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## AAOSH Responds to JADA Editorial that Claims Promoting Oral-Systemic Connection is 'Premature and Misleading'

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In the recent issue of the *Journal of the American Dental Association*, the guest editorial, "Promoting oral health care because of its possible effect on systemic health is premature and misleading," by Bruce L. Pihlstrom, et. al. expressed the opinion that "there remains a need for more convincing and higher quality evidence that oral health care actually has a measurable impact on specific systemic diseases before it can be claimed that attaining good oral health can prevent systemic diseases or conditions."

As the board of the American Academy for Oral Systemic Health, we find this editorial piece to be highly disheartening due to its failure to see the bigger picture when it comes to the relationship between oral health and systemic disease.

It is a disservice to unknowing patients when practitioners neglect the mounting associations, causation, and level-A evidence published in prominent medical journals like *Circulation*, the *Journal of the American Heart Association*, and *Lancet* that infection in the mouth significantly contributes to medical conditions like Alzheimer's disease, heart attacks, stroke, pre-term births, diabetes, cancers, rheumatoid arthritis, and a host of other inflammatory conditions. (And that's not even touching the associations involved with airway development, sleep apnea, and myofunctional disorders.) Major universities and medical institutions like the Cleveland Clinic are already changing their standard of care to incorporate the oral-systemic associations that research has uncovered. We have a responsibility not to overstate the relationship, but we are obligated to be informed and to inform our patients.

The old model in traditional medicine of treating symptoms and body parts in isolation is flawed. Body parts and organ systems are connected via the bloodstream, the lymphatic system, the endocrine system, the gastrointestinal system, the nervous system, and the immune system. To say that what happens in one part of the body does not affect the rest is simply irrational.

It is true that correlation does not equal causation, and patient care cannot and should not be dictated by a single piece of research. However, we must not let the perfect be the enemy of the good. To ignore significant associations and positive outcomes just because scientific studies have not yet proved causality is negligent. The link between cholesterol and heart disease is not one of causality, yet the medical community encourages millions of people every day to take medication (not without side effects) and make lifestyle changes that will help lower cholesterol with the goal of mitigating risk of heart disease.

Furthermore, we find it offensive that the authors would suggest that dental professionals are using the oral-systemic connection as a means of acquiring new patients and increasing profits. Due to the intense training and additional resources involved in practicing oral-systemic health dentistry, you'll find very few oral-systemic dentists who are "in it for the money."

There are, however, tremendous financial advantages to our population by treating people holistically. Research by insurance companies has shown that improving oral health <u>actually saves patients money on</u> <u>healthcare costs</u> by <u>reducing complications</u> and hospital admissions for chronic health conditions.

Not only do dental professionals see patients more frequently than medical practitioners, we are in the unique position of seeing patients primarily when they are healthy—when they are open to learning how the mouth can affect their oral and overall health. Because the mouth is such an amazing indicator of systemic health, we have a unique opportunity to address nutrition, sleep, airway development, acid reflux, food allergies, smoking cessation, caries, HPV-oral and pharyngeal cancers, eating disorders, and more in the context of the patient's health history and in a way that encourages the patient to become an advocate for his or her own health. What other healthcare professional out there is providing such a well-rounded discussion? And how can that possibly cast a negative light on our profession?

We know that having good oral health has many advantages and that poor oral health has many disadvantages. Effective and efficient chewing, enjoyment of food, pleasing appearance, self-confidence, and freedom from pain and infection are just a few of the benefits of good oral health. Educating patients about the potential systemic risks and side effects associated with poor oral health, malocclusion, and airway issues just gives patients more reason to take our care seriously. No one is suggesting dental care is the magic pill to cure all disease.

Science changes daily, as does our understanding of it. As recently as the 1950s, physicians were *prescribing* cigarettes to help with conditions ranging from coughing to anxiety. And a little over a decade ago, we had no idea that the complexity of periodontal disease was enough to negatively influence glycemic control or cardiovascular health. Change is never easy, but the evidence of a significant association between oral and systemic health is incontrovertible. We must not let the complexity of this association deter us from expanding the nature and scope of our care when it is so clearly warranted.

Treating and reversing chronic disease must be a collaborative effort among practitioners across different disciples. Practitioners are moving from their silos to co-diagnose and co-treat. For the good of our country, our patients, practitioners, and our profession, dentistry cannot afford to miss the opportunity to be part of this collaborative effort. A growing number of dentists are working with physicians and other healthcare practitioners for more optimal treatment results. Unless we stand up and take our role as the physicians of the mouth, we, dentistry, and oral heath will not be viewed or accepted in our vital and important roles.

We are excited about the growing recognition of the important role dentistry can and must play in the battle against the epidemic of chronic disease. With this recognition, we draw attention to the high-quality research publications the authors called for. The medical literature has numerous articles, published in the highest rated peer-reviewed journals, documenting the oral-systemic link. It is very important for all dental professionals to not just read a few dental publications for their continued education, but to embrace the vast amount of scientific literature available.

Below you will find some additional study links and resources that discuss the relationship between oral and systemic health. We encourage JADA's readers to explore these, do their own research, and establish their own conclusions about what the science says.

We also encourage anyone interested in this topic to <u>visit our website</u>, join the conversation with us online, and/or to make plans to attend our <u>Annual Scientific Session</u> in conjunction with the American College for the Advancement of Medicine (<u>ACAM</u>) and the American Academy of Physiological Medicine and Dentistry (<u>AAPMD</u>)—our first joint medical/dental conference.

## **Research Studies**

<u>Oral spirochete infection meets Koch & Hill criteria for causality of dementia and Alzheimer's disease</u> (*Journal of Neuroinflammation*)

Term stillbirth caused by oral Fusobacterium nucleatum (Obstetrics & Gynecology)

Levels of systemic inflammatory markers higher in patients with obstructive sleep apnea. (Journal of Clinical Sleep Medicine)

<u>Sleep apnea treatment improves glucose metabolism in patients with pre-diabetes.</u> (American Journal of Respiratory and Critical Care Medicine)

High-risk periodontal pathogens contribute to the pathogenesis of atherosclerosis (British Medical Journal)

Prolonged and repetitive exposure to Porphyromonas gingivalis increases aggressiveness of oral cancer (Tumor Biology)

<u>Evidence indicates that periodontitis is a significant risk factor for poor glycemic control</u> (Journal of the American Dental Association)

<u>Dentists may be the first to diagnose the possibility of GERD, especially in the case of silent reflux.</u> (*International Journal of Dentistry*)

Periodontal pathogenic bacteria, Aggregatibacter actinomycetemcomitans affect non-alcoholic fatty liver disease by altering gut microbiota and glucose metabolism (*Nature*)

<u>Periodontal disease is associated with increased all-cause and cardiovascular mortality in people with</u> <u>chronic kidney disease.</u> (*BMC Nephrology*)

Xerostomia from polypharmacology influences caries, erosion, chronic gingival inflammation and candidiasis. (Therapeutics & Clinical Risk Management)

Non-surgical periodontal therapy was effective in improving periodontal clinical data and in reducing the plasma levels of IL-6, CRP, and fibrinogen in hypertensive patients with severe periodontitis. (Journal of Periodontology)

The role of dentists in the diagnosis, therapy, and management of patients with metabolic syndrome is fundamental. (Nutrition & Metabolism)

Human Atherosclerotic Plaque Contains Viable Invasive Actinobacillus Actinomycetemcomitans and Porphyromonas gingivalis. (Arteriosclerosis, Thrombosis, and Vascular Biology)

## **Other Resources**

oralsystemiclink.net zt4bg.com gumsofsteel.com wellnessdentistrynetwork.com oshnewsnetwork.com pubmed.gov