1. Record Nr. UNINA9910369931703321

Titolo	Vessel Based Imaging Techniques : Diagnosis, Treatment, and Prevention / / edited by Chun Yuan, Thomas S. Hatsukami, Mahmud Mossa-Basha
Pubbl/distr/stampa	Cham : , : Springer International Publishing : , : Imprint : Springer, , 2020
ISBN	3-030-25249-3
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (xv, 356 pages) : illustrations (some color)
Disciplina	616.0757 616.13075
Soggetti	Radiology Interventional radiology Radiologic technologists Diagnostic Radiology Ultrasound Interventional Radiology Radiologic Technologists
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Part 1: Intracranial -- Vascular Dysfunction and Neurodegenerative Disease -- Current Imaging Approaches and Challenges in the Assessment of the Intracranial Vasculature -- Advanced Intracranial Vessel Wall Imaging and Future Directions -- Part 2: Carotid -- Atherosclerosis of the Carotid Artery -- Current Imaging Approaches and Challenges in the Assessment of Carotid Artery Disease -- Advanced Carotid Vessel Wall Imaging and Future Directions -- Part 3: PAD -- Peripheral Artery Disease: An Overview -- Current Imaging Approaches and Challenges in the Assessment of Peripheral Artery Disease -- Advanced Peripheral Artery Vessel Wall Imaging and Future Directions -- Part 4: Aorta -- Imaging Approaches for Aortic Disease -- Part 5: Coronary -- Pathophysiology of Coronary Artery Disease -- Current Imaging Approaches and Challenges in the Assessment of Coronary Artery Disease -- Advanced Coronary Artery Vessel Wall

Imaging and Future Directions -- Part 6: Techniques -- Image Processing: What is needed and unique for vessel wall imaging? -- Vessel Wall Imaging in the Era of Artificial Intelligence -- Part 7: Hemodynamic -- Hemodynamical Aspects of Vessel Wall Imaging: 4D Flow -- Computational Fluid Dynamics for Evaluating Hemodynamics. .

Sommario/riassunto

This book provides comprehensive information on new and existing vessel imaging techniques, with the intention of improving diagnosis, treatment, and prevention of vascular and related diseases. In recent years, vessel wall imaging has expanded greatly into other beds (such as the intracranial and peripheral arteries) and many of the techniques available for evaluation and diagnosis have only previously been published in research papers. This book bridges that gap for clinicians, applying cutting edge research to their everyday practice. The first six sections of the book are centered around individual vessel beds. These chapters will teach clinicians the multi-modality imaging techniques available to image these vessels and related pathology with a focus on new imaging tools and techniques. The final two sections of the book will offer a more comprehensive technical background aimed at imaging scientists for the imaging techniques used and the relationship of blood flow and modeling to disease monitoring and prevention. This is an ideal guide for radiologists and imaging scientists looking to learn the latest techniques in vessel imaging.