

Oral Hard Tissue Disease and Home Care Management



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CE Credits: 1.5 hours

Intended Audience: Dentists, Dental Hygienists, Dental Students, Dental Hygiene Students

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Cost: Free

Method: Self-instructional

AGD Subject Code(s): 10, 257

Online Course: www.dentalcare.com/en-us/professional-education/ce-courses/ce661

Disclaimers:

- 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

- Robert V. Faller is a retired employee of P&G. He has no relevant financial relationships to disclose.

Introduction

The purpose of this interactive course is to provide dental practitioners and students with an overview of hard tissue disease, factors that influence the disease process and evidence-based self-care prevention practices. This course includes patient cases as knowledge point checks.

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Overview

Dental caries and dental erosion are global, prevalent issues that are largely preventable and can cause considerable pain, quality of life issues, esthetic challenges, or all. This module differentiates between caries and erosion by explaining their causes and development processes. It will then differentiate between strategies for prevention and optimal self-care.

To understand caries and erosion development, it's necessary to understand the anatomy of teeth and their environment - genetics, and human protective factors within the oral environment and external factors at play and the complex system that works together to help stop caries and help prevent erosion.

Learning Objectives

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

- Demonstrate understanding of causes of mineral loss in hard tissues of the oral cavity.
- Distinguish between mineral loss due to caries process versus the erosive tooth wear process.
- Explain human protective factors for oral hard tissue.
- Differentiate amongst common dentifrice fluoride compounds.
- Recommend self-care treatment options based on the primary causes of density loss.

Hard Tissue Health

Hard Tissue Health

This module explains and demonstrates:

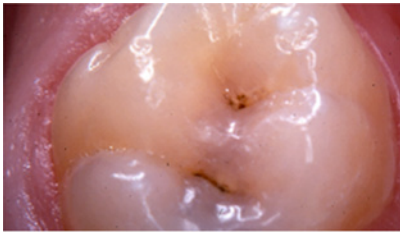
- Oral environment's role in caries and erosion
- Differences between caries and erosion

[Click on image to view interactive module 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/professional-education/ce-courses/ce661/test

1. Is this Caries or Erosion?



- A. Caries
- B. Erosion

2. Is this Caries or Erosion?



- A. Caries
- B. Erosion

3. Is this Caries or Erosion?



- A. Caries
- B. Erosion

4. Saliva provides a natural, primary protection from caries and erosion when:

- A. It is in its normal healthy state as supersaturated with calcium & phosphate
- B. It is undersaturated with Calcium and Phosphate where it pulls mineral density from tooth structure
- C. Hard tissue sites are poorly bathed with saliva
- D. Its flow is reduced such that it can't buffer (e.g due to medication or Sjogren's)

5. **The main components of the mineral apatite of Enamel are all but which?**
 - A. Calcium
 - B. Phosphate
 - C. Organic materials
 - D. Millions of Prisms made of tightly packed crystals that form rods

6. **Which one is not a risk factor for Caries?**
 - A. Plaque Biofilm
 - B. Reduced Salivary Flow
 - C. Frequent Snacking
 - D. Acquired Pellicle

7. **Which is not a risk factor for Erosion**
 - A. Plaque Biofilm
 - B. Acidic Food or Beverages
 - C. GERD
 - D. Reduced salivary flow

8. **Which fluoride is highly effective against caries and erosion?**
 - A. Amine Fluoride
 - B. Stannous Fluoride
 - C. Sodium Monofluorophosphate (SMFP)
 - D. High concentration Sodium Fluoride (ex 5000ppm)

9. **Which condition is associated with Irreversible Surface Mineral Loss where the pellicle and saliva buffer capacity is overwhelmed?**
 - A. Caries
 - B. Erosion

10. **Which condition is associated with subsurface mineral loss influenced by weak bacterial acids and is reversible in early stages?**
 - A. Caries
 - B. Erosion

11. **Which is not a prevention strategy for Caries?**
 - A. Daily plaque biofilm control
 - B. Neutralize bacterial acids
 - C. Reduce tooth solubility
 - D. Increase Snacking frequency

12. **The reason the outer layer of enamel remains sound while the subsurface layer loses mineral density is: (remin/demin Video)**
 - A. The bacterial biofilm creates a new barrier
 - B. As the Calcium and Phosphate flow toward the surface some re-precipitates at the surface
 - C. The saliva stops drawing Calcium and Phosphate out of the tooth
 - D. Fluoride only remineralizes the surface

13. **Which is not true about how Fluoride works?**
 - A. F1 helps reduce net mineral loss during demineralization
 - B. Enhances the density of the re-formed mineral
 - C. Bactericidal for *S. Mutans*
 - D. Aids in the formation of fluorapatite which is more resistant to cariogenic bacterial acids

- 14. What is the primary way to prevent erosive damage?**
- A. Dietary Counselling
 - B. High concentration fluoride
 - C. Biofilm control
 - D. Calcium Supplements
- 15. What is generally accepted to be the critical pH where net mineral density is lost from hydroxyapatite?**
- A. 6.1
 - B. 5.5
 - C. 2.3
 - D. 8.3

References

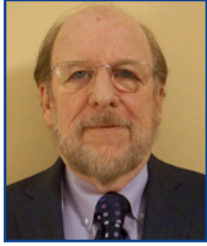
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Additional Resources

- No Additional Resources Available.

About the Author

Robert V. Faller, BS



Robert Faller has in excess of 40 years in the Oral Care Research field. He retired from P&G after more than 31 years in Oral Care, where he focused on caries and enamel related research as P&G's chief cariologist. He is editor of *Volume 17 - Monographs in Oral Science: Assessment of Oral Health - Diagnostic Techniques and Validation Criteria*. He has written 3 book chapters, published 34 papers in peer-reviewed journals and has over 100 published abstracts on fluoride, caries, dental erosion, and various oral care technologies, along with 5 patents related to Oral Care and 6 Continuing Education courses. He currently resides in the UK and is a consultant to the Oral Care industry.

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