

## The Orthodontic Patient: Treatment and Biomechanics (2003)

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With the exception of the first chapter, which has the title 'Basic biological principles', the contents of this book are focused on clinical orthodontics. It is intended to be complementary to a previous publication by the same authors—*Diagnosis of the orthodontic patient*. In the preface, the authors point out that the present book is aimed primarily at the undergraduate dental student. It is also, however, recommended as suitable literature for general dental practitioners with an interest in orthodontics and for those who are at the start of their postgraduate training.

Chapter 1 deals with the biological principles of tooth movement. Bone, collagen, and cartilage and their reactions to mechanical load are discussed at a cellular level. However, for those readers who lack sufficient knowledge of cell biology and biochemistry it could be difficult to understand the text in spite of the good diagrammatic illustrations of these very complex processes. Many substances and the roles they play in the process of bone remodelling are mentioned in the text. In order to fully understand the descriptions and the significance of these substances in the interactions between the cells and their surrounding tissues, the reader would need to be rather well acquainted with this particular field. Without sufficient background knowledge the reading of this chapter could be heavy and difficult. However, 55 references are listed at the end of the chapter and these provide a valuable source of further information about this field of research.

The following eight chapters are concerned with clinical orthodontics. In them, the authors describe and discuss dentofacial classification, removable appliances, functional appliances, headgear treatment, fixed appliances, orthodontic materials, multidisciplinary treatments, and finally iatrogenic problems related to orthodontic treatments. At the end of each chapter

there is a summary of the contents, a description of the objectives of the chapter, and a substantial reference list. There are ample illustrations and figures (black and white) which support the text and make the presentation and understanding of the various orthodontic procedures easily comprehensible. A general feature throughout is that the authors have striven to describe the principles of orthodontics on the basis of relevant modern literature. Where controversies or different opinions prevail regarding treatment methods, design of appliances, classification, etc., the alternative ideas are accounted for and discussed in a balanced way.

The final chapter in the book—'Iatrogenic problems'—is a very valuable survey of the possible adverse effects which may be associated with orthodontic treatment. In most orthodontic textbooks, information about this important issue is limited to a brief discussion about the risk of root resorption. In the present chapter, however, a detailed description is given of both extraoral (diagnostic injury, treatment injury, heat, allergies, chemical injury, TMJ problems) and intraoral (soft tissue damage, periapical pathology, damage to the enamel of the teeth) problems with which the clinician might be confronted.

In conclusion, this publication presents the subject of clinical orthodontics in an easily digestible way without delving too deeply into the theoretical background of the various issues. For this reason, it could well form a very useful part in the basic literature of a course in orthodontics. For those who want to penetrate the topics dealt with more extensively, the reference lists at the end of each chapter provide a good selection of papers for additional reading.

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