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rTMS / Chip Epstein, John C. Rothwell -- Rehabilitation / David Gow, Chris Fraser, Shaheen Hamdy -- New questions / Mark Hallett, Eric M. Wassermann, Leonardo G. Cohen.

Sommario/riassunto

It is now well known that the functional organisation of the cerebral cortex is plastic and that changes in organisation occur throughout life in response to normal and abnormal experience. Transcranial magnetic stimulation (TMS) is a non-invasive and painless technique that has opened up completely new and fascinating avenues to study neural plasticity. First, TMS can be used to detect changes in excitability or connectivity of the stimulated cortex which may have occurred through processes such as learning or recovery from a lesion. Second, repeated TMS by itself can induce changes in excitability and connectivity of the stimulated cortex which may be used therapeutically in neurological and psychiatric disease. Third, TMS can induce short-lasting 'virtual lesions', which may directly test the functional relevance of brain plasticity. Current knowledge of all these exciting possibilities is brought together in this book, written by the world's leading experts in the field. The book is an essential compendium on plasticity of the human brain for clinical neurophysiologists, neurologists, psychiatrists and neuroscientists.