

An Open Letter to Health Care Professionals

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Dear Doctor,

In the past few years there has been an increasing amount of research and published literature showing the connections of chronic oral infections and various systemic medical conditions. Like you, we see that the winds of medical/legal standards-of-care are starting to shift to include careful multi-disciplinary management of compromising health conditions such as diabetes, heart disease, and pregnancy, to name a few. As this standard of care shifts to embrace oral health status, physicians and dentists are recommending, if not insisting, that their patients deal with chronic oral infections. (note: Because of these connections, some medical carriers are now covering periodontal treatments).

At this region's only "*Center for Dental Medicine*" our practice seeks to build a bridge in the medical/dental community to benefit patients and to help health professionals avoid the problems associated with failure to diagnose/treat important diseases related to the presence of chronic oral infections. Our purpose is to help save lives, and to help keep our physician friends and colleagues out of trouble with regard to what will be the certain medical/legal liability scrutiny which is coming our way.

Our practice seeks to identify and address those factors in our mutual patients which are known to affect their health and well-being. Many of these are documented in the accompanying binder of information. While I don't expect that you will read every page, I hope that you will view it as a valuable reference resource. We hope you will view this information in a new light, and that it will serve to reassure you that you have a knowledgeable partner who is capable of helping you accomplish health objectives with your patients that by its very nature you are unable to obtain without our assistance.

Certainly, the day is fast upon us when this medical and legal standard of care will cause all physicians to insist that their patients be screened for periodontal disease, and that if found at risk, that they exercise diligence in resolving these life-altering and potentially life-threatening conditions. We look forward to working closely with physicians such as yourself in helping you to manage and treat the hidden sources of chronic oral infection in your patients.

We hope that you would feel comfortable in considering this information and our services as a valuable resource in helping you render the best care possible for your patients who have diabetes, or who are pregnant, or have heart disease, elevated CRP, or who have personal or family history of important risk factors for these diseases/conditions.

At The Center for Dental Medicine we also realize that our efforts in achieving patient wellness are limited without medical supervision for systemic diseases. Because of our proactive approach to our patient's wellness we are always looking for qualified medical practices who would appreciate receiving patient referrals from our office. If you are open to receiving referrals we invite you to let us know. (Perhaps you can have one of your staff provide us with referral information to facilitate these referrals.)

Additionally, if you are interested, we would like to make ourselves available to present in-service training for you and your staff on the dental and periodontal aspects of the oral-systemic health connection. Depending on your level of interest this training could consist of a very brief review on the present research, and then focus on ways your staff can quickly and easily screen for evidence of periodontal disease - and what to do about it. In addition to the present topics, we would also be pleased to provide or accept any joint-communication or newsletters to our respective patient bases about mutual health issues that our practices deal with (i.e. headaches, TMJ, fitness, preventive medicine, cosmetic issues, etc).

Our greatest joy professionally is in helping improve and maintain the health of those who seek our services and care. I'm sure you feel the same way about your practice. We feel that looking at our patients from a total health perspective increases our effectiveness and value. To this end, I invite you to at least briefly re-familiarize yourself with the oral health / systemic disease issues presented herein and enclosed in the accompanying binder. I would welcome your involvement, however minor or major, in this multi-disciplinary effort to jointly improve the lives and health of our respective patients.

Please feel welcome to call me or contact my office, or to call upon us in helping you with your patients as you deem appropriate. Thank you in advance for your time and interest.

Sincerely,

G. Lee Ostler DDS

PS - What follows is a brief overview and summary of the negative impact which chronic oral infections are having on our patients. More information is available at www.makemesmile.info.

Summary and Review:

The Oral-Systemic Connection – More than just a “Gum Infection!”

Periodontal disease is a local inflammatory process in gum tissues caused by the body's response to bacterial insult. It is also characterized by responses in the host of systemic inflammatory markers that are believed to contribute to a higher risk for cardiovascular disease and diabetes . Other systemic conditions have also been connected with chronic oral infection and/or elevations in pro-inflammatory mediator, including: metabolic syndrome , complications of pregnancy, colon cancer , kidney disease ,prostate cancer, formation of blood clots , obesity , respiratory disease , damaged heart valves , endocarditis , and osteoporosis .

Periodontal disease is associated with elevated inflammatory markers (C-reactive protein) and increased systemic inflammation. Until now, CRP has been viewed as an ‘innocent bystander’ in the formation of heart disease. But current understandings are now viewing elevated CRP as a key culprit that causes inflammation in the arteries resulting in formation of clots and plaques which lead to cardiovascular disease . Because periodontitis is an important risk factor and predictor for atherosclerotic conditions , this information is now beginning to modify the medical standard-of-care for addressing the risk factors of heart disease such that aggressive treatment is indicated to control CRP levels even when normal cholesterol levels exist.

Pregnancy complications are also being connected with periodontal infections and elevated C-reactive protein levels. Gingivitis during pregnancy has been shown to be an independent risk factor for preterm low birth weight pregnancy complications. This is explained through the translocation of bacteria or bacterial products in the systemic circulation (prostaglandins, cytokines, C-reactive protein, etc.). Recent studies have found an increase in likelihood of preterm low birth weight babies, and that those babies who were preterm or low birth weight had mothers with significantly more periodontal disease than controls with normal babies . Women should begin and maintain their pregnancy without gingivitis or gum disease. If oral infections are found during pregnancy, treatment should begin as soon as possible to reduce pregnancy risks. Periodontal treatment has been shown to reduce the incidence of preterm births and low birth weight infants between 71 and 84 percent in pregnant women with moderate to severe chronic periodontitis .

Diabetes and its related insulin resistance and metabolic syndromes are widely prevalent in our modern society. It is estimated that approximately 80% of our population has periodontal disease in one form or another . Periodontitis is known to be twice as prevalent in diabetic individuals compared to non diabetics . Studies have shown that chronic oral infections such as ‘gum disease’ affects glucose control in diabetics, and that deep gum pockets were closely related with glucose tolerance status .

Because of the increasing prevalence of diabetes in our society and the recent research indicating the dangers of periodontal disease to diabetics , and that treatment of the

periodontal disease can help patients control their blood sugar, we now routinely test all of our periodontal patients for Glycated hemoglobin, HbA1c.

Clinically, periodontal disease usually presents with gum swelling and bleeding, and halitosis. Pain is not a feature until late stages. 'Volatile sulfur compounds' (VSCs) are more than a cosmetic problem. These bacterial gases are responsible for the bad breath characteristic of gum disease. Hydrogen sulfide (H₂S) & methyl mercaptan (CH₃SH) increase permeability of intact gingival mucosa and stimulate production of cytokines associated with periodontal disease .

Periodontitis causes a breakdown in the gum tissue and allows the periodontal bacteria, especially *porphyromonas gingivalis* to invade the endothelial cells . Reports are now surfacing that show the presence of invasive periodontal pathogens at sites of atherosclerotic disease, establishing an unequivocal link and supporting the idea that periodontitis is an exacerbating factor in cardiovascular disease. These periodontal bacteria are gram-negative anaerobes that thrive in deeper periodontal pockets in the advanced stages of periodontitis. *P. gingivalis* is a potent signal for monocyte and macrophage activation, and once established in the host, complicates diabetes control and increases the occurrence and severity of microvascular and macrovascular complications.

Modern Periodontal Therapy

It's a sad indictment that despite our best efforts to educate our patients and the public, and in spite of following what could be now called "old-school" treatment protocols, there is still an 80% incidence of periodontal diseases amongst our population at large. To effectively deal with the oral-systemic connection today, modern treatment protocols must go beyond the "regular cleaning" or surgical mindsets and standards we have been so accustomed to.

Modern practices include the use of antimicrobial agents, ionized sub-gingival irrigation to break down the electro-chemical properties of the bacterial plaque and help remove the microbial biofilm, advanced nutritional support to build healthy collagen and repair connective tissue, strict behavior modification, and laser-assisted periodontal therapy to remove bacterial endotoxins and polysaccharides from the gum pockets and to help regenerate healthy gum and bone tissues.

Accordingly, our Antimicrobial Tissue Therapy treatment regimen includes:

- thorough evaluation and medical history review
- in-house draw or referral for appropriate blood work (CRP, HbA1c)
- medical referral to physician as indicated for medical management
- patient education, oral hygiene instructions, and behavior modification
- nutritional counseling and supplementation support (Pharmaden nutraceuticals - which have conclusive published double-blind studies, Loma Linda University,

- showing substantial assistance in promoting healing in gingival tissues, rebuilding gingival connective tissues, and providing resistance to re-infection).
- tobacco counseling as needed
 - laser bacterial decontamination and laser-assisted periodontal therapy
 - conventional scaling and root planning
 - removal of bacterial dental plaque and endotoxins impregnating the dental root surface, and other surface contaminants at the sub-gingival level
 - sub-gingival irrigation with anti-microbial agents
 - correction of dental problems contributing to their periodontal condition
 - daily sub-gingival irrigation with anti-microbial agents (such as chlorine dioxide) to control anaerobic bacteria and volatile organic compounds
 - on-going communication with patient's physicians regarding progress of treatments

How We Can Help You

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