

Nutritional Deficiencies and their Impact on Oral Health

Uditi Bhadra, Sakshi Deshmukh, Swati Shrikant Gotmare

Department of Oral and Maxillofacial Pathology and Microbiology, D Y Patil University
School of Dentistry, Navi Mumbai (Maharashtra)

ABSTRACT:

Nutrition plays a fundamental role in the maintenance of oral and systemic health. The oral cavity, owing to its high cellular turnover and continuous exposure to microbial, mechanical, and chemical insults, is particularly susceptible to nutritional imbalances. Deficiencies of essential macro- and micronutrients adversely affect the development, integrity, and function of teeth, gingiva, oral mucosa, salivary glands, and supporting bone. Such deficiencies may manifest as enamel hypoplasia, dental caries, periodontal disease, mucosal lesions, xerostomia, and impaired wound healing. Emerging evidence from PubMed-indexed studies highlights strong associations between nutritional inadequacies—especially deficiencies of vitamins A, B-complex, C, D, calcium, iron, and zinc—and oral diseases [1–5]. Oral manifestations often serve as early indicators of systemic nutritional deficiency, allowing dental professionals to play a crucial role in early diagnosis and prevention. This review comprehensively discusses the role of nutrition in oral health, outlines the oral manifestations of specific nutrient deficiencies, and emphasizes their clinical relevance in dental practice.

KEY WORDS: Nutrition; Nutritional deficiencies; Oral health; Periodontal disease; Dental caries