

1. Record Nr.	UNINA9910798145103321
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Titolo	Vision : how it works and what can go wrong / / John E. Dowling and Joseph L. Dowling, Jr
Pubbl/distr/stampa	Cambridge, Massachusetts : , : The MIT Press, , [2016] ©2016
ISBN	0-262-33357-0 0-262-33356-2
Descrizione fisica	1 online resource (233 p.)
Disciplina	612.8/4
Soggetti	Vision Eye - Physiology Ophthalmology Eye - Diseases
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Contents; Preface; About the Authors; Acknowledgments; 1 Visual Pathways, Eye Development, and Retinal Organization; 2 Focusing Light-Cornea and Lens; 3 Capturing Light-The Photoreceptors; 4 Analyzing the Visual Image-The Retina; 5 Beyond the Retina-Lateral Geniculate Nucleus and Visual Cortex; 6 Higher-Level Processing and Visual Perception; 7 Looking Back and Forward; Glossary; Further Reading; Index
Sommario/riassunto	"Over the past fifty years, enormous progress has been made in understanding visual mechanisms and treating eye disorders. And yet the scientist is not always aware of the latest clinical advances and the clinician is often not up to date on the basic scientific discoveries. Writing in nontechnical language, John and Joseph Dowling, a neuroscientist and an ophthalmologist, examine vision from both perspectives, providing concise descriptions of basic visual mechanisms and related clinical abnormalities. Thus, an account of the photoreceptors is followed by a consideration of retinitis pigmentosa and macular degeneration; an explanation of the retina's function is followed by details of glaucoma and diabetic retinopathy. The authors

begin with the cornea and lens, which project an image on the light-sensitive elements inside the eye, the photoreceptors, and how that process can be compromised by such disorders as cataracts and corneal disease. They go on to describe, among other things, how the photoreceptors capture light; retinal and visual cortical anatomy and physiology; and higher level visual processing that leads to perception. Cortical disorders such as amblyopia are discussed as well as specific deficits such as the inability to recognize faces, colors, or moving objects. Finally, they survey the evolution of our knowledge of vision, and speculate about future advances"--MIT CogNet.
