

Editorial

Yoga: A Natural Approach to Oral Health

Despite considerable achievements in the oral health of populations globally, problems still remain in many communities all over the world—particularly among under privileged groups in developed and developing countries. Dental caries and periodontal diseases have historically been considered the most important global oral health burdens. At present, the distribution and severity of oral diseases vary in different parts of the world and within the same country or region. The significant role of sociobehavioral and environmental factors in oral disease and health is evidenced in an extensive number of epidemiological surveys.¹ Poor oral hygiene and tobacco consumption are the most common risk factors for oral disease. The prevalence of oral disease varies with the geographical region, and availability and accessibility of oral health services. The most common oral diseases are dental caries, periodontal disease, loss of a tooth, oral cancer and oral lesions as manifestations of systemic diseases, such as diabetes and even being human immunodeficiency virus (HIV) positive.

Periodontitis is considered to have an etiological or modulating role in cardiovascular, cerebrovascular disease, diabetes, respiratory disease, and adverse pregnancy outcomes. Several mechanisms have been put forward to explain or support such theories. One of these is based on the possibility for an inflammatory phenomenon in periodontitis based on the effects of the systemic dissemination of locally produced mediators, such as C-reactive protein (CRP), interleukin-1 beta (IL-1 β), interleukin-6 (IL-6) and tumor necrosis factor-alpha (TNF- α).² Periodontal diseases are recognized as infectious processes that require bacterial presence and a host response which is further affected and modified by other local, environmental and genetic factors. The oral cavity works as a continuous source of infectious agents, and its condition often reflects the progression of systemic pathologies.³



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Yoga: Boosting Oral Health

In ayurveda, dental health (called danta swasthya in Sanskrit) is very individualistic and varies with each person's constitution (prakriti) and climatic changes resulting from solar, lunar and planetary influences (kala-parinama).² The body constitution is classified based on the predominance of one or more of three physical humors (doshas). These are wind (vata), bile (pitta) and phlegm (kapha). The presence of a specific dosha in an individual and in nature determines healthcare in ayurveda, including dental health.⁴ The practice of yoga in the Indian subcontinent has been documented as early as 3000 BC. The word yoga comes from the same Sanskrit root yuj which means to yoke; it implies harnessing oneself to universal consciousness. Yoga involves disciplining the mind and body through exercise and meditation. Substantial research has been conducted to look at the health benefits of yoga including yoga postures (asanas), yoga breathing (pranayama) and meditation. The information on yoga poses and benefits are grouped into three categories *viz* physiological, biochemical and psychological effects. Yoga enhances the systemic immunity which in turn enhances the oral defense mechanisms illustrated in the table below:

Although the mainstay of periodontal treatment relies on mechanical debridement and dental caries for cavity preparation and restoration, yoga and ayurveda offer a synergistic natural and less invasive approach to dentistry. Yoga synergized with ayurveda produces a positive effect on systemic health including oral health. There are no risk factors and stress associated with practicing yoga for combating oral diseases as compared to conventional dentistry treatment. Yoga practice immediately before an elaborate dental procedure can reduce anxiety and the amount of anesthesia and analgesia required.⁵

<i>Positive actions directed toward healing</i>	<i>Potential benefits</i>
Keratinization	<ul style="list-style-type: none">• Local defense of gingiva• Replacement of diseased cells and tissue• High turnover rate• Cell proliferation (melanocytes, Langerhans cells, Merkel cells and inflammatory cells)
Salivary function	<ul style="list-style-type: none">• Lubrication• Physical protection• Cleansing• Buffering• Maintaining the integrity of the teeth• Antibacterial actions
Gingival crevicular fluid	<ul style="list-style-type: none">• Cellular elements• Electrolyte• Organic compounds• Metabolic products• Enzymes• Cytokines and Immunoglobulins
Blood supply	<ul style="list-style-type: none">• Vascularity• Elasticity• Nutrition• Color• Inflammatory-immune response
Junctional epithelium	<ul style="list-style-type: none">• Dentogingival junction• Epithelial barrier against plaque bacteria• Access of GCF, inflammatory cells and components of immunological host defense• Rapid turn over• Repair of damaged tissue
Architectural integrity	<ul style="list-style-type: none">• Cell-cell attachment• Basal lamina• Keratin cytoskeleton• Strength to gingival fibers• Adherens junctions, tight junctions and gap junctions

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