

Dentistry's Vital Role in Addressing the Health Needs of the Public

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To get to the heart of this report, I must point to an undeniable fact that all of us know to be true. However, the vast majority of us in the dental and medical profession as well as the public truly do not understand its tremendous significance, that **oral health is equivalent to total health**. This fact is heavily emphasized in the Surgeon General's report.¹ Many studies have shown the correlation between periodontal disease and heart disease.^{2,3,4,5} Other studies show correlation between periodontal disease and diabetes.^{6,7,8} Finally, other studies show correlation between periodontal disease and potential risk for pre-term birth and low birth weight.^{9,10}

The mouth is truly the "gateway to health." And nutrition has far more impact on health than ever realized. The problem with bottle-feeding cannot be denied with documented cases of rampant decays in "milk bottle syndrome." However, there are other major problems not so well understood. For instance, there are significantly higher incidence of allergies and mouth breathing in children that were bottle-fed compared to those that were breastfed.^{11,12,13,14} Mouth breathing is associated with multitude of medical problems, the most significant of which are dental malocclusion and facial-skeletal abnormalities. Vast numbers of research and studies, past and present, attest to this.¹⁵⁻²⁵

Unattractive facial and dental features attributed to mouth breathing are cause enough for our profession to be trained in screening children with this problem. However, there are more insidious problems that warrant major concerns. Mouth breathing is associated with swollen tonsils and adenoids, respiratory problems, and sleep disturbances. Collectively, these problems can have devastating effect on total health and wellness that can last a life time. These problems include, but not limited to, difficulty in eating and swallowing, chronic earaches, chronic recurrent throat infections, fatigue, inability to concentrate in school, attention deficit and hyperactivity, tinnitus, postural problems including scoliosis and lordosis, bed wetting, skin disorders, underdevelopment in height and weight, etc.²⁶⁻⁴²

Dentistry may have the answer to alleviating some of the symptoms associated with some genetic problems as well. There are dentists today treating children with Down Syndrome by expanding their palate. This treatment harmonizes their face and allows more efficient respiration. Many of these children lose some of their Down Syndrome appearance. In addition, their I.Q's significantly increase. By harmonizing the facial-skeletal structures, other doctors today are alleviating mental retardation and grand mal seizures. Inadequate respiration can also be life threatening. It may cause enlargement of the heart, a condition called Cor pulmonale, which may induce heart attacks during sleep. These are just some of the major findings that can be diagnosed and/or treated by our profession.⁴³⁻⁴⁹

Another area where our dental profession can take the lead is in nutritional counseling. Modern diets that include processed foods, especially refined white sugar and white flour, have been linked to facial, dental, and physical degeneration.^{50, 51, 52, 53} Besides contributing to dental decay, studies have shown that refined white sugar and

refined white flour have been linked to breast cancer, colon and stomach cancer, diabetes, atherosclerosis, hypertension, learning and cognitive problems, and the list goes on.⁵⁴⁻⁶³ Price and Pottenger attribute modern diet to narrowing of the facial and body development, narrowing of birth canals, fertility problems, rheumatism, arthritis, and acceleration of the aging process among other major problems.^{50, 51}

The Surgeon General's report legitimizes the dental profession's right to treat the craniofacial complex. No other health care professional is as knowledgeable in dental occlusion, TM joints, gnathology, and facial-dental esthetics. Environmental factors in modern society contribute to facial disharmonies which in turn contribute to a multitude of medical problems.⁶⁴⁻⁶⁸ Billions perhaps trillions of dollars are spent yearly for medical problems perceived to be infectious or pathogenic. In fact many medical problems may be directly linked to structural misalignments of the craniofacial complex. By placing the mandible in normal physiologic position, medical problems such as hearing loss, migraines, head-neck-shoulder-back pain, dizziness, skin problems, sleeping problems, etc. may be alleviated. Lower jaw position affects head position. When lower jaws are abnormally positioned back, individuals suffer from head-forward posture which may contribute to lordosis. When lower jaws are in cross bite, head positions are skewed sideways which may contribute to scoliosis.^{43, 44} By widening narrow faces and mouths and/or repositioning the lower jaws forward with orthodontic appliances, we can alleviate upper airway obstruction and mouth breathing and alleviate poor head and body posture. Restoring normal nasal respiration is vital to biologic efficiency and total health and wellness.⁶⁹⁻⁷⁴

Billions of dollars are spent annually on diagnoses and treatment of pain, especially in the head, neck, and back regions. Too often expensive diagnostic tests are given with often no definitive findings and no definitive treatment. Most of these patients are given a life time of pain killers and other addictive drugs. Worse yet, surgery may be recommended with often no better result and sometimes devastating consequences. The vast numbers of these pain symptoms can be attributed to temporomandibular dysfunction. We in the dental profession can often alleviate these pain symptoms almost immediately at a fraction of the cost. Because our treatment is short, effective, and usually permanent with usually very little follow-up costs, the savings in health care costs can be monumental.⁷⁵⁻⁸²

It is an undeniable fact, that physical appearance has a tremendous impact on how individuals are treated in society. Negative messages brought on by unattractive facial features can have a devastating psychological and emotional effect. Poor self-image and feeling of unworthiness can last a life time. These individuals may never realize their fullest potential for success and happiness. Some may turn inward and become self-destructive while others may turn outward and become destructive. Dentistry can harmonize the facial-skeletal structures, often without surgery, and thereby, enhance facial and dental esthetics. This can be accomplished with functional appliances at a fraction of the cost of that of plastic surgery with significantly less risks and significantly greater physiologic benefits.⁸³⁻⁹⁵ The term "total health and wellness" does not just imply absence of physical pain and illness; it also implies psychological and emotional health. The Surgeon General in his report clearly states "the importance of the face as the bearer of identity, character, intelligence, and beauty is universal."

I am alarmed by the health care problem facing our nation and around the world. Health care costs and pharmaceutical drug costs appear to be spiraling out of control. Hospitals are consolidating or merging thereby strengthening their position to negotiate for better financial terms with managed care companies. Physicians pressured with high malpractice premiums are pressuring for higher salaries and reimbursement. There is a shortage of nurses requiring hospitals to pay higher and higher salaries and benefits. Add to this mix that the fastest growing segment of the population is the senior citizens who will require significantly more medical care and hospitalization. All these factors will continue to drive up health care costs. Unless there is a viable solution, our country may be faced with a financial crisis.

With the background information just given, I feel that the dental profession has the solution to prevent many health care problems and reduce health care costs significantly. The majority of the medical problems facing our country are preventable. We must educate the public about the dangers of bottle-feeding and poor nutrition. A public service message sponsored by the American Dental Association and the Academy of General Dentistry as well as state and federal health agencies in national print magazines, radio, and television would be a viable venue. Finally, we must educate the dental profession on how we as a profession can alleviate multitude of medical conditions at a fraction of the cost of that of the medical profession and the pharmaceutical companies.

Denmark already has an oral health curriculum in its school system with tremendous success in decreasing dental decays and other oral health problems. As in Denmark, we must also educate our children in the United States on how oral health affects total health and wellness. In so doing, we will help to alleviate multitude of medical problems and help patients lead fuller and healthier lives. If the public and the legislatures truly understand the connection between oral health and total health as described here as well as in the Surgeon General's report, and promote its education to the public, many dental and medical problems may be alleviated. As stated earlier, there are multitude of studies to show that poor cranial facial development is associated with upper airway obstructions and nasal blockages. This in turn cause poor oxygen intake to the lungs and to the circulatory system. The lower oxygen saturation in the circulatory system can have devastating effect in patients with Down syndrome, mental retardation, grand mal seizures, attention deficit and hyperactivity, poor academic performances, poor growth and development, sleep apnea, and many other health issues.

I would like to take a paragraph from the Surgeon General's Report 2000 that exemplifies the gist of what I am trying to say:

"Oral health means much more than healthy teeth. It means being free of chronic oral-facial pain conditions, oral and pharyngeal (throat) cancers, oral soft tissue lesions, birth defects such as cleft lip and palate, and scores of other diseases and disorders that affect the oral, dental, and craniofacial tissues, collectively known as the *craniofacial complex*. These are tissues whose functions we often take for granted, yet they represent the very essence of our humanity."

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