
Book Review

Otoacoustic Emissions/Clinical Applications, second edition

Martin S. Robinette and Theodore J. Glatcke, Editors

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Otoacoustic Emissions/Clinical Applications, second edition, edited by Martin S. Robinette and Theodore J. Glatcke, is a landmark text devoted to up-to-date research findings on otoacoustic emissions (OAEs) and their clinical application. Since publication of the first edition in 1997, research and clinical information concerning otoacoustic emissions have burgeoned, justifying a second edition. The editors have done an excellent job of selecting contributors who are leaders in the field, individuals who have made significant contributions to the study of auditory functioning with OAEs and related measurements.

The book is divided into four primary sections. Part I, Perspective, includes two excellent chapters, Exploring Cochlear Status with Otoacoustic Emissions: The Potential for New Clinical Applications, by David T. Kemp, and New Views of Cochlear Function, by Allen F. Ryan. These chapters set the stage for the data presented in the remainder of the text.

Part II, Populations with Normal Hearing Sensitivity, consists of five chapters that address spontaneous OAEs (Kathryn E. Bright), transient evoked OAEs (Glatcke and Robinette), distortion product OAEs (Brenda L. Lonsbury-Martin and Glen K. Martin), and contralateral and binaural suppression of OAEs (George A. Tavartkiladze, Gregory I. Frolenkov, Alesandr V. Kruglov, and Serge V. Artamasov).

Part III, Clinical Populations, includes eight chapters: The Influence of Middle Ear Disease on Otoacoustic Emissions (Robert H. Margolis); Otoacoustic Emissions and Audiometric Outcomes (Francis P. Harris and Rudolf Probst); Distortion Product Otoacoustic Emissions in Relation to Hearing Loss (Michael P. Gorga, Stephen T. Neely, and Patricia A. Dorn); Integrating Otoacoustic Emission and Electrophysiological Measures: Bases of Differential Applications (John D. Durrant and Lionel Collet); Otoacoustic Emissions in Differential Diagnosis (Robinette, Michael J. Cevette, and Teresa M.

Webb); Suppression of Otoacoustic Emissions in Normal Individuals and in Patients with Auditory Disorders (Linda J. Hood); Otoacoustic Emissions in Neonatal Hearing Screening (Beth A. Prieve); and Evoked Otoacoustic Emissions in the Evaluation of Children (Judith E. Widen and Gwendolyn M. O'Grady).

Finally, Part IV offers a single chapter, Calibration Issues, by Jonathan H. Siegel.

In their preface to this edition Robinette and Glatcke note that Kemp, who discovered OAEs in 1977, shared with us in the previous edition his "unique perspective and glimpses of the very first otoacoustic emission recordings." His gift to us in the second edition is a description of the "kernel elements of an ambitious research agenda related to cochlear mechanisms and clinical issues."

From the perspective of an audiologist with a special interest in tinnitology, this text provides extremely limited information about the relationship of OAEs and tinnitus, that topic being addressed only briefly in three chapters. Bright discusses the relation between spontaneous OAEs (SOAEs) and tinnitus, noting that these are not a physiological correlate to the sensation of tinnitus, as had been hoped when they were first measured. Subsequent studies remain equivocal, although the absence of SOAEs in tinnitus subjects is common, and there are reports of tinnitus correlated with SOAEs. Harris and Probst state that the association between tinnitus and OAEs as they relate to cochlear mechanics continues to be of interest but requires further investigation. Finally, Hood discusses the possible role of the efferent system in the generation of tinnitus. Perhaps in the third edition, the editors will include a chapter devoted to OAEs and tinnitus.

In summary, the text is well-written and comprehensive, the illustrations are clear and useful, and overlap of information among the chapters is minimal. This book has practical value for use in clinical practice. The second edition brings the professional up to date with recent advances in the field of OAEs. This reference book belongs in the professional library of both audiologists and otologists.

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