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MEMBRANE RESPONSES; VII.2 NEURAL RESPONSES; VII.3 STRUCTURE-FUNCTION CORRELATION; VII.4 OTOACOUSTIC EMISSIONS; VII.5 PHASE LOCKING; VIII CONCLUSIONS; 2 Absolute Thresholds; I INTRODUCTION; II MEASURES OF ABSOLUTE THRESHOLD; II.1 MINIMUM AUDIBLE PRESSURE (MAP); II.2 MINIMUM AUDIBLE FIELD (MAF)
II.3 COMPARISON OF MAP AND MAFII.4 THE AUDIOGRAM; III DESCRIPTIONS OF THE SEVERITY OF HEARING LOSS; IV CAUSES OF HEARING LOSS DUE TO COCHLEAR DAMAGE; V PERCEPTUAL CONSEQUENCES OF ELEVATED ABSOLUTE THRESHOLDS; 3 Masking, Frequency Selectivity and Basilar Membrane Nonlinearity; I INTRODUCTION; II THE MEASUREMENT OF FREQUENCY SELECTIVITY USING MASKING; II.1 INTRODUCTION; II.2 THE POWER-SPECTRUM MODEL; II.3 ESTIMATING THE SHAPE OF A FILTER; III ESTIMATING FREQUENCY SELECTIVITY FROM MASKING EXPERIMENTS; III.1 PSYCHOPHYSICAL TUNING CURVES; III.2 THE NOTCHED-NOISE METHOD IV CHARACTERISTICS OF THE AUDITORY FILTER IN NORMAL HEARINGIV. 1 VARIATION WITH CENTRE FREQUENCY; IV.2 VARIATION WITH LEVEL; IV.3 SUMMARY; V MASKING PATTERNS AND EXCITATION PATTERNS; V.1 MASKING PATTERNS; V.2 RELATIONSHIP OF THE AUDITORY FILTER TO THE EXCITATION PATTERN; V.3 CHANGES IN EXCITATION PATTERNS WITH LEVEL; V.4 POSSIBLE EFFECTS OF SUPPRESSION; VI NON-SIMULTANEOUS MASKING; VI.1 BASIC PROPERTIES OF NON-SIMULTANEOUS MASKING; VI.2 EVIDENCE FOR SUPPRESSION FROM NON-SIMULTANEOUS MASKING; VI.3 THE ENHANCEMENT OF FREQUENCY SELECTIVITY REVEALED IN NON-SIMULTANEOUS MASKING VI.4 RELATION BETWEEN THE GROWTH OF FORWARD MASKING AND THE BASILAR MEMBRANE INPUT-OUTPUT FUNCTIONVII THE AUDIBILITY OF PARTIALS IN COMPLEX TONES; VIII EFFECTS OF COCHLEAR DAMAGE ON FREQUENCY SELECTIVITY IN SIMULTANEOUS MASKING; VIII.1 COMPLICATING FACTORS; VIII.2 PSYCHOPHYSICAL TUNING CURVES; VIII. 3 AUDITORY FILTER SHAPES MEASURED WITH NOTCHED NOISE; IX THE USE OF MASKING TO DIAGNOSE DEAD REGIONS; IX.1 THE THRESHOLD-EQUALIZING NOISE (TEN) TEST; IX.2 THE TEN(HL) TEST; IX.3 PREVALENCE OF DEAD REGIONS ASSESSED USING THE TEN(HL) TEST X EFFECTS OF COCHLEAR DAMAGE ON FORWARD MASKING AND SUPPRESSION

Sommario/riassunto

Since the first edition was published in 1998, considerable advances have been made in the fields of pitch perception and speech perception. In addition, there have been major changes in the way that hearing aids work, and the features they offer. This book will provide an understanding of the changes in perception that take place when a person has cochlear hearing loss so the reader understands not only what does happen, but why it happens. It interrelates physiological and perceptual data and presents both this and basic concepts in an integrated manner. The goal is to convey an understandin