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Foreword

Worldwide dental and oral medicine has undergone tremendous and very rapid development both theoretically and technically during the last two or three decades. The requirements of patients also have been increased qualitatively and quantitatively, and dentists must respond well to such social interest.
The dentist is a specialist in diseases of the dental and stomatognathic system and must have sufficiently developed knowledge about biological specialties of the stomatognathic structures and functions. He must also instruct the citizen as regards healthy oral conditions. Therefore, not only practical clinical problems but also all kinds of fundamental problems concerning the oral and dental systems should be adequately considered in the dental field.

From this philosophical standpoint, dentists must reaffirm the importance of mastication and consider the practical application of recent physiological concepts to the dental practice.

The mouth performs various physiologic functions such as chewing, sucking, tasting, speaking, whistling, swallowing, vomiting, sneezing, and so on. Among these functions of the mouth, mastication of food is one of the most important human functions. The entire process carried out in the oral and pharyngeal cavity while chewing food is called 'mastication' and is essential for the preparation of food for swallowing and digestion. Mastication is also an important action in attaining psychic contentment from feeding and chewing.

Mastication is a complex physiologic phenomenon and is performed by a series of highly coordinated functions involving various parts of the stomatognathic system. Therefore, in spite of voluminous recent works on functions of the elemental structures of the stomatognathic system, systematic studies on mechanisms and effectiveness of mastication as a whole are most necessary.

The aim of this monograph is to introduce the most reliable concept concerning the mechanisms and effectiveness of mastication in a systematic way. In producing a text on mastication from this point of view, a wide variety of basic biological sciences and clinical disciplines is necessarily included to make the volume useful. For this reason this work includes recent concepts of scientists on an international basis from medical, dental, and food science fields in order to present knowledge of all aspects of the subject. These authors outline the study that is necessary to understand the mastication entity and to apply modern scientific concepts on mastication to the daily dental practise.