



Proceedings of the Medtronic Forum for Neuroscience and Neuro-Technology

AJNR Am J Neuroradiol 2007, 28 (9) 1833

doi: <https://doi.org/10.3174/ajnr.A0677>

<http://www.ajnr.org/content/28/9/1833.1>

This information is current as
of August 20, 2025.

neoplastic process, along with extensive bibliographic annotations, should be of great interest and value to students of neuro-oncology.

DOI 10.3174/ajnr.A0679

BOOK REVIEW

Proceedings of the Medtronic Forum for Neuroscience and Neuro-Technology

B. van Hilten and B. Nuttin, eds. New York: Springer; 2007, 85 pages, 13 illustrations, \$24.95.

The authors of the *Proceedings of the Medtronic Forum for Neuroscience and Neuro-Technology* were undoubtedly aware that desks across the medical and research world are cluttered with journals and books containing important knowledge that will never be read due to lack of time. Their solution was to write a concise and informative review of the science and future therapeutic developments of neurostimulation. It is unusual to find such an important and complex topic summarized so thoroughly in a short monograph.

Interventional neuroscience may become a revolution in the treatment of disorders such as chronic pain, dystonia, cluster headaches, epilepsy, and psychiatric disease that have been recalcitrant to traditional therapies. Medical therapy, when successful, affects many parts of the nervous system, often yielding undesirable effects. When focal areas have been identified as targets for ablative surgery, treatment is often effective, but adverse effects may occur and are permanent.

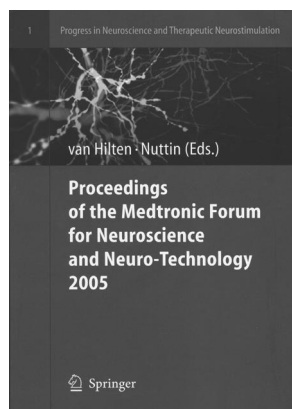
Neurostimulation treats focal areas effectively and is reversible by removing the stimulator or simply switching it off. These features also allow more rigorous study of their therapeutic potential and the placebo effect.

The book is divided into 3 parts. Part 1 covers developments in complex regional pain syndrome, neuropathic pain, and dystonia. The chap-

ters thoroughly and concisely review the diagnosis, treatment, and pathophysiology of these disorders and begin making a case for medical devices as potential treatments. Clinicians who are not experts in the field will find these chapters useful for quick guidance in diagnosis and available therapeutic options. Part 2 covers some of the basic research and future directions of interventional neuroscience. Theoretical mechanisms of how stimulation may affect neural networks are fascinating and stimulate readers to apply this technology to their own clinical problems. The authors illustrate how these techniques may treat conditions anywhere in the body through connections with the nervous system. Part 3 reviews the results of neurostimulation that have already been applied to clinical problems, and impressive results in the treatment of chronic pain, epilepsy, obsessive-compulsive behavior, and other neuropsychiatric disorders are discussed.

The greatest value in this monograph is the reader's ability to get an understanding of this new and exciting field in a short sitting, as each chapter lasts an average of 3 pages. It was not written to be an exhausting review, but the references will direct readers to more complete discussions. The authors are considered experts in the field, and their references are complete and timely. I recommend this book to clinicians in neurology, neurosurgery, and psychiatry, as well as to basic neuroscientists whose interests extend to clinical applications of functional neuroscience. Diagnostic imaging plays a small role in the diagnosis and, subsequently, in the discussion of these disorders. However, neuroradiologists interested in the forefront of interventional neuroradiology will find these topics important as a glimpse into future practice. Those interested in using these potential techniques to better understand functional neuroanatomy may find this book a good step in quickly reviewing the field.

DOI 10.3174/ajnr.A0677



BOOKS RECEIVED

Inflammation in the Pathogenesis of Chronic Diseases: The COX-2 Controversy, Series: Subcellular Biochemistry, Vol. 42. R.E. Harris, ed. New York: Springer; 2007, 323 pages, \$199.00.

Nursing Care of the Pediatric Neurosurgery Patient. C.C. Cartwright and D.C. Wallace, eds. New York: Springer; 2007, 284 pages, 119 illustrations, \$99.00.

The Clinical Neurophysiology Primer. A.S. Blum and S.B. Rutkove, eds. Totowa, NJ: Humana Press; 2007, 500 pages, \$99.50.