

Lesson plan: Exploring Desiccation Therapy

Course: Dental Hygiene Theory 511

Topic: Desiccation therapy

Audience: Adult Learners (Private practice lunch and learn)

Time: 50 minutes total

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

Materials: Computer, Projector, PowerPoint slides, Samples, Typodonts, Gloves

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

1. Identify what patient conditions would benefit from desiccation therapy.
2. Verbalize the process of applying PerioDT or Hybnex.
3. Discuss the benefits of desiccation therapy for patients.
4. Create verbiage to explain desiccation therapy to patients for case acceptance.
5. Display willingness to incorporate new therapies into practice.

References:

Guignon, A. N. (2026). *Desiccation Therapy - A new frontier in managing dysbiotic oral disease*. https://www.uda.org/docs/stateututahlibraries/kenda-library/2026-desiccation-therapy---a-new-frontier-in-managing-dysbiotic-oral-disease---uda-convention---anne-guignon-rdh-mph.pdf?sfvrsn=86df4bbc_3

Khalil, B., Sulaiman, A. A., & Hajjar, B. A. (2023). The effects of adjunctive use of a desiccant agent in the treatment of stage III periodontitis (Randomized controlled clinical trial). *The Saudi Dental Journal*, 35(2), 172–177. <https://doi.org/10.1016/j.sdentj.2023.01.001>

Micu IC, Muntean A, Roman A, Stratul ȘI, Pall E, Ciurea A, Soancă A, Negucioiu M, Barbu Tudoran L, Delean AG.(2023) A local desiccant antimicrobial agent as an alternative to adjunctive antibiotics in the treatment of periodontitis: A narrative review. *Antibiotics*. 12(3):456. <https://doi.org/10.3390/antibiotics12030456>

Montoya B. (2025, March 5). Clinical Tips: Periodontal desiccation. *Registered Dental Hygienists*. <https://www.rdhmag.com/patient-care/article/55261452/clinical-tips-periodontal-desiccation>

Pardo, A., Brancato, G., Signoriello, A., Messina, E., Corrocher, G., Bellopede, V., Burlacchini, G., Signoretto, C., & Lombardo, G. (2025). Microbiological and Clinical Evaluation of the Efficacy of a Chemical Desiccant Agent in Non-Surgical Periodontal Treatment: A Randomized Controlled Clinical Trial. *Antibiotics*, 14(10), 1050. <https://doi.org/10.3390/antibiotics14101050>

LESSON CONTENT	NOTES – MEDIA – Q/A
I. ANTICIPATORY SET A. <u>Introduction</u> As we all know, periodontal disease is one of the most common diseases affecting Americans. There have been so many advancements in adjunct therapies for periodontal treatment. Today I am going to introduce the newest adjunct to support our care for patients. B. <u>Gain Attention/Motivate</u> If there was a magic liquid that could dry out bacteria and make calculus removal easier, would you want to try it out? How about a treatment that only takes one minute and destroys bacteria in areas we cannot see? C. <u>Activate Prior Knowledge</u> What are some other adjunct therapies you have used in conjunction with nonsurgical periodontal therapy? Arestin? Diode lasers? Subgingival glycine? D. <u>Establish Rationale</u> Get ready to learn about the 60 second treatment that will help provide great bacterial reduction for our patients. Studies have shown reduced anerobic bacteria levels with one treatment, and increased reduction with multiple applications. E. <u>Present Instructional Objectives</u> After today's lecture, you should be able to: • Identify what patient conditions would benefit from desiccation therapy. • Verbalize the process of applying PerioDT or Hybnex. • Discuss the benefits of desiccation therapy for patients.	PP Slide #1: Title slide: Exploring Desiccation therapy Q: Has anyone heard of desiccation therapy before? A: Answers will vary, but I expect most to be no. PP Slide #2: shows the two brands of desiccation therapy currently available, PerioDT and Hybnex. Note: all adjunct therapies provide great benefit to patients PP Slide #3: Objectives

• Create verbiage to explain desiccation therapy to patients for case acceptance. • Display willingness to incorporate new therapies into practice.	NOTES – MEDIA – Q/A PP Slide #4 images of diseased tissue/calculus build up
LESSON CONTENT II. Desiccation Therapy A. Definition: Desiccation shock occurs when the liquid or gel is applied to diseased tissue and eliminates water to cause cell destruction. B. Mechanism of Action • Draws water out of pathogens • Kills bacteria on contact • Halts inflammatory process • Biofilm detaches from tooth structure • Dries out calculus build up C. Descriptions of tissue conditions that would benefit • Bulbous • Edematous • Bleeding on probing • Moderate biofilm • Moderate calculus • Mucocitis • Periimplantitis • Burnished calculus • Exudate • Ulcers	Note: inform class this cannot be used on patients with sulphur allergies. This does not include sulfa drug allergies. Q. Can you think of a few patents that would benefit from desiccation? What have you tried to help the patient's condition so far? A. Answers will vary, but each participant can name multiple patients. This office utilizes diode lasers and subgingival glycine applications already. PP Slide #5 periimplantitis
III. Application technique: Application of product • Site selection ○ Areas previously identified above • Isolate area ○ Isodry	PP Slide #6 Hybinex product Note: blue tip is for supragingival application. Clear canula like tip is for subgingival application.

LESSON CONTENT	NOTES – MEDIA – Q/A
○ Cotton rolls ○ Low volume suction ● Dry area ○ Small bursts of air ○ Gauze if sensitive ● Dispense product supra/subgingivally ○ More is not better ○ A small bit of product may come up from the sulcus ● Allow the product to sit for 10-30 seconds ○ Blanching will be observed ● Utilize HVE to remove product ● Thoroughly rinse product off ● Complete treatment ● Reapply subgingivally after treatment is rendered ○ Blanching will occur ● Re-rinse completely	Q: has anyone applied cetacaine before? A: most participants will answer yes. This can give them an idea of what to expect when using it on patients Note: Every participant is able to have a turn applying Hybinex and getting feedback in real time.
IV. Benefits: Results from NSPT alone ● Gold standard of care for periodontal disease ● Results of NSPT in conjunction with: i) Arestin ii) Diode laser iii) Desiccation therapy iv) Subgingival irrigation Benefits of desiccation ● Softens calculus ● Penetrates deeper than scalers ● Apoptosis ● Decontaminates implant threads ● Promotes healing	PP Slide #7 AAP (American Academy of Periodontics) guidelines for perio treatment. PP Slide #8 Chart showing study out comes comparing NSPT, Arestin, Diode laser, subgingival irrigation, and desiccation. Q. Can anyone identify other adjuncts that I have not listed? A. Some additional adjuncts maybe mentioned such as subgingival airpolishing or use of subgingival cameras for better visual.

LESSON CONTENT	NOTES – MEDIA – Q/A
V. Case Acceptance While in private practice it is the hygienist’s role to explain potential treatment to patients. • Identify benefits for the patient’s specific case • Provide literature or research if possible • Provide anecdotal experiences • Foster positivity for outcomes Identify what motivates the patient when it comes to their oral health. How can you fulfill the patients needs? • Be supportive • Offer expertise • Define goals for oral health • Offer adjuncts that align VI. Display willingness to incorporate into practice • Try new products • Assess the validity of claims • Monitor outcomes for patients • Utilize the appropriate products for cases	Note: It can be difficult to “sell” patients on treatment but this is why we list the benefits to them. Q: What do you think motivates patients most when it comes to their oral health? A: Answers will vary but could include cost, results, difficulty of treatment, discomfort, or appearance. PP Slide #9 patient motivators PP Slide #10 staying current with research Q: How do you receive your newest information on periodontal products? A: Answers will vary but may include CE courses, online sources, word of mouth, or product reviews.
LESSON CONTENT	
SUMMARY: As dentistry changes so does the availability of products to help patients achieve periodontal stability. Desiccation therapy allows us to kill bacteria on contact in areas we otherwise could not access. Staying current on new practices not only	

helps your patients but productivity as well. We are able to do more for patient's periodontium now than ever. I hope that after today's lecture everyone would feel comfortable discussing the benefits of desiccation therapy and who it may help.

NOTES – MEDIA – Q/A

PP slide #11 before and after photos of treatment.
Summary.

Q: would you feel comfortable explaining the reason why a patient could benefit from this therapy?

A: Yes! After gaining knowledge on desiccation therapy I can identify who would benefit and explain how it works in detail.

PP slide #12 resources