

is made using the premolars, group function should be developed.

The occlusal contacts on a simple cantilever bridge must be in ICP on both units but the pontic must be free of any lateral contacts. This reduces the lateral forces on the pontic that would otherwise cause a lever effect, forcing the bridge to rotate outwards.

## CONCLUSION

The basic principles in restoring anterior and posterior teeth have been discussed, highlighting the necessity for careful preoperative planning. The conformative approach is applicable to most patients: reorganizing an

occlusion requires a high level of skill and knowledge from both technician and clinician to ensure a good result.

A functional dynamic approach to occlusion based on theoretical principles is a useful concept in restorative dentistry. Most patients require little more than an acceptance of their existing occlusions, ensuring that restorations fit into their individual schemes, providing they are harmonious and stable. There are a number of approaches to extensively reorganizing the occlusion that will produce an acceptable result, providing the underlying principles of each theory are fully understood and their individual practical application adhered to.

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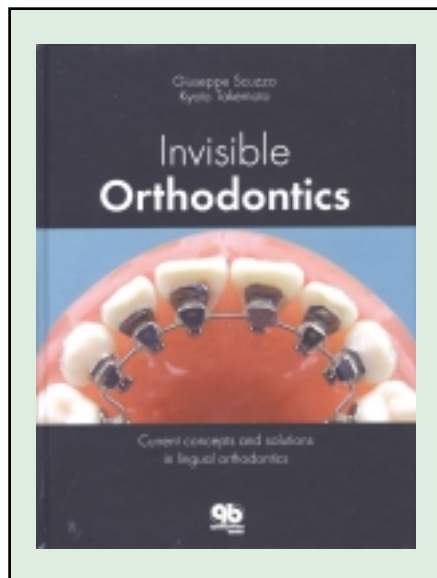
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## BOOK REVIEW

**Invisible Orthodontics: Current Concepts and Solutions in Lingual Orthodontics.** By Giuseppe Scuzzo and Kyoto Takemoto. Quintessence Books, New Malden, 2002 (173 pp., £65.00 h/b). ISBN 3-87652-181-5.

Lingual orthodontics has been part of the orthodontic profession for some time, although apparently only about 10,000 orthodontic cases are treated using this technique in Europe, Japan and the USA. Considering the high numbers of orthodontic cases treated each year worldwide, the number of clinicians using lingual orthodontics must be very small.

The authors have written this book largely on their own experiences and are well supported with excellent illustrations of case studies. The book starts by introducing the topic of lingual orthodontics aimed at specialist orthodontists. It skips over the diagnostic and therapeutic considerations in lingual orthodontics and suggests useful hints for successful treatment. These include the use of loop mechanics, power arm auxiliaries and force delivery systems and mechanics in lingual orthodontic extraction cases. Two chapters of the book are devoted



to four different laboratory techniques in the pre-clinical set-up of lingual orthodontics. The book seems to emphasize the reliance upon good technicians and laboratory facilities which may be a reason for its limited use.

The well illustrated case reports indicate how the lingual appliance technique can be utilized to a high standard. The malocclusions presented certainly require some lateral thinking and boldness in execution, even for most well-seasoned orthodontists. Two contrasting biomechanics, closing loops and sliding mechanics, are

illustrated at different stages of treatment. Advantages and pitfalls of the treatment mechanics are mentioned as the cases progress to completion. The precision involved in loop mechanics not only bears a heavy resemblance to laborious wire bending in edgewise mechanics, but seems more demanding when trying to fit these systems intra-orally. Sliding mechanics also requires greater care because the force moment ratios are applied differently from the lingual aspect and these then tend to tip teeth in unwanted directions. In the final chapter, the authors describe the various ways in which the finished results are retained with lingual retainers, clear positioning splints and transparent retainers.

This book will be of interest to postgraduate students and orthodontic practitioners who want to develop a private 'invisible orthodontics' practice. It provides an excellent overview of the lingual technique and has brought to light the immense technical skills from both laboratory and clinician in the treatment of a single case. Although this book is not fully comprehensive, it does provide a structured approach to lingual orthodontics.

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