Record Nr. UNINA9910784657403321 Autore Møller Aage R **Titolo** Hearing [[electronic resource]]: anatomy, physiology, and disorders of the auditory system / / A.R. Møller Amsterdam: Boston: Academic Press, c2006 Pubbl/distr/stampa **ISBN** 1-280-63594-0 9786610635948 0-08-046384-3 Edizione [2nd ed.] Descrizione fisica 1 online resource (326 p.) 617.8 Disciplina Hearing - Physiological aspects Soggetti Hearing disorders - Pathophysiology Ear - Anatomy Lingua di pubblicazione Inglese **Formato** Materiale a stampa Livello bibliografico Monografia Description based upon print version of record. Note generali Includes bibliographical references and index. Nota di bibliografia Nota di contenuto Front cover; Contents; Preface; Acknowledgements; Introduction; SECTION I THE EAR; CHAPTER 1 Anatomy of the Ear; 1. ABSTRACT; 2. INTRODUCTION; 3. OUTER EAR; 4. MIDDLE EAR; 5. COCHLEA; CHAPTER 2 Sound Conduction to the Cochlea: 1. ABSTRACT: 2. INTRODUCTION: 3. HEAD, OUTER EAR AND EAR CANAL; 4. MIDDLE EAR; CHAPTER 3 Physiology of the Cochlea; 1. ABSTRACT; 2. INTRODUCTION; 3. FREQUENCY SELECTIVITY OF THE BASILAR MEMBRANE; 4. SENSORY TRANSDUCTION IN THE COCHLEA; 5. AUTOREGULATION OF BLOOD FLOW TO THE COCHLEA; CHAPTER 4 Sound Evoked Electrical Potentials in the Cochlea: 1. ABSTRACT 2. INTRODUCTION3. ELECTRICAL POTENTIALS IN THE COCHLEA; SECTION I REFERENCES; SECTION II THE AUDITORY NERVOUS SYSTEM; CHAPTER 5 Anatomy of the Auditory Nervous System; 1. ABSTRACT; 2. INTRODUCTION; 3. CLASSICAL ASCENDING AUDITORY PATHWAYS; 4. NON-CLASSICAL ASCENDING AUDITORY PATHWAYS; 5. PARALLEL PROCESSING AND STREAM SEGREGATION: 6. DESCENDING PATHWAYS:

CHAPTER 6 Physiology of the Auditory Nervous System; 1. ABSTRACT; 2. INTRODUCTION; 3. REPRESENTATION OF FREQUENCY IN THE AUDITORY NERVOUS SYSTEM; 4. CODING OF TEMPORAL FEATURES

5. IS TEMPORAL OR PLACE CODE THE BASIS FOR DISCRIMINATION OF FREQUENCY?6. CODING OF COMPLEX SOUNDS: 7. DIRECTIONAL HEARING: 8. EFFERENT SYSTEM: 9. NON-CLASSICAL PATHWAYS: 10. EFFECT OF ANESTHESIA; CHAPTER 7 Evoked Potentials from the Nervous System; 1. ABSTRACT; 2. INTRODUCTION; 3. NEAR-FIELD POTENTIALS FROM THE AUDITORY NERVOUS SYSTEM; 4. FAR-FIELD AUDITORY EVOKED POTENTIALS; CHAPTER 8 Acoustic Middle-ear Reflex; 1. ABSTRACT; 2. INTRODUCTION; 3. NEURAL PATHWAYS OF THE ACOUSTIC MIDDLE- EAR REFLEX: 4. PHYSIOLOGY: 6. CLINICAL USE OF THE ACOUSTIC MIDDLE- EAR REFLEX; SECTION II REFERENCES SECTION III DISORDERS OF THE AUDITORY SYSTEM AND THEIR PATHOPHYSIOLOGYCHAPTER 9 Hearing Impairment; 1. ABSTRACT; 2. INTRODUCTION; 3. PATHOLOGIES OF THE SOUND CONDUCTING APPARATUS; 4. PATHOLOGIES OF THE COCHLEA; 5. IMPLICATIONS OF HEARING LOSS ON CENTRAL AUDITORY PROCESSING; 6. PATHOLOGIES FROM DAMAGE TO THE AUDITORY SYSTEM: 7. PATHOLOGIES OF THE CENTRAL AUDITORY NERVOUS SYSTEM; 8. ROLE OF NEURAL PLASTICITY IN DISORDERS OF THE CENTRAL AUDITORY NERVOUS SYSTEM: CHAPTER 10 Hyperactive Disorders of the Auditory System; 1. ABSTRACT; 2. INTRODUCTION: 3. SUBJECTIVE TINNITUS 4. ABNORMAL PERCEPTION OF SOUNDS5. TREATMENT OF SUBJECTIVE TINNITUS; 6. TREATMENT OF HYPERACUSIS; CHAPTER 11 Cochlear and Brainstem Implants; 1. INTRODUCTION; 2. COCHLEAR IMPLANTS; 3. COCHLEAR NUCLEUS IMPLANTS; 4. ROLE OF NEURAL PLASTICITY; SECTION III REFERENCES: APPENDIX A Definitions in Anatomy; APPENDIX B Hearing Conservation Programs; 1. INTRODUCTION; 2. PURPOSE AND DESIGN OF HEARING CONSERVATION PROGRAMS; 3. ESTABLISHMENT OF NOISE STANDARDS: 4. MEASUREMENT OF NOISE: 5. PERSONAL PROTECTION; 6. NON-OCCUPATIONAL NOISE EXPOSURE; 7. EFFECT OF NOISE ON BODILY FUNCTIONS; APPENDICES REFERENCES List of Abbreviations

Sommario/riassunto

Hearing: Anatomy, Physiology and Disorders of the Auditory System provides detailed information about the anatomy and physiology of the entire auditory system and it describes important aspects of disorders of the middle ear, the cochlea, and the nervous system in a comprehensive manner. Most other textbooks on Hearing are focused on either the periphery or the central nervous system and rarely integrate anatomy and physiology with clinical issues. In the past years, it has become apparent that pathologies of the peripheral parts of the auditory system affect the function of the nervous