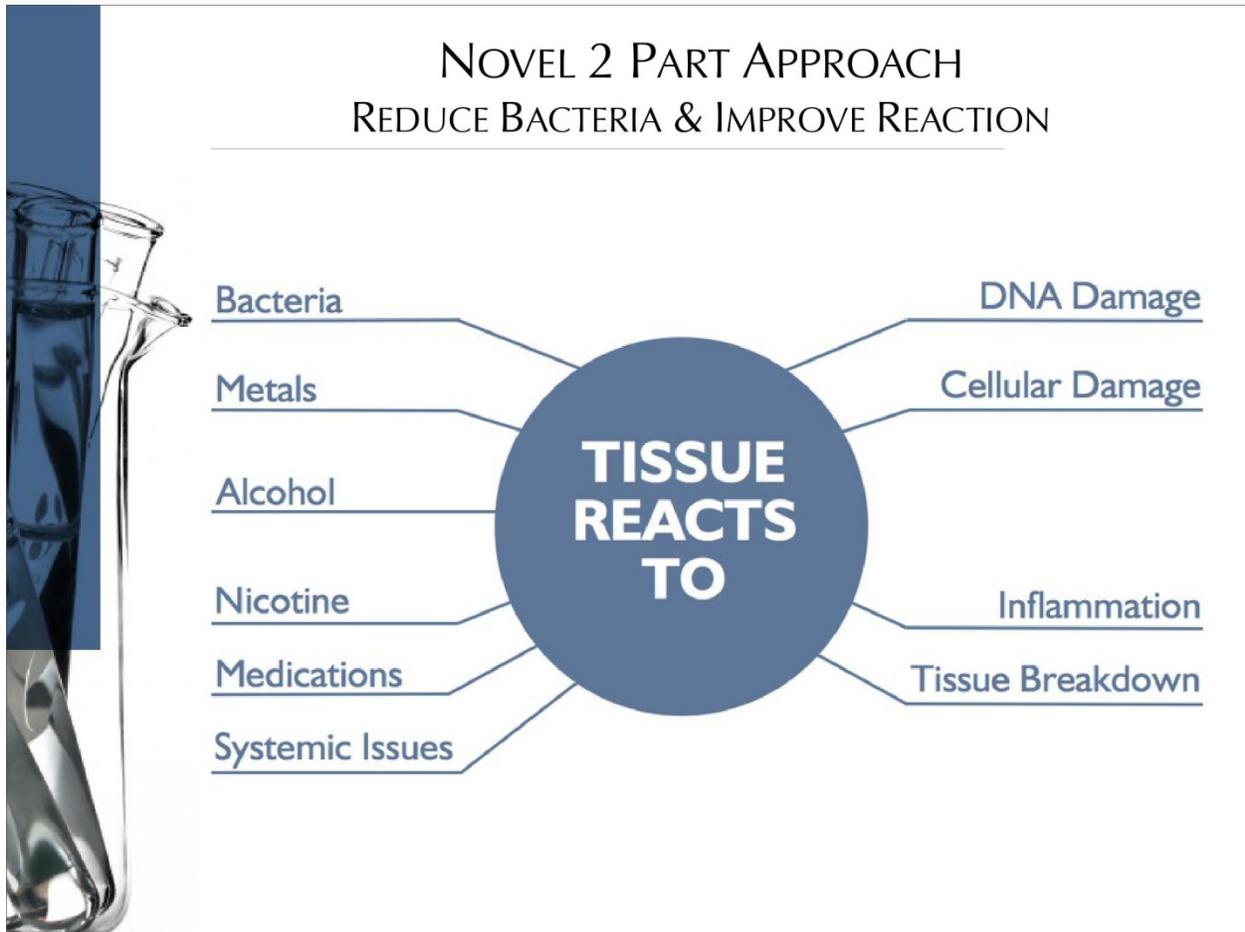


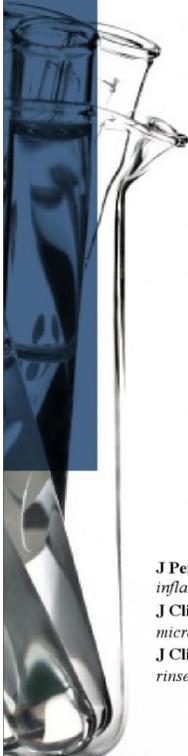
PerioSciences Antioxidant Oral Care

PerioSciences utilize novel, patent pending, antioxidants and work with the natural antioxidants contained in saliva. The naturally sourced antioxidants and other ingredients, including xylitol and essential oils, are gentle on soft oral tissue and feel cool and soothing upon application. PerioSciences products support the balance of complex oral chemistry, leading to fresh breath and improved appearance of oral soft tissue and are best used in conjunction with a comprehensive dental hygiene program. PerioSciences products are first to market in a new category of personal care – Antioxidant Based Oral Care.



PART 1 - REDUCE BACTERIA

MENTHOL & THYMOL ARE AN ALTERNATIVE



Essential Oil Mouthwash (menthol & thymol) are a reliable alternative to chlorhexidine with respect to gingival inflammation. ¹

Essential oil mouth rinse and the chlorhexidine had comparable anti-plaque and anti-gingivitis activity. ²

Herbal rinse (menthol & thymol) and chlorhexidine both produced shifts in sub-gingival microbiota and significantly reduced plaque index (PI). ³

J Periodontal, 2011, Leeuwen, et. al.; *Essential oils compared to chlorhexidine with respect to plaque and parameters of gingival inflammation: a systematic review.*

J Clinical Dent, 2009, Haffajee, et. al.; *Effect of herbal, essential oil, and chlorhexidine mouth-rinses on the composition of the sub-gingival microbiota and clinical periodontal parameters.*

J Clin Periodontal, 2004 Charles et. al.; *Comparative anti-plaque and anti-gingivitis effectiveness of a chlorhexidine and essential oil mouth-rinse: 6-month clinical trial.*

PERIOSCIENCES®

PART 2 - SALIVARY ANTIOXIDANTS

- Antioxidants Are A Natural Component Of Saliva & They Decrease with Age
- Research Shows Salivary Antioxidants Are Extremely Important in Regulating Oral Health
- Oxidative Stress & Inflammation Have An Inverted Relationship With Salivary Antioxidants



Salivary antioxidant biomarkers in non-ferrous metals mine workers- a pilot study, Greabu, M. et. al., Oral Pathology & Medicine March 2012

The Antioxidant Potential of Saliva: Clinical Significance in Oral Diseases, Miricescu, et al., Therapeutics, Pharmacology and Clinical Toxicology, June 2011

Evidence of Oxidative Stress in Temporomandibular Disorders: A Pilot Study, Rodriguez de Sotillo, et. al., Journal of Oral Rehabilitation, April 2011

Lipid peroxidation and antioxidant status in head and neck squamous cell carcinoma patients, Gupta, et al., Oxidative Medicine and Cellular Longevity, April - June 2009

Protective effect of lecithinized SOD on reactive oxygen species-induced xerostomia, Tai Y, et al., Radiation Research, September 2009

Age-Related Changes in Salivary Antioxidant Profile: Possible Implications for Oral Cancer, Hershovich, et al., The Journals of Gerontology, BIOLOGICAL SCIENCES 2007

Salivary Analysis in Oral Cancer patients: DNA and protein oxidation, reactive nitrogen species, and antioxidant profile, Bahar Gideon, et. al., Cancer 2007

Low Antioxidant Levels Associated with Periodontal Disease, Chapple Ian, et. al., Journal of the American Dental Association 2003

Salivary antioxidants and periodontal disease status, Sculley et. al., Proceedings of the Nutritional Society, 2002

Interaction between dental metals and antioxidants, assessed by cytotoxicity assay and ESR spectroscopy, Kinoshita N, et al., Int. Journal of Cancer Research and Treatment, Nov/Dec. 2002

Oxidative stress and degenerative temporomandibular joint disease: A proposed hypothesis, Milam, Zardeneta et. al., Journal of Oral and Maxillofacial Surgery February 1998

Reactive Oxygen Species and Antioxidants in Inflammatory Diseases, Chapple, et al., Journal of Clinical Periodontology, May 1997

Redefining Oral Care



with Antioxidants