

# PREFACE

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Evaluating the visual field poses two challenges. The first is how to measure the visual field and the second is how to interpret the results. *Field of Vision: A Manual and Atlas of Perimetry* provides the reader with the tools to meet both challenges. Through the joint venture of a neuro-ophthalmologist (JB) and a general neurologist (MB), the result is a text in which the expertise of the specialist is made accessible to the generalist.

Visual field testing at the bedside or in the clinic is a neglected art, often performed cursorily, leaving the clinician uncertain about the true extent of defects or, worse yet, whether defects are present at all. These days formal perimetry supplements bedside testing, but all of these procedures still need guidance from the examiner, and the best results require knowledge of both neuroanatomy and the pathologic patterns of disease. Many neurologists have such knowledge, but do not know how to operate perimeters. On the other hand, many ophthalmologists and optometrists have experience with perimeters, but do not have the neurologic information needed for truly expert perimetry. The goal of the first half of this book—the “manual”—is to give both groups the background they need to test visual fields, and to do it well.

We begin with two general chapters on perimetric concepts and visual anatomy. These are followed by specific chapters on the procedures and interpretive strategies used in bedside, manual, and automated perimetry. The focus is upon clinically relevant points, with enough detail for the examiner to understand what is actually happening to the patient during perimetry. More technical material is deferred to an appendix for readers interested in the principles behind visual testing. At the end of this first section the clinician should be able to sit down at a perimeter and test a patient.

The second challenge, the interpretation of perimetric data, requires experience. We are all familiar with cartoons of the visual field where black areas represent visual loss and white areas preserved vision. Perimetric data seldom looks like that. Borders of defects can be complex and irregular and there are often zones of partial loss. The resulting patterns on perimetric plots can bewilder the novice. In the second half of the book—the “atlas”—we present examples of real perimetric data aimed at developing the reader’s skills in recognizing these patterns.

The first part of the atlas contains 100 cases arranged in an anatomic progression from retina to striate cortex. The cases are presented in a form that will allow the reader to practice interpretation in a clinical context, by placing a brief clinical vignette with a visual field on one page, and the description of the field and the causal lesion on the reverse side. We provide the results of bedside testing so that the reader may acquire a feel for the correlation between bedside and formal perimetry. The accompanying discussion addresses the nuances of the field, considers some of the relevant clinical issues, and provides images of the lesions responsible wherever possible. We believe that these latter additions are particularly useful to ophthalmologists and optometrists, who may not be familiar with neuro-imaging or the clinical implications of the underlying diseases.

Last is a section of 20 visual fields arranged in random order. This is meant to provide a reader who has toiled through the preceding 100 cases a chance to practice their new expertise before heading for the clinic. If our readers find that they can detect the relevant abnormalities in these 20 fields, describe them, localize the lesions, and make a reasonable guess at pathology given the history, this book will have succeeded.

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## ACKNOWLEDGMENTS

Many of the visual fields in this book were performed by JB, but many others were done by perimetrists at Toronto Western Hospital, the University of Iowa Hospitals and Clinics, and Beth Israel Deaconess Medical Center, whose help and skill we acknowledge. Felix Tyndel assisted us with collecting data from the Toronto Western Hospital, and Chun Lim with photography of the perimeters. Mark Kuperwaser generously contributed some of the fields of the glaucoma patients. We also thank Rick Calderone for his ultrasound work. Finally we thank our patients, whose cooperation, endurance, and effort made this collection possible, and the many colleagues who referred them to us.

## DEDICATIONS

*JB:* to the family that raised me (Maurice, Violet, Sharon, and Rachel) and the family I am raising (Hannah, Alistair, and Caroline).

*MB:* to my grandmothers, and in memory of my grandfathers

Field of Vision

A Manual and Atlas of Perimetry

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2003, XI, 335 p. 232 illus., Hardcover

ISBN: 978-1-58829-175-2

A product of Humana Press