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Nota di contenuto	Front Cover; Waking and The Reticular Activating System in Health and Disease; Copyright; Contents; Acknowledgments; Dedication; Preface; Chapter 1: Governing Principles of Brain Activity; Why Waking?; The Gorilla in the Room; Cell Assemblies; Coherence and Frequency; Content and Context; Cortical Columns; Thalamocortical Resonance; Clinical Implications: Thalamocortical Dysrhythmia; References; Chapter 2: The EEG and the Discovery of the RAS; The EEG and the RAS; Limitations of the EEG; Early Theories of Sleep; The Pedunculopontine Nucleus; Dorsal and Ventral Cholinergic Pathways Clinical Implications: "Sleep Problems" vs. "Waking Problems" References; Chapter 3: Other Regions Modulating Waking; A Matter of Time; The Lateral Hypothalamus and Hypocretin; The Basal Forebrain and Acetylcholine; The TMN and Histamine; Clinical Implications: Coma; References; Chapter 4: Wiring Diagram of the RAS; Wiring Diagram; Locus Coeruleus; Dorsal Raphe Nucleus; Pedunculopontine Nucleus; Intrinsic Properties of PPN Neurons; Inputs to PPN Neurons; Electrical Coupling; Cell Clusters; Clinical Implications; References; Chapter 5: Development and the RAS; Development of Wake-Sleep States Evolutionary ConsiderationsDevelopmental Decrease in REM Sleep; REM Sleep Inhibition; Changes in Intrinsic Properties; Changes in Transmitter Responses; Puberty and Wake-Sleep; Gonadal Steroids;

Clinical Implications; References; Chapter 6: Ascending Projections of the RAS; The Ascending Reticular Activating System; Intralaminar Thalamus; Cortex; Clinical Implications; References; Chapter 7: Descending Projections of the RAS; Descending Targets; The Subcoeruleus Nucleus; The PPN and the MLR; Posture and Locomotion; Push-Pull on Reticulospinal Cells; The Startle Response; Spinal Cord Clinical ImplicationsReferences; Chapter 8: The 10 Hz Fulcrum; Alpha Frequency (~ 10 Hz) Activity; Alpha Rhythm; The mu Rhythm; Physiological Tremor; The 10 Hz Fulcrum; Natural Frequency; Clinical Implications; References; Chapter 9: Gamma Band Activity; What does the EEG measure?; Binding and Perception; Cortical Mechanisms of Gamma Band Activity; Coordination of Gamma Band Activity; RAS Mechanisms of Gamma Band Activity; Gamma Maintenance; Gamma in Waking vs. REM Sleep; Clinical Implications; References; Chapter 10: Preconscious Awareness; The Role of Gamma Band Activity in the RAS Levels of AwarenessWaking and Preconscious Awareness; Volition and Free Will; Mechanisms for Preconscious Awareness; Everyday Preconscious Awareness; The PPN and Behavior; Clinical Implications; References; Chapter 11: Psychiatric Disorders and the RAS; Arousal, Waking, and Psychiatric Disorders; Schizophrenia; Bipolar Disorder; Major Depression; Posttraumatic Stress Disorder; Attention Deficit Hyperactivity Disorder; Autism; Clinical Implications; References; Chapter 12: Neurological Disorders and the RAS; Arousal, Waking, and Neurological Disorders; Parkinson's Disease; Alzheimer's Disease Huntington's Disease

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