17). <https://my.clevelandclinic.org/health/diseases/10902-dry-mouth-xerostomia>

LESSON CONTENT	NOTES – MEDIA – Q/A
I. ANTICIPATORY SET <u>A. Introduction</u> Today we are going to discuss the topic of dry mouth and what can be done to help. Dry mouth actually affects 1 in 5 people according to the Cleveland Clinic. <u>B. Gain Attention/Motivate</u> Who here experiences dry mouth? Waking up in the middle of the night reaching for that glass of water to help soothe the desert that is now your tongue? How about medication? Does anyone take medication daily? <u>C. Activate Prior Knowledge</u> What are somethings you have done to manage your dry mouth? Who have you asked for help? <u>D. Establish Rationale</u> Today we are going to discuss how dry mouth occurs and how we can manage it. It is a very common occurrence, and we will build your arsenal with tools to help. <u>E. Present Instructional Objectives</u> After today's lecture, you should be able to: 1. Identify potential causes of dry mouth 2. Develop understanding for dry mouth causing caries 3. Appreciate the additional impacts of Xerostomia 4. Discuss the impacts dry mouth has on quality of life 5. Appreciate the wide variety of methods to help with symptoms	PP Slide #1 intro slide PP Slide #2 Desert/visuals Q: who experiences dry mouth? A: Most participants raise their hand, some may not though. PP Slide #3 objectives

LESSON CONTENT	NOTES – MEDIA – Q/A
I. Potential causes of dry mouth • Reduced signals to neurotransmitters a. Due to medications • Hypertension, allergy, asthma, antidepressants, b. List of most common medications that have dry mouth as a side effect c. Cognitive decline • Destruction of salivary glands a. Can be from drug use b. Treatment for oral cancers • Surgery or radiation • Dehydration a. Lifestyle • Smoking, vaping, excessive alcohol consumption b. Excessive exercise c. Hot climate d. Poor hydration habits e. Vomiting f. Diarrhea g. Illness • Autoimmune conditions a. Sjogrens • Not only affects the mouth but all mucous membranes in the body. Diagnosed with blood tests and biopsy.	PP slide #4 web map with dry mouth at the center and causes in bubbles surrounding PP slide #5 Medications with dry mouth side effect PP slide #6 cancer in parotid gland removed PP slide #7 farmer drinking water while tilling Q: Has anyone heard about sjogrens syndrome before? A: Most participants have not heard of this condition. If anyone is familiar they may want to share what they know. PP slide #8 definition of

LESSON CONTENT	Sjogren's syndrome
II. Dry mouth and caries Saliva has many roles in the mouth • “washing” the teeth • Maintaining a moist environment to prevent bacteria from adhering • Maintaining pH Without adequate salivary flow the pH in the mouth is unbalanced and can become acidic creating an environment for bacteria to cause demineralization. • Low pH promotes demineralization • Less saliva creates sticky surfaces for plaque to adhere • Saliva is unable to wash away food debris With food left to sit on our teeth in an acidic environment, the decay process is left unchecked. • Bacteria create acid that begins breaking down the enamel • Bacteria feed off of plaque, starches, sugars, and food remnants • Decay starts in the enamel and progresses into the dentin and possibly the pulp Many people experiencing dry mouth may have recession as well which then expedites the decay process due to the root surface being exposed so bacteria do not have to penetrate enamel.	NOTES – MEDIA – Q/A Q: How can having reduced salivary flow impact the instance of decay? A: answers will vary but include the “washing” effect saliva has in protecting our teeth. PP slide #9 pH scale for normal vs acidic mouths PP slide #10 hemi section of a tooth showing the different layers
III. Additional effects of xerostomia Effects of dry mouth do not stop at increased risk of cavities. • Discomfort ▪ Tongue can feel coarse ▪ Lips dry and cracked	

▪ Cheeks/lips sticking to the teeth LESSON CONTENT • Difficulty swallowing ▪ Without enough saliva the esophagus cannot function properly ▪ Choking hazard ▪ Dry irritated throat • Trouble speaking ▪ Lack in lubrication for the vocal cords ▪ Foamy saliva ▪ Lips sticking to teeth ▪ Tongue is working at diminished capacity • Poor taste in the mouth ▪ Lack in saliva to remove food debris between meals ▪ Possible decay starting ▪ Acidic oral environment • Altered taste in foods ▪ Taste buds rely on saliva to be hydrated and functional ▪ Acidic environment changes foods perception ▪ Lack of saliva cannot break down foods properly (first part of digestion) • Sleep disruption ▪ Discomfort causing you to wake up ▪ Dryness needing to be alleviated ▪ Dry scratchy throat ▪ Foul taste IV. Impacts of quality of life We do not realize how important saliva is until it is gone. Not being able to enjoy a meal as you once did for lack of taste or being anxious about choking while trying to swallow is a real concern many people face. • Poor social quality	NOTES – MEDIA – Q/A PP slide #11 web diagram of additional complications from dry mouth Q: Does anyone find themselves waking up in the middle of the night reaching for a glass of water to get their cheeks unstuck from their teeth? A: Most participants will nod in agreement PP slide #12 - 14 visuals of additional conditions Q. Has anyone felt embarrassment
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• Diminished confidence LESSON CONTENT • Poor sleep • Altered taste • Chance of choking/coughing • Difficulty talking • Needing frequent bathroom breaks from over hydrating X. Methods to help symptoms There is no “cure” for dry mouth unfortunately. It is how we try to manage the symptoms that can help life become more comfortable again. • Increase water intake ▪ Being more hydrated over all ▪ Small sips of water throughout the day ▪ Do not overdo it – can lead to frequent bathroom trips • Explore different medications with your doctor ▪ Trial and error ▪ Different medications may affect dry mouth less ▪ Always consult a doctor before changing medications • Softer foods ▪ Choose foods that are softer so they are easier to chew and swallow ▪ Reduce risk of choking ▪ Sauces to help moisten crunchier foods • Xylitol products ▪ A plant derived sugar that kills bacteria ▪ Draws water molecules towards it, increasing hydration ▪ Variety of options (gum, mints, lozenges) • Over the counter saliva substitutes ▪ Readily available ▪ Many brands to try ▪ Sprays to keep bed side for nighttime wake ups	when out to dinner with NOTES – MEDIA – Q/A friends or family due to a struggle to eat comfortably? A. answers will vary but can include affirmation and personal anecdotes of coughing while trying to chew or having to take sips of a drink to swallow. PP slide #15 what can be done to help? PP slide #16 arrow leading to the next item to create a circle of help PP slide #17 shows a compilation of products aimed at helping dry mouth
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- Portable and convenient

LESSON CONTENT

SUMMARY: In summation, dry mouth effects many individuals' daily lives. It can be caused from a variety of sources and trying to find your specific source can help alleviate symptoms. Simple changes in habit can provide relief and increased comfort. Management of dry mouth is critical to avoid cavities and to function more comfortably in daily life. There is a myriad of products aimed at helping with dry mouth and with trial you will be able to find the right fit for you.

NOTES – MEDIA – Q/A

PP slide #18
summary

Q: Do you feel as though you could offer support to a family member or friend if they mention to you that they experience dry mouth?

A: yes! Having this new knowledge about how dry mouth occurs and ways to combat it will help me help someone I know.

PP slide #19
references