

METADATA

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Abstract

This book focuses on dental caries, the primary disease affecting hard dental tissues and the leading cause of tooth loss. The content describes and analyzes the etiology of dental caries, emphasizing the role of biofilms, the formation of dental microbial plaque (DMP), the ecology of the oral environment, and their interrelationship with the disease. The role of the host, the tooth, and saliva is examined, alongside the physicochemical interactions between the oral environment and hard dental tissues. The processes of demineralization and remineralization are clarified to provide a comprehensive understanding of caries development. The book outlines the stages of the histopathological zones of enamel

and dentin caries and correlates them with the clinical presentation of the lesions. Various forms and common clinical patterns of carious lesions are described, providing diagnostic insight. All modern diagnostic methods for caries are presented and analyzed, with particular emphasis on clinical examination, radiography, and fluorescence-based techniques. Key epidemiological indicators are discussed, including the widely used caries indices dmfs and DMFT. Finally, the book addresses non-invasive approaches to managing carious lesions. It analyzes the roles of oral hygiene, fluoride, antimicrobial and calcifying agents, and dietary guidance in the prevention and treatment of incipient carious lesions.









