Atlas of Cone Beam

Volumetric 3D Images

Safety in Implantology and General Dentistry

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EDIZIONI BDD - Monsummano Terme - Pistoia - Italy
To my primary school teacher
Margherita Zardo

To Ale and Stefi

To Sonia
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Chapter 1
This book is for all those dentists who firmly believe that diagnosis is the key to providing the safest, best therapy based on anatomical evidence.

This is not meant to be a complete operating manual, but simply an uncomplicated and practical guide to help dentists become aware of a revolutionary radiological investigation into the world of dentistry. More importantly, this guide aims to stimulate discussion about a subject that has started changing the way we practise our profession.

CBCT (Cone Beam Computed Tomography) or CBVI (Cone Beam Volumetric Imaging) or DVT (Digital Volume Tomography) is aimed at replacing conventional CT, in dentistry, particularly because of the significantly reduced exposure of patients to the amount of radiation needed and for the high quality of images provided.

Each of the topics mentioned can and should be further developed with theoretical and practical information gained from specialized and qualified professionals and institutions. The dentist works among a conflict of norms. On the one hand he must respect legislation about radio-protection that limited the use of various radiological examinations such as conventional CT scan, with the introduction of the "principle of justification" and the "principle of optimisation". On the other hand, to comply with health and safety standards, such examinations are required to ensure that the safest and most effective results possible are obtained. This conflict has now been partially resolved with the introduction of Cone Beam equipment that can provide most of the information the dentist needs using a low dose of radiation. Now the dentist can work with more safety, also respecting the norms on the radioprotection.
This book shows how new Cone Beam technology can be applied to and optimised for various dental specialist applications. All the images presented in this book have been acquired and processed using Scanora 3D Cone Beam device made by Soredex.