

movements. The final section comprises a series of appendices, which are a collection of sample letters to practitioners, patients and parents.

The enthusiasm for clinical orthodontics of the main author and contributors is apparent throughout the

book. This is a great collection of tips and advice, and I have no doubt that orthodontists would find it an interesting and enjoyable read, regardless of their level of experience.

Chris Johnston

Dental biomechanics (2003)

Editor: Arturo N. Natali

Publisher: Taylor & Francis Books, London, UK

Price: £72.99

ISBN: 0-415-30666-3

This small but compact book is an in-depth overview of the biomechanics of dental tissues and selected dental materials. Forty contributors analyse the mechanical properties of hard (bone) and soft [periodontal ligament (PDL)] tissues and materials (implants, archwires) in 12 chapters through a basic engineering approach. The distribution of various subjects (orthodontics, implantology) and disciplines (imaging, biomechanics) is somehow oddly structured. The book begins with two chapters on the biomechanics of bone and PDL. The last chapter (mechanics of materials), which should have preceded the material listed, from a context perspective, is listed at the end of the book. Perhaps the extensive use of integral functions made this chapter the closing text. Chapter 3 is a good summary of X-ray tomography and its applications to bone analysis (morphological, density), but could have been incorporated in Chapter 4. This chapter deals with quantitative and qualitative aspects of host bone in implant prostheses—both not directly related to the main subject of the book. Chapters 5 and 6 could be viewed more as aspects of materials science of titanium (manufacturing, production, raw material properties) rather than biomechanics. The following chapter (7) deals with the testing of the implant before its placement. Chapters

8 and 10 are of interest to orthodontists because they discuss the superelasticity of NiTi wires and various biomechanics during orthodontic treatment. Chapter 9 is irrelevant to mechanics or biomechanics, as it illustrates the placement of an implant. Chapter 11 is a numerical approach to dental biomechanics with the use of finite element analysis. Some of the biomechanical aspects of conventional prosthetic applications, such as crown–cement interfaces and loading of multi-unit bridges, are not included in the text.

It seems that the book is written for engineers who would like to see the application of these principles to clinical practice and familiarize themselves with various procedures. This is also implied by the overview of the page layout and general style, which resembles that of physics and engineering books with the absence of glossy colour illustrations, despite the book's high price. Although the text lacks a specific clinical target group, as the range of clinical subjects is narrow and mostly related to orthodontics and implants, it may be an ideal working tool for scientists in the field of biomechanics and mechanics of materials.

Theodore Eliades