

## I Oct In Glaucoma Interpretation Progression And

This book serves as an introductory reference on clinical aspects of glaucoma and myopia, providing essential guidelines for diagnosis and monitoring of glaucoma progression in patients, especially those with high myopias. Many clinical studies are presented by leading experts in the field in an accessible style, making the content suitable not only for ophthalmologists but also for optometrists and certified orthoptists as well as for students. The relation between myopia and glaucoma has been the subject of many clinical trials and population-based studies. Most of the data has suggested that moderate to high myopia is associated with increased risk of primary open-angle glaucoma, normal tension glaucoma, and ocular hypertension. There are several factors involved in the diagnosis of glaucoma, but it is often difficult to determine the presence of glaucoma in myopic eyes. A myopic eye, especially in cases of moderate to high myopia, tends to have a thin retina and choroid and to appear thinner than normal. Even with new imaging technologies with improved sensitivity and specificity for detecting glaucoma, each technology presents some challenges when assessing myopic eyes. This book furnishes an overview of these diagnostic challenges with reference to the growing prevalence and severity of myopia in various parts of the world, providing many valuable hands-on reports and clinical studies by authoritative authors. This knowledge will help to do away with the vague area between high myopia and glaucoma faced by clinicians.

I am very proud and excited to introduce to you this book, which provides many interesting indications on how to better understand and handle the world of optical coherence tomography (OCT). Reading the chapters, you will be aware that this device is extremely important not just in the clinical practice of retinal diseases, but is also very useful as a surgical tool. Moreover, application of OCT has crossed the borders of the retina and is currently being applied to corneal diseases and glaucoma. I am confident you will find enough useful information to improve your practice using OCT and to provide a better quality of care for your patients.

OCT Angiography by David R. Chow and a cadre of renowned authors is an authoritative, richly illustrated guide on a groundbreaking new ophthalmic imaging technique. Optical coherence tomography angiography is revolutionizing ophthalmologic diagnosis and management of retinal disease. The technology is transforming the ocular disease diagnostic paradigm - from the retina to the choroid - enabling precision-tailored patient management. Noninvasive and more sophisticated than fluorescein angiography, OCTA obviates the need for dye and yields an unprecedented level of detail. The layered visualization of the retina and choroid vasculature delivers greater understanding of retinal disease. From sight-robbing eye diseases affecting millions such as age-related macular degeneration, diabetic retinopathy, and glaucoma - to rare conditions like adult-onset vitelliform macular dystrophy, readers will glean insights on the capabilities of this remarkable innovation. Key Features Hands-on pearls from trailblazers who have pioneered and implemented the use of OCTA in clinical practice Dedicated chapters on AMD, diabetic retinopathy, retinal venous occlusions, arterial occlusions, central serous chorioretinopathy, macular telangiectasia type 2, adult-onset vitelliform macular dystrophy, and high myopia Expanding indications for uveitis, ocular oncology, radiation retinopathy, glaucoma, the anterior segment, as well as future applications Grand Rounds cases include a wealth of multimodal images and highly informative learning points This exceptional resource is a must-have for every ophthalmology resident and practitioner. The comprehensive text coupled with high quality illustrations will enable ophthalmologists to leverage the full potential of this technique in daily practice.

Rapid or even dramatic progress has been made in the field of AMD over recent years, leading to a constant revision of basic concepts. A wide range of fundus imaging modalities are now available, and this book explains the respective value of each technique. The information provided by OCT is presented logically by comparison with plain films, autofluorescence, fluorescein angiography, or indocyanine green angiography. Meticulous biomicroscopic examination of macular changes and the essential value of fluorescein angiography for the detection of anatomical alterations of the macula and for precise evaluation of lesions and their course by indocyanine green angiography have naturally led the author Gabriel Coscas to analyze the new data provided by OCT.

Diagnosis and Management of Glaucoma

Myopia and Glaucoma

Optical Coherence Tomography in Age-Related Macular Degeneration

A Practical Guide

Diagnostics in Ocular Imaging

*Arguably the most important ancillary test available to ophthalmologists worldwide, optical coherence tomography (OCT) has revolutionized the field, and now includes angiographic evaluations (OCTA) that provide vascular flow data without eye injection. Handbook of Retinal OCT is an easy-to-use, high-yield guide to both OCT and OCTA imaging for practitioners at any stage of their career. Highly templated, concise, and portable, this revised edition helps you master the latest imaging methods used to evaluate retinal disease, uveitis, and optic nerve disorders. Helps all health professionals with an interest in OCT to better and more quickly interpret OCT imaging, offering quick, highly visual guidance for evaluating age-related macular degeneration, diabetic retinopathy, retinal vein occlusion, and much more. Provides quick answers with bulleted, templated chapters, each focused on one specific diagnosis or group of diagnoses with a particular OCT appearance. Demonstrates how the full spectrum of diseases presents through approximately 400 illustrations, including the highest-quality spectral-domain OCT images available and more than 50 new OCTA images. Includes five new chapters covering optic nerve disease with retinal findings, pachychoroid diseases, paracentral acute middle maculopathy (PAMM), auto-immune retinopathies, and primary uveal lymphoma. Offers clear visual guidance on image patterns with multiple arrows and labels throughout to highlight key details of each disease.*

*This book provides an overview on new insights in glaucoma, the latest technological developments, scientific achievements, and novel research leading to new paradigms in glaucoma diagnosis. Readers will discover a broad picture starting from theoretical perspectives in diagnostic criteria followed by practical examination and clinical interpretations while highlighting potential pitfalls and limitations in analysis. Non-invasive, modern technologies allowing visualization and quantification of various parts of the human eye are fast evolving and improving interpretation of modern diagnostic possibilities are essential to fill the gap between sophisticated equipment, complex clinical data, and the need for precision-*

*medicine based interpretation. Issues such as the importance of intraocular, intracranial, and ocular perfusion pressures (IOP, ICP, OPP) in the pathogenesis of glaucoma; and imaging modalities for examination of the optic nerve head, retinal fiber layer, and visual field assessment in glaucoma are explored in these chapters. The problem-based learning approach presented herein offers a succinct go-to-guide to read and discover answers.*

*This book focuses on the practical aspects of Optical Coherence Tomography (OCT) in glaucoma diagnostics offering important theoretical information along with many original cases. OCT is a non-invasive imaging technique that acquires high-resolution images of the ocular structures. It enables clinicians to detect glaucoma in the early stages and efficiently monitor the disease. Optical Coherence Tomography in Glaucoma features updated information on technical applications of OCT in glaucoma, reviews recently published literature and provides clinical cases based on Cirrus and Spectralis OCT platforms. In addition, newer techniques like event and trend analyses for progression, macular ganglion cell analysis, and OCT angiography are discussed. This book will serve as a reference for ophthalmologists and optometrists worldwide with a special interest in OCT imaging providing essential guidance on the application of OCT in glaucoma.*

*This book presents a new avenue in the field of ophthalmology and sheds light on the field of eye imaging. With the increasing availability of electronic devices and their important role in both personal and professional aspects of human life, there is a growing need for perfect vision. Ophthalmic imaging is a major tool for screening and documenting eye diseases in both medical and surgical fields of ophthalmology and is also of use for ophthalmologists around the globe. The number of eye-imaging devices has increased dramatically, however undiagnosed or poorly managed eye diseases remain a significant cause of ocular and visual problems worldwide. This essential guide addresses the need for a book that is dedicated to ophthalmic imaging, covering the cornea, glaucoma, retina and orbital imaging with updates on medical and surgical aspects of the topic.*

*OCT and Imaging in Central Nervous System Diseases*

*Imaging the Eye from Front to Back with RTVue Fourier-domain Optical Coherence Tomography*

*Handbook of Retinal OCT: Optical Coherence Tomography E-Book*

*Anterior Segment Optical Coherence Tomography*

*A Practical Guide to Clinical Application of OCT in Ophthalmology*

This book is to help optical coherence tomography (OCT) users interpret images that, at the beginning, may look very complex and bewildering. We use a logical method for interpreting OCT images. The first phase of analysis subdivides each image into its smallest components. The second phase combines these fine details to arrive at a synthesis; from then, to an accurate diagnosis and decide an appropriate therapy. This manual features detailed schematic illustrations as well as actual scans, and is a step-by-step guide for interpreting images acquired by spectral domain OCT. It gives information on technical and clinical possibilities in the study of glaucoma and on three dimensional images. This book help the readers reach logical interpretations of the OCT scans and assist OCT users in the difficult task sifting through the mass of data to extract useful information.

Introduction We mark the eighth consecutive year for the World Glaucoma Association Glaucoma Consensus with Consensus VIII. Our topic is the Progression of Glaucoma. Global experts were invited and assembled by our international co-Chairs beginning in January 2011, to participate in the Project Forum E-Room, a unique online opportunity to facilitate discussion of each of the consensus meetings. Participants then were engaged in the discussion of five topical areas to reach consensus on key issues that surround and permeate all aspects of the progression of glaucoma. The results of these thoughtful discussions then were summarized by each of the sections with preliminary consensus statements. The Draft of the Consensus Report, including the preliminary consensus statements, was distributed to the Society and Partners for review and comments prior to the Consensus Meeting that took place in Paris on Tuesday, June 28, 2011. On this day relevant stakeholders engaged in a stimulating, educational, and thought-provoking session that highlighted the review and revision of the consensus statements. The Consensus Report then was finalized by Consensus co-Chairs and Editors. Consensus statements were reviewed and finalized by the expert Consensus Panel. Robert N. Weinreb, Editor

"Optical Coherence Tomography of Ocular Diseases, Fourth Edition covers a range of subjects, from principles and operation techniques to clinical interpretation and the latest innovations in OCT. This book is an essential text for imaging technology. OCT now occupies a dominant role as a diagnostic tool for retinal conditions and glaucoma. At the same time, the technology continues to show potential for emerging clinical and research applications across all the ophthalmological subspecialties. To reflect these rapid advances, this new edition of Optical Coherence Tomography of Ocular Diseases features a complete and thorough revision of the existing text as well as the addition of cutting edge content to bring this classic resource completely up to date"--

"The recent introduction of optical coherence tomography angiography (OCTA) has remarkably expanded our knowledge of different retinal, chorioretinal, and optic disc disorders. OCTA is nowadays often introduced as a routine exam in clinical practice, granting the opportunity to non-invasively investigate retinal and choroidal circulation. In this book, many major experts in posterior eye imaging share their experiences and their latest images and ideas about OCTA"--

Progression of glaucoma

Atlas and Text

Cornea, Retina, Glaucoma and Orbit

Diagnostic Technologies

(retina, Choroid, Glaucoma)

Since long ago scientists have been trying hard to show up the core of glaucoma. To its understanding we needed to penetrate gradually to its molecular level. The newest pieces of knowledge about the molecular biology of glaucoma are presented in the first section. The second section deals with the clinical problems of glaucoma. Ophthalmologists and other medical staff may find here more important understandings for doing their work. What would our investigation be for, if not owing to the people 's benefit? The third section is full of new perspectives on glaucoma. After all, everybody believes and relies – more or less – on bits of hopes of a better future. Just let us engage in the mystery of glaucoma, to learn how to cure it even to prevent suffering from it. Each information in this book is an item of great importance as a precious stone behind which genuine, through and honest piece of work should be observed.

Adequate blood supply to the eye is an important prerequisite for normal visual function. Over the past 40

years our knowledge of ocular blood flow regulation has improved significantly. This reader-friendly textbook provides a comprehensive overview of the current knowledge of ocular blood flow. Lavishly illustrated, it evaluates the wide array of methods that have been used to measure ocular blood flow. Furthermore, it not only offers the reader an evidence-based summary of the physiological and pharmacological properties of ocular blood flow regulation, but also demonstrates the ocular blood flow abnormalities in different vascular diseases. This book will enhance the understanding of all who are interested in learning more about ocular blood flow in health and disease.

Serving as a practical guide to the ocular imaging modalities that are currently available to eye care providers for the care of glaucoma patients, this book provides information on advances in ocular imaging and their applications in the diagnosis and management of glaucoma. Each chapter introduces the imaging modality, highlight its strengths and weaknesses for clinical care, and discuss its integration into the clinical examination and decision-making process. The chapters also provide an in-depth description of the interpretation of images from each imaging modality. When appropriate, the chapters will summarize past and ongoing research and propose future research directions and clinical applications. This title will appeal to ophthalmologists and optometrists at all levels, from trainees to experienced clinicians looking to learn new and important information.

OCT provided a great advantage over other diagnostic modalities, as it could noninvasively provide tomographic images of the retina of a living eye. As a result, a number of new findings in retinal diseases were made using the time-domain OCT. OCT has now become an essential medical equipment OCT has now become an essential medical equipment in ophthalmic care and quality textbooks describing the functionality of OCT are very important in the education of young ophthalmologists and eye care personnel. In this book are chosen high quality OCT images of rather common diseases as well as images of several rare diseases.

Advances in Ocular Imaging in Glaucoma

OCT Angiography

Handbook on Optical Coherence Tomography

Clinical Applications of Optical Coherence Tomography Angiography

Imaging in Glaucoma

The second edition of OCT and Imaging in Central Nervous System Diseases offers updated state-of-the-art advances using optical coherence tomography (OCT) regrading neuronal loss within the retina. Detailed information on the OCT imaging and interpretation is provided for the evaluation of disease progression in numerous neurodegenerative disorders and as a biological marker of neuroaxonal injury. Covering disorders like multiple sclerosis, Parkinson's disease, Alzheimer's disease, intracranial hypertension, Friedreich's ataxia, schizophrenia, hereditary optic neuropathies, glaucoma, and amblyopia, readers will given insights into effects on the retina and the and optic nerve. Individual chapters are also devoted to OCT technique, new OCT technology in neuro-ophthalmology, OCT and pharmacological treatment, and the use of OCT in animal models. Similar to the first edition, this book is an excellent and richly illustrated reference for diagnosis of many retinal diseases and monitoring of surgical and medical treatment. OCT allows to study vision from of the retina to the optic tracts. Retinal axons in the retinal nerve fiber layer (RNFL) are non-myelinated until they penetrate the lamina cribrosa. Hence, the RNFL is an ideal structure for visualization of any process of neurodegeneration, neuroprotection, or regeneration. By documenting the ability of OCT to provide key information on CNS diseases, this book illustrates convincingly that the eye is indeed the "window to the brain".

This text presents a comprehensive evaluation of the recent and emerging imaging technologies for the clinical assessment of glaucoma. It should provide an understanding of the technology that is available and the results to expect from each method.

Complete evidence-based medical and surgical management of glaucoma for both the general ophthalmologist in practice and residents The only book that covers the new generation of glaucoma procedures including trabectome, trabecular bypass and canaloplasty, by the experts who developed them Includes the latest laser treatments for glaucoma including micro diode and titanium sapphire trabeculoplasty as well as laser from an external approach The most comprehensive coverage of the optic nerve and the importance of nerve fiber layer hemorrhage Provides an integrated approach to neovascular glaucoma merging treatment to the retina, with the use of new anti-VEGF drugs, tubes, and shunts to achieve the best outcome Integrates clinical science with basic science to outline the next steps in glaucoma therapy

Atlas of Optical Coherence Tomography for Glaucoma is a case-based atlas intended to teach the reader how to interpret the results of OCT in glaucoma patients and glaucoma suspects. After a brief description of how OCT is used in particular situations, chapters depict actual case presentations from authors' practices with legends that describe the case and how OCT is used to make the diagnosis of glaucoma or glaucoma progression. Emphasis is placed on where OCT can lead the clinician astray by providing false positive or false negative results resulting in misdiagnosis. The intention of the format is to make it easily digestible in a weekend read and make the practitioner comfortable with OCT interpretation. Examples are presented from all of the available OCT manufacturers.

Handbook of Pediatric Retinal OCT and the Eye-Brain Connection E-Book

Technology and Applications

Ocular Blood Flow

The Optic Nerve in Glaucoma

Optical Coherence Tomography of Ocular Diseases

**This book brings together both a review and updates in clinical and research areas. The chapters will be of interest to a wide audience. On one hand, the review and update of clinical practices will interest students and residents, on the other, cutting**

edge research chapters will be of interest to the researchers in the field. The book is divided into four parts: 1) Review and Updates in Diagnostic Testing, 2) Updates in Anterior Segment Diseases, 3) Updates in Posterior Segment Diseases, and 4) Updates in Research in Ophthalmology, Optometry and Vision Science. The chapters are written by experts and individuals with special interests in topics with a focus on clinical application and translational benefit to eye care.

This open access book provides a comprehensive overview of the application of the newest laser and microscope/ophthalmoscope technology in the field of high resolution imaging in microscopy and ophthalmology. Starting by describing High-Resolution 3D Light Microscopy with STED and RESOLFT, the book goes on to cover retinal and anterior segment imaging and image-guided treatment and also discusses the development of adaptive optics in vision science and ophthalmology. Using an interdisciplinary approach, the reader will learn about the latest developments and most up to date technology in the field and how these translate to a medical setting. High Resolution Imaging in Microscopy and Ophthalmology – New Frontiers in Biomedical Optics has been written by leading experts in the field and offers insights on engineering, biology, and medicine, thus being a valuable addition for scientists, engineers, and clinicians with technical and medical interest who would like to understand the equipment, the applications and the medical/biological background. Lastly, this book is dedicated to the memory of Dr. Gerhard Zinser, co-founder of Heidelberg Engineering GmbH, a scientist, a husband, a brother, a colleague, and a friend.

Concise guide to use of OCT for diagnosis of glaucoma. Presents advantages and common pitfalls. Describes OCT for analysis of associated parts of eye.

Optical Coherence Tomography - Atlas and Text covers the multiple uses and interpretation of OCT and its various applications in ophthalmology related to the posterior segment and the retina. The book presents the diagnosis and management of glaucoma, age related macular degeneration, the integration of OCT and fluorescein angiography and the diagnosis and management of ocular tumors.

Atlas of Optical Coherence Tomography for Glaucoma

The Glaucoma Book

OCT Atlas

Biophysical Properties in Glaucoma

Optical Coherence Tomography in Glaucoma

Optical coherence tomography (OCT) is the optical analog of ultrasound imaging and is emerging as a powerful imaging technique that enables non-invasive, in vivo, high resolution, cross-sectional imaging in biological tissue. This book introduces OCT technology and applications not only from an optical and technological viewpoint, but also from biomedical and clinical perspectives. The chapters are written by leading research groups, in a style comprehensible to a broad audience.

High-speed anterior segment optical coherence tomography (OCT) offers a non-contact method for high resolution cross-sectional and three-dimensional imaging of the cornea and the anterior segment of the eye. As the first text completely devoted to this topic, Anterior Segment Optical Coherence Tomography comprehensively explains both the scientific principles and the clinical applications of this exciting and advancing technology. Anterior Segment Optical Coherence Tomography enhances surgical planning and postoperative care for a variety of anterior segment applications by expertly explaining how abnormalities in the anterior chamber angle, cornea, iris, and lens can be identified and evaluated using the Visante OCT™. Inside Anterior Segment Optical Coherence Tomography, Dr. Roger Steinert and Dr. David Huang, along with 22 of the field's leading professionals, provide a wealth of useful clinical and physiological material about this new diagnostic imaging technique. Valuable images are included to assist in the pre- and postoperative assessment of various anterior segment disorders. Additionally, this unique resource contains detailed information on biometric measurements to enhance diagnostic capability. On the leading edge of anterior segment imaging:

- Mapping of corneal thickness and keratoconus evaluation
- Measurement of LASIK flap and stromal bed thickness
- Visualization and measurement of anterior chamber angle and diagnosis of narrow angle glaucoma
- Measuring the dimensions of the anterior chamber and assessing the fit of intraocular lens implants
- Visualizing and measuring the results of corneal implants and lamellar procedures
- Imaging through corneal opacity to see internal eye structures

With the increase in popularity of anterior chamber imaging, and anterior segment OCT proving to be the best tool for high resolution biometry, Anterior Segment Optical Coherence Tomography is a must-have for anterior segment, refractive, cornea, and glaucoma surgeons.

This book provides readers with the most up-to-date practical information on optical coherence tomography (OCT) imaging in glaucoma. A key aim is to demonstrate how imaging results are interpreted and applied in clinical practice. To this end, many high-quality images are presented to document findings in patients with glaucoma, glaucoma suspects, and healthy subjects and to explain their clinical significance. The book is timely in that the role of OCT in the early diagnosis of glaucoma, the detection of disease progression, and the choice of management options has been advancing rapidly. OCT-based exploration of the segmented layer of the neural tissue and the deeper structures of the optic nerve, as well as OCT evaluation of the vascular network around the optic nerve head, facilitates understanding and assessment of the risk of glaucomatous damage. In explaining all aspects of the use of OCT in glaucoma, this book will be a rich source of information and guidance for practicing ophthalmologists, glaucoma specialists, and trainees.

Practical guidance on analysis and interpretation of OCT images, covering wide range of conditions including retinal disorders, glaucoma and neurologic disorders.

Ophthalmology

Pearls and Pitfalls

Glaucoma Imaging

New Frontiers in Biomedical Optics

Current Clinical and Research Updates

**Diabetes and Fundus OCT brings together a stellar cast of authors who review the computer-aided**

**diagnostic (CAD) systems developed to diagnose non-proliferative diabetic retinopathy in an automated fashion using Fundus and OCTA images. Academic researchers, bioengineers, new investigators and students interested in diabetes and retinopathy need an authoritative reference to bring this multidisciplinary field together to help reduce the amount of time spent on source-searching and instead focus on actual research and the clinical application. This reference depicts the current clinical understanding of diabetic retinopathy, along with the many scientific advances in understanding this condition. As the role of optical coherence tomography (OCT) in the assessment and management of diabetic retinopathy has become significant in understanding the vitreo retinal relationships and the internal architecture of the retina, this information is more critical than ever. Includes unique information for academic clinicians, researchers and bioengineers Provides insights needed to understand the imaging modalities involved, the unmet clinical need that is being addressed, and the engineering and technical approaches applied Brings together details on the retinal vasculature in diabetics as imaged by optical coherence tomography angiography and automated detection of retinal disease**

**This atlas offers a truly comprehensive update on the use of imaging technologies for the diagnosis and follow-up of glaucoma. In addition to standard automated perimetry, gonioscopy, fundus photography, and stereophotography, other advanced, high-resolution methods for imaging the eye in glaucoma are explained in detail, including ultrasound biomicroscopy, confocal scanning laser ophthalmoscopy, scanning laser polarimetry, and spectral domain optical coherence tomography. The role of the various tests and the keys to optimizing their use in clinical practice are detailed with the aid of high-quality figures in order to enable the reader to achieve the best possible performance when applying these tools. The risk of developing visual disability and blindness as a consequence of glaucoma varies widely among affected individuals. Personalized testing strategies and tailored therapeutic interventions are required to effectively reduce visual impairment due to glaucoma. Glaucoma Imaging will assist residents, researchers, and clinicians in improving their ability to understand and integrate the information obtained using traditional techniques with the reports provided by computer-assisted image instruments.**

**Optical coherence tomography (OCT) is a non-invasive imaging test that uses light waves to take cross-sectional pictures of the retina, the light-sensitive tissue lining the back of the eye (eyeSmart). The technique is recognised worldwide as an essential device for diagnosis, assessment and follow up of retinal diseases and glaucoma. The third edition of this comprehensive manual has been fully revised to provide clinicians and trainees with the most recent advances in OCT imaging. New examination and diagnostic protocols are covered in depth and this edition includes a step by step guide to data interpretation. Divided into three sections, the book begins with discussion on interpretation of OCT images, including 'en face' and dyeless angiography. The second section covers lesions and diseases, and part three explains new syndromes and classifications. Highly illustrated with clinical images and tables, this practical reference has been written by renowned experts based in Italy. Key points Practical guide to recent advances in OCT imaging Fully revised, new edition covers new examination and diagnostic protocols, with step by step guide to data interpretation Internationally recognised, Italy-based author team Previous edition (9789351525318) published in 2014**

**Optical Coherence Tomography (OCT) plays a vital role in pediatric retina diagnosis, often revealing unrecognized retinal disorders and connections to brain injury, disease, and delayed neurodevelopment. Handbook of Pediatric Retinal OCT and the Eye-Brain Connection provides authoritative, up-to-date guidance in this promising area, showing how to optimize imaging in young children and infants, how to accurately interpret these images, and how to identify links between these images and brain and developmental disorders. Illustrates optimal methods of OCT imaging of children and infants, how to avoid pitfalls, and how to recognize and avoid artifacts Explains how the OCT image may relate to brain disease and delayed neurodevelopment Features more than 200 high-quality images and scans that depict the full range of disease in infants and young children Provides guidance in identifying retinal layers and important abnormalities. Covers the structural features of the retina and optic nerve head in developmental, acquired, or inherited conditions that affect the eye and visual pathways Offers practical ways to set up imaging programs in the clinic, operating room, or neonatal nursery**

**Diabetes and Fundus OCT**

**The Eye as a Window to the Brain**

**Guide to Interpreting Spectral Domain Optical Coherence Tomography**

**Clinical Decisions in Glaucoma**

**High Resolution Imaging in Microscopy and Ophthalmology**

Fourier-Domain optical coherence tomography (OCT) is the latest technology available to provide high-speed, high-resolution imaging of the cornea, anterior chamber angle, macula, and optic nerve head. It is uniquely suited for ophthalmologists that treat diseases from the front to the back of the eye. Inside Imaging the Eye From Front to Back With RTVue Fourier-Domain Optical Coherence Tomography, Drs. David Huang, Bruno Lumbroso, Jay S. Duker, James G. Fujimoto, Joel S. Schuman, and Robert N. Weinreb cover up-to-date OCT technology and diagnostic software of the RTVue. It is the first book that covers clinical applications from the front to the back of the eye, as opposed to concentrating either on posterior segment imaging or anterior segment imaging. Inside you ' ll find: • Explanation of Fourier-Domain OCT technology • Teaching of scan pattern selection • Step-by-step instruction for scan acquisition • Teaching of the interpretations of OCT images and measurements by many case examples • Interpretation of en face images Some chapters covered: • Anterior segment • Cornea • Posterior segment • Retina • Age-related macular degeneration • Diabetic retinopathy • Glaucoma Imaging the Eye From Front to Back With

RTVue Fourier-Domain Optical Coherence Tomography is the must-have book for general ophthalmologists, glaucoma specialists, retina specialists, cornea specialists, and refractive surgeons, as well as biomedical engineers.

The goal of this book is to provide a quick reference for the busy Eye MD. The cases were selected from the thousands examined at the St. Luke's Medical Center International Eye Institute. There are two main sections- Retina and Glaucoma. The Retina section, which makes up a large part of the book, covers the more commonly encountered diseases in clinical practice. This section, which provides an introduction to interpretation, allows the reader to correlate OCT images with fundus pictures and angiograms. The Glaucoma section assists the clinician with analysis of the optic-nerve head and retinal-nerve fiber layer. -- Preface

A comprehensive and user-friendly guide on leveraging OCT for the management of glaucoma Optical coherence tomography (OCT) is a noninvasive diagnostic imaging modality that enables ophthalmologists to visualize different layers of the optic nerve and retinal nerve fiber layer (RNFL) with astounding detail. Today, OCT is an instrumental tool for screening, diagnosing, and tracking the progression of glaucoma in patients. Optical Coherence Tomography in Glaucoma by renowned glaucoma specialist Jullia A. Rosdahl and esteemed contributors is a one-stop, unique resource that summarizes the clinical utility of this imaging technology, from basics to advanced analyses. The book features 14 chapters, starting with introductory chapters that discuss development of OCT and its applications for visualizing the optic nerve and macula. In chapter 5, case studies illustrate OCT imaging of the optic nerve, RNFL, and macula in all stages of glaucoma, from patients at risk to those with mild, moderate, and severe diseases. The next chapters cover the intrinsic relationship between optic nerve structure and function, the use of structure–function maps, and examples of their relationship, followed by a comparison of commonly used devices and a chapter on artifacts. Anterior segment OCT is covered next, followed by chapters covering special considerations in pediatric glaucomas and in patients with high refractive errors. The final chapters cover innovations in OCT on the horizon including OCT angiography, swept-source OCT, and artificial intelligence. Key Highlights Illustrative case examples provide firsthand clinical insights on how OCT can be leveraged to inform glaucoma treatment. In-depth guidance on recognizing and managing artifacts including case examples and key technical steps to help prevent their occurrence. Pearls on the use of OCT for less common patient scenarios such as pediatric glaucomas and high refractive errors. Future OCT directions including angiography, swept-source, and the use of artificial intelligence. This practical resource is essential reading for ophthalmology trainees and ophthalmologists new to using OCT for glaucoma. The pearls, examples, and novel topics in this book will also help experienced clinicians deepen their knowledge and increase confidence using OCT in daily practice.

Glaucoma is an eye disease in which the optic nerve is damaged and can permanently damage vision and lead to blindness if left untreated. This book is a complete guide to the diagnosis and management of glaucoma. Divided into five sections, it begins with an introduction to the disease, continuing step by step through its diagnosis, the different types of glaucoma and treatment options. Authored by specialists renowned in their field based in India and the USA, this manual contains 840 images and illustrations.

Practical Handbook of OCT  
Optical Coherence Tomography  
The Mystery of Glaucoma  
A Guide for Practitioners  
(Retina, Choroid, Glaucoma)