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Autore	Nielsen Jens Bo
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Sommario/riassunto

Knowledge of how the brain works has increased dramatically within the past 15-20 years, introducing a powerful framework for developing general guidelines for practical neurorehabilitation. This textbook aims to give an overview of the current knowledge of neurobiology as a basis for deciding how best to help patients recover function after brain and spinal cord injuries. This book provides an overview of basic neurobiology and its practical application in neurorehabilitation. It explores neuroplasticity, beginning with its origins in neurodevelopmental plasticity and progressing to how scientific knowledge and technological advancements can enhance neuroplasticity and improve neurorehabilitation. Furthermore, a special focus is directed to various neurological disorders to illustrate condition-specific challenges and opportunities. The book benefits from the diverse perspectives of its contributors, who represent various fields. This diversity provides readers with a comprehensive understanding of neuroplasticity-based neurorehabilitation from a range of experts. This book is mainly intended for pregraduate physiotherapy, occupational therapy and neurorehabilitation students, but it can be of interest also to clinicians (doctors, therapists, nurses, psychologists) working in the field of neurorehabilitation, as part of postgraduate courses and studies.