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Questions; 4 Medical Imaging and Visualisation; 4.1 Computed Tomography; 4.2 Virtual Intravascular Endoscopy; 4.2.1 Generation and Presentation of VIE; 4.2.2 Generation of VIE Images; 4.2.3 Threshold Range Along the Abdominal Aorta; 4.2.4 Optimal Threshold Selection 4.2.5 Generation of VIE Images with Aortic Stent and Artery Lumen Together4.2.6 Aortic Stent Wire Thickness VIE Images; 4.2.7 Image Display and Interpretation; 4.3 Optimal CT Scanning Protocols for VIE Visualisation; 4.4 Summary; 4.5 Questions; 5 Treatment of Aneurysms; 5.1 Introduction; 5.2 Open Surgery; 5.3 Minimally Invasive Techniques; 5.4 Medical Image Visualisation; 5.5 Technical Limitations; 5.6 Medical Imaging and Geometrical Reconstruction; 5.7 Conformance with Preliminary Concept; 5.8 Summary; 5.9 Questions; 6 Endovascular Stent Grafts; 6.1 Review of Device
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Sommario/riassunto

This book presents a road map for applying the stages in conceptualization, evaluation, and testing of biomedical devices in a systematic order of approach, leading to solutions for medical problems within a well-deserved safety limit. The issues discussed will pave the way for understanding the preliminary concepts used in modern biomedical device engineering, which include medical imaging, computational fluid dynamics, finite element analysis, particle image velocimetry, and rapid prototyping. This book would undoubtedly be of use to biomedical engineers, medical doctors, radiologists, and any other professionals related to the research and development of devices for health care.
