

adha 94TH ANNUAL
CONFERENCE
JUNE 14-19, 2017
JACKSONVILLE, FL



CE Course Handout

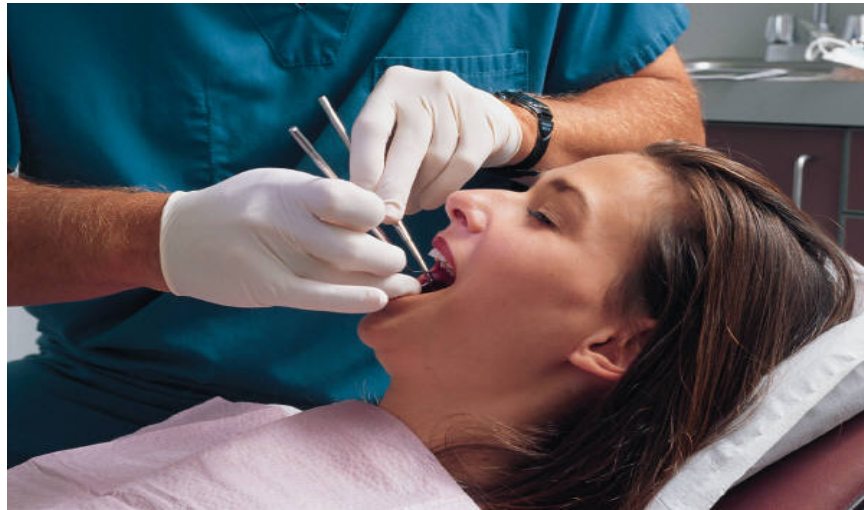
Treating Chronic Gingival Inflammation: What's New, What's Old and Where's the Evidence?

June 16th, 2017



American
Dental
Hygienists'
Association

Treating Chronic Gingival Inflammation: What's New, What's Old and Where's the Evidence?



**ADHA 94th Annual Conference
Jacksonville, FL
June 16, 2017**

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Evidence-based publications/websites for information on products/treatments

1. **PubMed:** www.pubmed.gov
2. **American Academy of Periodontology:** www.perio.org
Journal of Periodontology
 - Comprehensive Periodontal Therapy: A Statement by the American Academy of Periodontology. J Periodontol, July 2011
 - AAP Statement on the Efficacy of Lasers in the Non-Surgical Treatment of Inflammatory Periodontal Disease, J Periodontol, April 2011
 - **Editor's Consensus Report:** The American Journal of Cardiology and Journal of Periodontology Editors' Consensus: Periodontitis and Atherosclerotic Cardiovascular Disease. J Periodontol, July 2009
 - 2008 Workshop on Inflammation; Inflammation and Periodontal diseases: A Reappraisal.
 - 2003 Workshop on Contemporary Science in Clinical Periodontics
 - **Position Papers:**
 - The role of supra-and subgingival irrigation in the treatment of periodontal diseases. 2005
 - Implications of Genetic Technology for the Management of Periodontal Diseases- 2005
 - Systemic Antibiotics in Periodontics -2005
 - Current understanding of the role of microscopic monitoring, baking soda and hydrogen peroxide in the treatment of periodontal disease- 1998
 - Modulation of the host response in periodontal therapy- 2002
 - Sonic and ultrasonic scalers in periodontics. 2000
 - Periodontal management of patients with Cardiovascular Disease-2002
 - Guidelines for Referral-2006
 - **Academy Statements:**
 - Peri-Implant Mucositis and Peri-Implantitis: A Current Understanding of Their Diagnoses and Clinical Implications AAP Academy Statement 2013
 - The Efficacy of Lasers in the Non-surgical Treatment of Inflammatory Periodontal Disease 2011
 - Comprehensive Periodontal Therapy 2010
3. **International Academy of Periodontology**
Journal of the International Academy of Periodontology
4. www.blackwellpublishing.com
Journal Clinical Periodontology
Periodontology 2000
International Journal of Dental Hygiene
5. **National Institute of Dental and Craniofacial Research (NIDCR):**
www.nidcr.nih.gov
6. **International/American Association for Dental Research:**
www.dentalresearch.org
Journal of Dental Research
Advances in Dental Research
7. **American Dental Association:** www.ada.org

- ADA Center for Evidence-Based Dentistry <http://ebd.ada.org/en/>
Journal of the American Dental Association
8. **American Dental Hygienists' Association:** www.adha.org
Journal of Dental Hygiene <http://www.adha.org/publications/>
 9. **Canadian Dental Hygienists' Association:** www.cdha.ca
Canadian Journal of Dental Hygiene
 10. **Cochrane Collaboration:** www.cochrane.org
 11. **American Diabetes Association:** www.diabetes.org and professional.diabetes.org
 12. **American Heart Association:** www.americanheart.org

Informative Corporate Websites

13. **Procter & Gamble Company:** www.dentalcare.com
Journal of Contemporary Dental Practice
14. **Colgate Oral Pharmaceuticals:** www.colgate.com* White papers on oral-systemic health
15. **OraPharma, Inc:** www.arestin.com
16. **Dimensions of Dental Hygiene:** www.dimensionsofdentalhygiene.com
17. **Johnson & Johnson McNeil-PPC, Inc.** www.listerine.com
18. **PerioSciences--** <http://www.periosciences.com/control/main>
19. **PreViser™ --** <http://www.previsor.com>
20. **PerioPredict Genetic Risk Test--** <http://ilgenetics.com>
21. **Sunstar --**<http://gumbrand.com>
22. **GC America--** www.gcamerica.com
23. **Izun Pharmaceuticals --** <http://izunpharma.com/>

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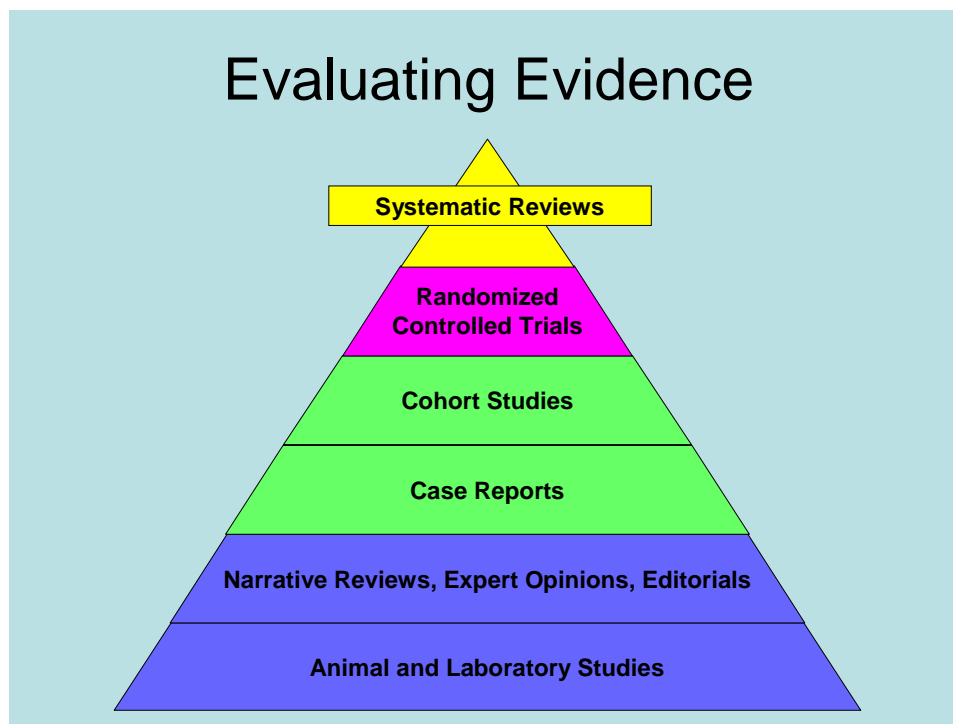
Recent noteworthy publications for Clinical Practice:

1. Wilder RS, Moretti A. Gingival Diseases. In Spolarich A, Panagakos F. Prevention across the Lifespan: A review of Evidence-Based Interventions for Common Oral Conditions. To be published by Colgate Professional in March, 2017.
2. A Guide to Reporting D4346.
http://www.ada.org/~media/ADA/Publications/Files/D4346EducationGuidelines_Final2016May17.pdf?la=en.
3. The Future of Oral Health. Scientific American publication.
<https://www.scientificamerican.com/products/the-future-of-oral-health/>
4. Wilder RS, Bray KS. Improving periodontal outcomes: merging clinical and behavioral science. *Periodontol 2000*. 2016 Jun; 71(1):65-81.
5. Bidra AS et al. Clinical Practice Guidelines for Recall and Maintenance of Patients with Tooth-Borne and Implant-Borne Dental Restorations. *J Dent Hyg*. 2016 Feb;90(1):60-9 or *J Am Dent Assoc*. 2016 Jan;147(1):67-74.

6. Bidra AS et al. A Systematic Review of Recall Regimen and Maintenance Regimen of Patients with Dental Restorations. Part 1: Tooth-Borne Restorations. *J Prosthodont*. 2016 Jan;25 Suppl 1:S2-15.
7. Smiley CJ et al. Evidence-based clinical practice guideline on the nonsurgical treatment of chronic periodontitis by means of scaling and root planing with or without adjuncts. *JADA* July 2015 Volume 146, Issue 7, Pages 525–535.

Definitions:

Evidence based practice: EB practice is an approach to the care and treatment of patients wherein the health professional includes the "conscientious, explicit, and judicious use of the most current, best evidence in making clinical decisions regarding the care of individual patients." Evidence-based practice is a process that restructures the way health professionals think about clinical problems. Traditionally, health professionals have placed high value on their accumulated personal knowledge and adherence to long-held standard practices when making clinical decisions. Conversely, an EB approach encourages the professional's integration of the resulting knowledge with clinical expertise and patient preferences to determine the best treatment for individual patients. EB practice therefore requires the blending of research knowledge with provider experience.¹⁻⁵



Comprehensive Periodontal Therapy—Updated in 2010: Available at
http://www.perio.org/resources-products/pdf/periodontal-therapy_statement.pdf

Comprehensive Periodontal Examination

- Scope of Periodontal Therapy
- Periodontal Evaluation

- Establishing a Diagnosis, Prognosis, and Treatment Plan
- Informed Consent and Patient Records
- Treatment Procedures
- Evaluation of Therapy
- Factors Modifying Results
- Periodontal Maintenance Therapy

Common Antimicrobials Agents and How They Affect Biofilm Development and Adhesion

Cetylpyridinium Chloride (CPC): Works by rupturing the cell wall and altering the cytoplasm. CPC also decreases bacterial attachment to the pellicle.

Chlorhexidine (CHX): Works by binding to the pellicle and interfering with salivary mucin function to prevent biofilm accumulation. CHX causes cell lyses and the bacteriostatic concentrations interfere with the cell wall transport system.

Chlorine Dioxide: Works by neutralizing the volatile sulfur compounds that affect oral malodor so the agent is primarily used for cosmetic claims and not therapeutic benefits.

Essential oils (EO): Disrupts cell walls and inhibits bacterial enzymes. EO also decreases the pathogenicity of biofilm.

Stannous Fluoride: The tin ion binds to the bacterial surface which prevents colonization. Also, the accumulation of tin affects the metabolic activity of bacteria and alters cellular aggregation and metabolism.

Zinc Citrate: Zinc citrate or zinc chloride can effect bacterial adherence, alter bacterial metabolic activity and reduce the rate of bacterial growth.

Triclosan and copolymer: With both antimicrobial and anti-inflammatory properties, triclosan and copolymer affect the microbial cytoplasmic membrane causing leakage of the cell contents.

References:

1. Black TL. Dentifrices and Mouthrinses. In Wilkins EM, Clinical Practice of the Dental Hygienist. 11th Edition. Lippincott Williams & Wilkins. Philadelphia. 2013, pps 423-35. .
2. Ciancio S. Controlling biofilm with evidence-based dentifrices. Compendium. 2011 32 (1): 3-14.
3. Wilder R, Moretti A. Antimicrobial mouthrinses for plaque and gingivitis control. Dimensions of Dental Hygiene. November 2016;14(11):29–30.

Free Publications

1. The Future of Oral Health. Scientific American Publication. 2016
<https://www.scientificamerican.com/products/the-future-of-oral-health/>
2. **Special issue:** Periodontitis and Systemic Diseases - Proceedings of a workshop jointly held by the European Federation of Periodontology and American Academy of Periodontology. Volume: 84, Number: 4-s April 2013
3. Tillis, T. Improve oral health with mouthrinses. *Dimensions of Dental Hygiene*. 2013.
4. Pickett FA, Tornwall R. Nonfluoride caries prevention. *Dimensions of Dental Hygiene*, 2012.
5. Scheyer ET, McGuire MK. The new era of periodontal regeneration. *Dimensions of Dental Hygiene*, 2011.
6. Genco RJ and Williams RC. Periodontal Disease and Overall Health: A Clinician's Guide. 2010
<http://www.colgateprofessional.com/professionaleducation/Periodontal-Disease-and-Overall-Health-A-Clinicians-Guide/article>
7. Editor's Consensus Report: The American Journal of Cardiology and Journal of Periodontology Editors' Consensus: Periodontitis and Atherosclerotic Cardiovascular Disease. *J Periodontol*, July 2009
8. Spolarich AE, Andrews L. An examination of the bleeding complications associated with herbal supplements, antiplatelet and anticoagulant medications. *J Dent Hyg*.
<http://www.adha.org/jdh/articles/JDHHerbalSuppl.pdf>
9. Scientific American Oral and Whole Body Health. <http://www.dentalcare.com/search/index.htm>
10. Colgate White Papers.
<http://www.colgateprofessional.com/app/ColgateProfessional/US/EN/Products/ProductItems/ColgateTotal/WhitePapers.cvsp>
11. ADA Policy on Evidence Based Dentistry.
<http://www.ada.org/prof/resources/positions/statements/evidencebased.asp>
12. Mealey BL and Oates TW. Diabetes mellitus and periodontal diseases. *J Periodontol* 2006;77:1289-1303. <http://www.perio.org/resources-products/pdf/lr-diabetes.pdf>
13. Cobb C. Lasers in periodontics: a review of the literature. *J Periodontol* 2006;77:545-564.
<http://www.perio.org/resources-products/pdf/lr-lasers.pdf>
14. AAP Position Paper: Implications for genetic technology for the management of periodontal diseases. *Periodontol* 2005;76:850-857. <http://www.perio.org/resources-products/pdf/47-genetics.pdf>
15. Gurenlian J. Inflammation: The relationship between oral health and systemic disease. Access, April 2006. http://www.adha.org/downloads/sup_inflammation.pdf
16. Gurenlian JR. The role of dental plaque biofilm in oral health. *J Dent Hyg*. Special Supplement 2007. http://www.adha.org/downloads/Antimicrobial_JDH_Supplement.pdf
17. DePaola LG, Eshenaur Sploarich A. Safety and efficacy of antimicrobial mouthrinses in clinical practice. *J Dent Hyg*. Special Supplement 2007.
http://www.adha.org/downloads/Antimicrobial_JDH_Supplement.pdf
18. Asadoorian J. Strategies for incorporating antimicrobial mouthrinses into daily oral care. *J Dent Hyg*. Special Supplement 2007. http://jdh.adha.org/content/81/suppl_1.toc
19. Jared H, Boggess K. Periodontal Diseases and Adverse Pregnancy Outcomes: A Review of the Evidence and Implications for Clinical Practice. *J Dent Hyg*
http://jdh.adha.org/content/82/suppl_1.toc
20. Cobb C. Microbes, inflammation, scaling and root planing, and the periodontal condition. *J Dent Hyg* 2008; 3-9.
21. Paquette DW, Ryan ME, Wilder RS. Locally delivered antimicrobials: clinical evidence and relevance. *J Dent Hyg* 2008; 10-15.

Free Patient Resources:

American Diabetes Association: Cardiovascular Disease Toolkit

<http://professional.diabetes.org/ResourcesForProfessionals.aspx?typ=17&cid=60459>

- All about Pre-diabetes
- Getting the Very Best Care for your Diabetes
- Taking Care of Type 2 Diabetes
- All About Your Blood Glucose for People with Type 2 Diabetes
- All About Insulin Resistance
- Protect Your Heart: Make Wise Food Choices
- Protect Your Heart: Choose Fats Wisely
- Protect Your Heart: Cook with Heart Healthy Foods
- Protect your Heart: Check Food Labels to Make Heart-Healthy Choices
- Protect Your Heart by Losing Weight
- Recognizing and Handling Depression for People with Diabetes
- Treating High Blood Pressure in People with Diabetes
- Taking Care of Your Heart
- Know the Warning Signs of a Heart Attack
- All About Stroke

National Institutes of Health / National Institute of Dental and Craniofacial Research

<http://www.nidcr.nih.gov/OralHealth/>

- Burning Mouth Syndrome
- Cancer Treatment and Oral Health
- Cleft Lip and Palate
- Developmental Disabilities and Oral Health
- Diabetes and Oral Health
- Dry Mouth (Xerostomia)
- Fillings (Amalgams)
- Fluoride
- Genetics
- Gum (Periodontal) Diseases
- Heart Disease and Oral Health
- HIV/AIDS
- Oral Cancer
- Organ Transplantation and Oral Health
- Pain (oral, facial)
- Pregnancy and Oral Health
- Saliva and Salivary Gland Disorders
- Sjögren's Syndrome
- Spit (Smokeless) Tobacco
- Taste Disorders
- TMJ (Temporomandibular Joint and Muscle Disorders)
- Tooth Decay (Caries)