

The History of RDA & Modern Erosive Tooth Wear



Course Author(s): Samuel St. John, PhD

CE Credits: 1 hours

Intended Audience: Dentists, Dental Hygienists, Dental Assistants, Dental Students, Dental Hygiene Students, Dental Assisting Students, Office Managers, Dental Educators

Date Course Online: 03/19/2024

Last Revision Date: N/A

Course Expiration Date: 03/18/2027

Cost: Free

Method: Self-instructional

AGD Subject Code(s): 730

Online Course: www.dentalcare.com/en-us/ce-courses/ce683

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- P&G is providing these resource materials to dental professionals. We do not own this content nor are we responsible for any material herein.
- Participants must always be aware of the hazards of using limited knowledge in integrating new techniques or procedures into their practice. Only sound evidence-based dentistry should be used in patient therapy.

Conflict of Interest Disclosure Statement

- Dr. Samuel St. John, PhD is an employee of the Procter & Gamble Company.

Short Description

Dental professionals are often times fixated on the idea that toothpaste abrasiveness is the key factor in tooth wear. This course will review the history of RDA and modern erosive tooth wear; which will demonstrate that acid-mediated tooth wear, so-called erosive tooth wear, is the dominant process for tooth loss. The course will also focus on prevention strategies to reduce the risk of erosive tooth wear.

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Overview

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Learning Objectives

Upon completion of this course, the dental professional should be able to:

- Understand the history of RDA and abrasion measurements.
- Demonstrate the clinical irrelevance of RDA values less than 250.
- Consider lifetime dentin and enamel wear amounts based on RDA and clinical studies.
- Illustrate the impact of acid on tooth wear and its amplification of tooth loss.
- Discuss strategies to reduce the risk of erosive tooth wear.

Video: The History of RDA & Modern Erosive Tooth Wear



[Click on image to view video online.](#)

Course Test Preview

To receive Continuing Education credit for this course, you must complete the online test. Please go to: www.dentalcare.com/en-us/ce-courses/ce683/test

1. What is the RDA method used for?

- A. To predict the abrasivity of toothpaste in the mouth.
- B. To determine if one toothpaste is more abrasive in the mouth when the RDA is below 250.
- C. Ensure toothpastes are safe for a lifetime of use.
- D. Compare and rank toothpaste safety for toothpaste under 250.

2. What is the RDA method designed to measure?

- A. Laboratory abrasion of a toothpaste.
- B. Clinical abrasion of a toothpaste.
- C. Stain removal
- D. Plaque removal

3. Which of the following statements is false regarding efficient cleaning abrasives?

- A. They remove a lot of stain with very little damage to the tooth surface.
- B. They have very high cleaning scores.
- C. They can have lower RDA scores.
- D. They compromise flavor.

4. Which statement is false regarding RDA laboratory testing?

- A. There is no pellicle.
- B. There is continuous brushing.
- C. Paste and brush are the only variables.
- D. You can simulate actual brushing habits.

5. It is accurate to rank toothpaste with an RDA below 250 into low, medium, high and harmful categories.

- A. True
- B. False

6. All toothpastes with a RDA value less than 250 are safe for a lifetime of use.

- A. True
- B. False

7. All toothpastes with an RDA value of 250 or below are safe for a lifetime of use, regardless of how high or low the RDA value falls within this range.

- A. True
- B. False

8. What is the primary driver of tooth wear?

- A. RDA value of dentifrice
- B. Acid interaction
- C. Toothbrush abrasion
- D. Whitening toothpaste

9. Fruit acids like citric acid is not only a source of low pH that dissolves enamel in addition it binds to _____ in the saliva making it harder to remineralize the tooth surface.

- A. calcium
- B. hydrogen
- C. fluoride
- D. phosphate

10. What does stannous (Sn) bind to on the tooth surface to form a durable layer to repel acid attack?

- A. hydroxyapatite
- B. phosphate
- C. organic matrix
- D. oxalate crystals

References

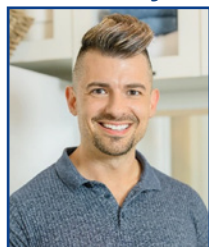
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Additional Resources

- No Additional Resources Available

About the Author

Samuel St. John, PhD



Dr. St. John has worked for P&G Oral Care R&D for over 12 years. He is interested in the invention and development of new-to-the-world oral care ingredients for the prevention and treatment of dental caries, erosion, as well as breakthrough products for the treatment of gingivitis and plaque. By understanding the fundamental mechanisms of these different processes and how they relate to one another, he believes it is possible to revolutionize how we identify new ingredients, assess their performance, and treat the world's consumers. This will lead to unparalleled innovation and healthier people. Dr. St. John has co-authored 21 peer-reviewed publications, applied for over 35 patents, and given over 40 conference talks.

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