

Fugl Meyer

*Stroke and spinal cord injury often result in paralysis with serious negative consequences to the independence and quality of life of those who sustain them. For these individuals, rehabilitation provides the means to regain lost function. Rehabilitation following neurological injuries has undergone revolutionary changes, enriched by neuroplasticity. Neuroplastic-based interventions enhance the efficacy and continue to guide the development of new rehabilitation strategies. This book presents three important technology-based rehabilitation interventions that follow the concepts of neuroplasticity. The book also discusses clinical results related to their efficacy. These interventions are: functional electrical stimulation therapy, which produces coordinated muscle contractions allowing people with paralysis to perform functional movements with rich sensory feedback; robot-assisted therapy, which uses robots to assist, resist, and guide movements with increased intensity while also reducing the physical burden on therapists; and brain-computer interfaces, which make it possible to verify the presence of motor-related brain activity during rehabilitation. Further, the book presents the combined use of these three technologies to illustrate some of the emerging approaches to the neurorehabilitation of voluntary movement. The authors share their practical experiences obtained during the development and clinical testing of functional electrical stimulation therapy controlled by a brain-computer interface as an intervention to restore reaching and grasping. Highly regarded as a course text and practitioner resource, this book presents concise intervention guidelines for the most frequently encountered sexual dysfunctions in women and men. Following a consistent format, chapters on each clinical problem cover its description, clinical presentation, prevalence, etiology, and biological and psychosocial factors. Illustrative case examples of diverse individuals and couples are included. The authors provide a state-of-the-art framework for conducting comprehensive assessments, weaving multiple data sources into a coherent case formulation, and planning effective treatment that integrates medical and psychosocial strategies. New to this Edition ** Incorporates major advances in both sexual medicine and psychotherapy. * Extensively rewritten, with all-new case material throughout. *New chapter organization aligned with DSM-5. *Expanded coverage of biopsychosocial assessment. *Discusses pseudoscientific and sham treatments.

Respiratory Neurobiology: Physiology and Clinical Disorders, Part Two, Volume 189 is one of two volumes on the neurology of breathing. This volume focuses on pathologies attributable to abnormalities of the neural control of breathing, breathing problems that may occur in neurological diseases, and the neurological complications of respiratory diseases, while volume one focuses on the neurophysiology of breathing. Explores the assessment and treatment of neural disorders of breathing. Identifies neural complications of respiratory diseases. Includes SIDS, stroke, Parkinson’s, dementia, epilepsy, muscular dystrophy, and more.

Proven Classic Updated to Reflect the DSM-5 The accessible format, overview chapters on broader issues—such as interviewing—that affect all diagnoses, and case study approach provide the ideal support for students to examine and understand how diagnoses are reached and applied. Updated to reflect the latest neurobiological advancements in psychopathology, this edition follows the same proven chapter structure for the disorder chapters of previous editions to facilitate readers’ understanding and learning. Updates include topics such as: The new Schizophrenic Spectrum designation and other psychotic disorders The revised approach to eating disorders Two new chapters reflect the unsettled nature of the DSM-5 for academics and clinicians alike: Chapter 21: Conditions for Further Study and Chapter 22: Alternative DSM-5 Model for Personality Disorders. Encompassing the most current research in the field. *Adult Psychopathology and Diagnosis, Seventh Edition provides a thorough introduction to our current conceptualization of psychopathology and its application in clinical practice, including dimensional and categorical classifications.*

Neurorehabilitation for the Physical Therapist Assistant

Clinical Techniques for Navigating Sexual and Relationship Control Struggles

Advanced Technologies in Rehabilitation

Handbook of Clinical Gender Medicine

Volume 1
Brain Repair After Stroke
Arm Rehabilitation Measurement ARM ; Manual for Performance and Scoring of the Fugl-Meyer Test (arm Section), Action Research Arm Test and the Box-and-Block Test ESTIMATING FUGL-MEYER UPPER EXTREMITY ASSESSMENT SCORE FROM KINEMATIC MOVEMENT DATA OBTAINED DURING STROKE REHABILITATION IN VIRTUAL REALITY

The goal of this book is to bring together ideas from several different disciplines in order to examine the focus and aims that drive rehabilitation intervention and technology development. Specifically, the chapters in this book address the questions of what research is currently taking place to further develop rehabilitation, applied technology and how we have been able to modify and measure responses in both healthy and clinical populations using these technologies.

This Research Topic is devoted to arm and hand movement in health as well as in several disease conditions. It is a collection of several original research papers and reviews, clinical case studies, hypothesis and theory articles, opinions, commentaries, and methods papers that cover some important aspects of the topic from distinct scientific perspectives. We invite the readers to appreciate the range in methodologies and experimental designs that together have led to widen our understanding of this especially broad field of research.

The neuro rehab text that mirrors how you learn and how you practice! Take an evidence-based approach to the neurorehabilitation of adult and pediatric patients across the lifespan that reflects the APTA’s patient management model and the WHO’s International Classification of Function (ICF). You’ll study examination and interventions from the body structure/function impairments and functional activity limitations commonly encountered in patients with neurologic disorders. Then, understanding the disablement process, you’ll be able to organize the clinical data that leads to therapeutic interventions for specific impairments that can then be applied as appropriate anytime that impairment is detected, regardless of the medical diagnosis.

Empowering Cognitive, Physical, Social and Communicative Skills Through Virtual Reality, Robots, Wearable Systems and Brain-computer Interfaces

Principles and Practice of Sex Therapy, Fourth Edition

Intelligent Robotics and Applications

Proceedings and Debates of the ... Congress

Oxford Textbook of Neurorehabilitation

The first, definitive text on female sexual dysfunction, this major new book summarizes the current body of knowledge in the field, traces the history of developments in the area, and identifies work still needed in the future. Reflecting a multidisciplinary approach to the subject, the book details the methods and materials for ensuring the appropriate management of women with sexual health problems, and concentrates on the presentation of evidence-based data concerning the physiology, pathophysiology, diagnosis and treatment of sexual function and dysfunction in women. The inclusion of ‘difficult cases’ also enhances the use of text as a practical guide to all disciplines concerned with the field of female sexual dysfunction. This important work will become a key resource for basic science researchers, endocrinologists, gynecologists, psychologists, urologists, health care clinicians, and anyone else interested in women’s sexual health. All proceeds are donated to the International Society for the Study of Women’s Sexual Health.

Covering neuroscience and rehabilitation strategies, an essential handbook and reference for multidisciplinary stroke rehabilitation teams.

In two freestanding volumes, Textbook of Neural Repair and Rehabilitation provides comprehensive coverage of the science and practice of neurological rehabilitation. Revised throughout, bringing the book fully up to date, this volume, Medical Neurorehabilitation, can stand alone as a clinical handbook for neurorehabilitation. It covers the practical applications of the basic science principles presented in Volume 1, provides authoritative guidelines on the management of disabling symptoms, and describes comprehensive rehabilitation approaches for the major categories of disabling neurological disorders. New chapters have been added covering genetics in neurorehabilitation, the rehabilitation team and the economics of neurological rehabilitation, and brain stimulation, along with numerous others. Emphasizing the integration of basic and clinical knowledge, this book and its companion are edited and written by leading international authorities. Together they are an essential resource for neuroscientists and provide a foundation of the work of clinical neurorehabilitation professionals.

In the first book of its kind, Dr. Stephen J. Betchen teaches established and training marriage and family therapists to recognize the complexity and contradictions of control struggles in couples and, uniquely, how to clinically treat these issues to create a harmonious, long relationship. Rehabilitation, conflict theory, psychodynamic systems work, and the basic principles of sex therapy, the book aims to help professionals recognize and assess control struggles in couples, detect and examine their origin, and offer techniques to help break the struggle and alleviate its associated symptoms. Chapters begin by defining control and where the origin of control comes from before exploring how these origins and other sociocultural factors impact how we choose our partners. The book’s second half examines how clinicians should assess and treat couples with both sexual and nonsexual symptoms, how to avoid being caught in the control crossfire as a therapist, and how to terminate sessions and prevent relapses. Filled with case studies and useful interventions throughout, this book aims to help clinicians working with all couples across cultures and sexual orientations find a common ground. It is indispensable for training and graduate clinicians that work with couples, especially couples with sexual disorders.

Theories and Translations

Motor Neuroscience Editor’s Pick 2021

Health and Medicine

A Guide for Assessment and Treatment

Electromyography (EMG) Techniques for the Assessment and Rehabilitation of Motor Impairment Following Stroke

Proceedings of the International Conference on Information Engineering and Applications (IEA) 2012

This revised, updated second edition provides an accessible, practical overview of major areas of technical development and clinical application in the field of neurorehabilitation movement therapy. The initial section provides a rationale for technology application in movement therapy by summarizing recent findings in neuroplasticity and motor learning. The following section then explains the state of the art in human-machine interaction requirements for clinical rehabilitation practice. Subsequent sections describe the ongoing revolution in robotic therapy for upper extremity movement and for walking, and then describe other emerging technologies including electrical stimulation, virtual reality, wearable sensors, and brain-computer interfaces. The promises and limitations of these technologies in neurorehabilitation are discussed. Throughout the book the chapters provide detailed practical information on state-of-the-art clinical applications of these devices following stroke, spinal cord injury, and other neurologic disorders. The text is illustrated throughout with photographs and schematic diagrams which serve to clarify the information for the reader. Neurorehabilitation Technology, Second Edition is a valuable resource for neurologists, biomedical engineers, roboticists, rehabilitation specialists, physiotherapists, occupational therapists and those training in these fields.

This issue of Physical Medicine & Rehabilitation Clinics will focus on stroke rehabilitation and will include articles such as: Mechanisms of stroke recovery, Insights from basic sciences, Stroke recovery and predictors of rehabilitation outcomes, Upper limb motor impairments, Post-stroke spasticity, Communication disorders and dysphagia, Neuropharmacology of Recovery, Robotic therapy, and many more.

A new vision to understanding medicine Gender medicine is an important new field in health and disease. It is derived from top-quality research and encompasses the biological and social determinants that underlie the susceptibility to disease and its consequences. In the future, consideration of the role of gender will undoubtedly become an integral feature of all research and clinical care. Defining the role of gender in medicine requires a broad perspective on biology and diverse skills in biomedical and social sciences. When these scientific disciplines come together, a revolution in medical care is in the making. Covering two different areas of medicine, the practical and useful Handbook of Clinical Gender Medicine provides up-to-date information on the role of gender in the clinical presentation, diagnosis, and management of a wide range of common diseases. The contributing authors of this handbook are all experts who, in well-referenced chapters, cogently and concisely explain how incorporation of gender issues into research can affect the medical understanding and treatment of heart disease, osteoporosis, arthritis, pain, violence, and malaria among other conditions. This intriguing and unique medical textbook provides readers with a valuable new perspective to understand biology and incorporate gender issues into the different branches of medicine.

Increasing evidence identifies the possibility of restoring function to the damaged brain via exogenous therapies. One major target for these advances is stroke, where most patients can be left with significant disability. Treatments have the potential to improve the victim’s quality of life significantly and reduce the time and expense of rehabilitation. Brain Repair After Stroke reviews the biology of spontaneous brain repair after stroke in animal models and in humans. Detailed chapters cover the many forms of therapy being explored to promote brain repair and consider clinical trial issues in this context. This book provides a summary of the neurobiology of innate and treatment-induced repair mechanisms after hypoxia and reviews the state of the art for human therapeutics in relation to promoting behavioral recovery after stroke. Essential reading for stroke physicians, neurologists, rehabilitation physicians and neuropsychologists.

Textbook of Neural Repair and Rehabilitation

A Compendium of Tests, Scales and Questionnaires

Study, Diagnosis and Treatment

Neurorehabilitation Editor’s Pick 2021

Autonomous assessment of Patient Progress. A software suite allowing objective and qualitative assessment of arm movements of a person with brain or physical injury

Stroke Rehabilitation, An Issue of Physical Medicine and Rehabilitation Clinics of North America 26-4.

Information engineering and applications is the field of study concerned with constructing information computing, intelligent systems, mathematical models, numerical solution techniques, and using computers and other electronic devices to analyze and solve natural scientific, social scientific and engineering problems. Information engineering is an important underpinning for techniques used in information and computational science and there are many unresolved problems worth studying. The Proceedings of the 2nd International Conference on Information Engineering and Applications (IEA 2012), which was held in Chongqing, China, from October 26-28, 2012, discusses the most innovative research and developments including technical challenges and social, legal, political, and economic issues. A forum for engineers and scientists in academia, industry, and government, the Proceedings of the 2nd International Conference on Information Engineering and Applications presents ideas, results, works in progress, and experience in all aspects of information engineering and applications.

The definitive work on occupational therapy for physical dysfunction returns in its Sixth Edition, with reputable co-editors and clinical, academic, and consumer contributors. This text provides a current and well-rounded view of the field- from theoretical rationale to evaluation, treatment, and follow-up. Through the Occupational Functioning Model (OFM), the Sixth Edition continues to emphasize the conceptual foundation and scientific basis for practice, including evidence to support the selection of appropriate assessments and interventions. NEW TO THIS EDITION: Student DVD with video clips demonstrating range of motion, manual muscle testing, construction of hand splints, and transferring patients Evidence Tables summarize the evidence behind key topics and cover Intervention, Participants, Dosage, Type of Best Evidence, Level of Evidence, Benefit, Statistical Probability, and Reference Assessment Tables summarize key assessment tools and cover Instrument and Reference, Description, Time to Administer, Validity, Reliability, Sensitivity, and Strengths and Weaknesses

Volume 2 of the Textbook of Neural Repair and Rehabilitation stands alone as a clinical handbook for neurorehabilitation.

This cutting-edge two-volume set with contributions by distinguished and internationally recognized scholars provides a comprehensive picture of contemporary issues in the field of women’s sexuality, emphasizing women’s diversity and international perspectives. * Vignettes and real-life stories to illustrate concerns, questions, findings, research, and concepts * In-depth coverage of a wide spectrum of sexuality topics among women, including sexual desire and satisfaction; sexuality concerns in diverse countries; pornography; lesbian, bisexual, and transgender women; trauma, rape, and intimate partner violence; and mental health and therapy * Contributions from 63 distinguished scholars who are experts in their fields * Extensive bibliography with each chapter

Recovery After Stroke

Neurorehabilitation of Voluntary Movement after Stroke and Spinal Cord Injury

Robotics, Autonomous Systems and AI for Nonurgent/Nonemergent Healthcare Delivery During and After the COVID-19 Pandemic

Couples in Conflict

11th International Conference, ICIRA 2018, Newcastle, NSW, Australia, August 9–11, 2018, Proceedings, Part I

Women’s Sexual Function and Dysfunction

Hasty’s Thesis Form 2012 in the subject Computer Science - Miscellaneous, grade: 1, (Middlesex University in London), language: English, abstract: This thesis presents an approach of developing FUGL-MEYER test using Microsoft Kinect. This method of developing this application for FUGL-MEYER test will change the measurement format from subjective to objective. This approach can solve the intertester reliability problem of the FUGL-MEYER test. Software is developed to calculate the different joint angles so that it can give measurements in objective format and data gets stored in text file in respective test folders. Testing has been done with human skeleton to check the distance from Kinect which gives more accurate results with minimum deviation. This thesis also gives some future development ideas. The main aim of this study is to apply this approach in development of FUGL-MEYER test to enhance the current measurement strategy of the test.

The goal of this book is to bring together ideas from several different disciplines in order to examine the focus and aims that drive rehabilitation intervention and technology development. Specifically, the chapters in this book address the questions of what research is currently taking place to further develop rehabilitation, applied technology and how we have been able to modify and measure responses in both healthy and clinical populations using these technologies. The following chapters are dedicated toward addressing these issues: 1) Does Training with Technology Add to Functional Gains?; 2) Are there Rules that Govern Recovery of Function?; 3) Using the Body’s Own Signals to Augment Therapeutic Gains; 4) Technology Incorporates Cognition and Action; 5) Technology Enhances the Impact of Rehabilitation Programs; 6) Summary.

The two volume set LNAI 10984 and LNAI 10985 constitutes the refereed proceedings of the 11th International Conference on Intelligent Robotics and Applications, ICIRA 2018, held in Newcastle, NSW, Australia, in August 2018. The 81 papers presented in the two volumes were carefully reviewed and selected from 129 submissions. The papers in the first volume of the set are organized in topical sections on multi-agent systems and distributed control; human-machine interaction; rehabilitation robotics; sensors and actuators; and industrial robot and robot manufacturing. The papers in the second volume of the set are organized in topical sections on robot grasping and control; mobile robotics and path planning; robotic vision, recognition and reconstruction; and robot intelligence and learning.

Neurorehabilitation is an expanding field with an increasing clinical impact because of an ageing population. During the last 20 years neurorehabilitation has developed from a discipline with little scientific background, separated from other medical centers, to a medical entity largely based on the principles of ‘evidence based medicine’ with strong ties to basic research and clinical neurology. Today neurorehabilitation is still a ‘work in progress’ and treatment standards are not yet established for all aspects of neurorehabilitation. There are very few books that address contemporary neurorehabilitation from this perspective. This volume moves the reader from theory to practice. It provides the reader with an understanding of the theoretical underpinnings of neurorehabilitation, as well as a clear idea about how (and why) to approach treatment decisions in individual patients. These clinical recommendations are based on a mix of established evidence and clinical experience that the authors bring to bear on their topics.

Textbook of Neural Repair and Rehabilitation: Volume 2, Medical Neurorehabilitation

LIFESPAN NEUROREHABILITATION

ESTIMATING FUGL-MEYER UPPER EXTREMITY ASSESSMENT SCORE FROM KINEMATIC MOVEMENT DATA OBTAINED DURING STROKE REHABILITATION IN VIRTUAL REALITY

Arm Rehabilitation Measurement

Interrater Reliability of the Fugl-Meyer Evaluation of Physical Performance in Stroke Patients ...

Willard and Spackman’s Occupational Therapy

Neurorehabilitation for the Physical Therapist Assistant provides a complete overview of the foundations of various neurological medical conditions and presents a wide array of clinical problems that a physical therapist assistant may encounter in the educational or clinical setting. Darcy Umphred and Connie Carlson, along with 11 contributors, offer a thorough explanation of the PT to PTA delegation process that is both unique and comprehensive. Throughout the pages of Neurorehabilitation for the Physical Therapist Assistant the PTA is provided with the necessary tools to effectively interact with and treat patients who suffer from neurological medical diagnoses. This text also covers a wide variety of neurological clinical problems that a PTA may encounter. Neurorehabilitation for the Physical Therapist Assistant presents specific examples of tests and measures and interventions that a PTA may use when treating patients with CNS damage. Multiple chapters offer one or more case studies that will aid students and practicing PTAs in the analysis of PTA roles and the delegation of specific tasks, as well as why a PT may not choose to delegate a task. Also included is a brief discussion of selected pathologies and their progressions or complications, which will give students and practitioners a better understanding of the conditions and how to manage them. The text also includes a brief discussion of the different types of movement dysfunctions and intervention selection. -A discussion of disablement and enablement models. The volumes of knowledge presented in this unique and detailed text ensures Neurorehabilitation for the Physical Therapist Assistant will accompany the PTA throughout their education and into their career.

This Compendium is a comprehensive reference manual containing an extensive selection of instruments developed to measure signs and symptoms commonly encountered in neurological conditions, both progressive and non-progressive. It provides a repository of established instruments, as well as newly-developed scales, and covers all aspects of the functional consequences of acquired brain impairment. In particular, the text provides a detailed review of approximately 150 specialist instruments for the assessment of people with neurological conditions such as dementia, multiple sclerosis, stroke and traumatic brain injury. Part A presents scales examining body functions, including consciousness and orientation; general and specific cognitive functions; regulation of behaviour, thought, and emotion; and motor-sensory functions. Part B reviews scales of daily living activities and community participation. Part C focuses on contextual factors, specifically environmental issues, and Part D contains multidimensional and quality of life instruments. Each instrument is described in a stand-alone report using a uniform format. A brief history of the instrument’s development is provided, along with a description of item content and administration/scoring procedures. Psychometric properties are reviewed and a critical commentary is provided. Key references are cited and in most cases the actual scale is included, giving the reader easy access to the instrument. The structure of the book directly maps onto the taxonomy of the influential International Classification of Functioning, Disability and Health (World Health Organization, 2001), enabling linkage of clinical concepts across health conditions. The Compendium will be a valuable reference for clinicians, researchers, educators, and graduate students, and a practical resource for those involved in the assessment of people with brain impairment. The book is accompanied by a password protected website. For a one-off payment, purchasers of the book can gain online access to the majority of the tests, scales and questionnaires featured in the book as downloadable PDFs. See inside the book for more details.

This book offers a reliable source of information on the latest advances and current trends in the medical and clinical sciences. The focus is on certain fields that are of consistently high practical interest due to widespread disease morbidity, and on pathomechanisms that are not yet fully understood and their treatment. The topics covered include, but are not limited to, the search for novel biomarkers of colorectal cancer, mainly on a molecular level after brain injuries, and impairment in brain-controlled muscle mechanisms after stroke. In addition, problematic issues in pulmonary medicine are discussed at length. These issues, notably, concern human studies that have set the standards for allergy, sensory irritation, and sensitization research, as well as studies on the management and treatment of chronic obstructive pulmonary disease and obstructive sleep apnea. Lastly, the book addresses various aspects of commonplace viral respiratory infections, such as vulnerability and transmission in both pediatric and adult populations, live vaccination coverage, and post-infectious respiratory complications. The book’s goal is to promote the restoration and maintenance of good health, disease prophylaxis, and improved patient management by integrating research into clinical work and findings on improving care. It offers a valuable asset for clinical specialists, researchers, and everyone engaged in healthcare.

Designed to help students become effective, reflective practitioners, this fully updated edition of the most widely used occupational therapy text for the course continues to emphasize the “whys” as well as the “how-tos” of holistic assessment and treatment. Now in striking full color and co-edited by renowned educators and authors Diane Powers Drette and Sharon Gutman, Occupational Therapy for Physical Dysfunction, Eighth Edition features expert coverage of the latest assessment techniques and most recent trends in clinical practice. In addition, the book now explicitly integrates “Frames of Reference” to help students connect theories to practice and features a new six-part organization, thirteen all-new chapters, new pedagogy, and more.

Sexual Dysfunction, Third Edition

Neurorehabilitation Technology

The Practitioner’s Guide to Measuring Outcomes after Acquired Brain Impairment

The Essential Handbook of Women’s Sexuality

Respiratory Neurobiology

Journal of Rehabilitation Research and Development

The most up-to-date coverage on adult psychopathology Now in its sixth edition, *Adult Psychopathology and Diagnosis* offers comprehensive coverage of the major psychological disorders and presents a balanced integration of empirical data and diagnostic criteria to demonstrate the basis for individual diagnoses. The accessible format, overview chapters on broader issues—such as interviewing—that affect all diagnoses, and case study approach provide the ideal support for students to examine and understand how diagnoses are reached and applied. Updated to reflect the latest advancements in psychopathology, this edition offers contributions by internationally renowned leaders in the field, thirty percent of whom are new to this edition. Coverage is featured of essential topics, including: Neurobiological foundations of disorders The problem of dual diagnoses Expanded coverage of anxiety and gender issues Eating disorders Overview chapter on interviewing Mental disorders as discrete clinical conditions with dimensional characteristics Encompassing the most current research in the field, *Adult Psychopathology and Diagnosis, Sixth Edition* provides a thorough introduction to the principles of the DSM-IV-TR classification system and its application in clinical practice, including dimensional and categorical classifications. *Background and Aims:* Assessing impairment and forming predictions about recovery are big challenges in neurorehabilitation. In clinical studies, effectiveness is usually assessed with established clinical scales, like the Fugl-Meyer Upper Limb Assessment (FMA). Although the FMA shows great specificity and validity, it is time-consuming, subjective and vulnerable to ceiling effects. Virtual reality (VR)-based setups equipped with motion capture systems could overcome these limitations by automating assessment, requiring that FMA scores can be reliably predicted from kinematic data. *Methods:* To test this hypothesis, we use movement quality parameters that were extracted from kinematic data recorded during rehabilitation sessions performed with the Rehabilitation Gaming System (RGS), a VR rehabilitation tool, that uses the Microsoft Kinect for motion capture. The protocol considered here asks patients to intercept spheres on a computer screen using their upper limbs. In this preliminary analysis, we performed a multivariate regression using clinical data from 98 stroke patients who completed 191 rehabilitation sessions with RGS. *Results:* We show that the best multivariate regression model for predicting FMA (intercept: 0.57 prediction range: 18.9 to 2013 55.9, standard deviation: 11.96, R2: 0.47) includes the predictors finger flexion (u03b2u00b5: 0.41) and distance covered (u03b2u00b5: 0.17). However, the extent to which patients react fast and appropriate to training-related events, or reaction strength, is the strongest predictor of FMA scores in all models tested (u03b2u00b5: 0.19 to 0.52). *Conclusions:* These results highlight the predictive power of kinematic data collected during unsupervised motor training and provide insight into new factors underlying recovery.

This widely adopted text and clinical reference provides a comprehensive guide to assessment and treatment of all of the major female and male sexual dysfunctions. Leading authorities demonstrate effective ways to integrate psychological, interpersonal, and medical interventions. Every chapter includes detailed clinical examples

Illustrating the process of therapy and the factors that influence treatment outcomes. Winner— Society for Sex Therapy and Research (SSTAR) Health Professional Book Award

This single volume brings together both theoretical developments in the field of motor control and their translation into such fields as movement disorders, motor rehabilitation, robotics, prosthetics, brain-machine interface, and skill learning. Motor control has established itself as an area of scientific research characterized by a multi-disciplinary approach. Its goal is to promote cooperation and mutual understanding among researchers addressing different aspects of the complex phenomenon of motor coordination. Topics covered include recent theoretical advances from various fields, the neurophysiology of complex natural movements, the equilibrium-point hypothesis, motor learning of skilled behaviors, the effects of age, brain injury, or systemic disorders such as Parkinson’s Disease, and brain-computer interfaces. The chapter ‘Encoding Temporal Features of Skilled Movements—What, Whether and How?’ is available open access under a CC BY 4.0 license via link.springer.com.

Progress in Motor Control

Adult Psychopathology and Diagnosis

Arm and Hand Movement: Current Knowledge and Future Perspective

ARM ; Manual for Performance and Scoring of the Fugl-Meyer Test (arm Section), Action Research Arm Test and the Box-and-Block Test

Brain-Computer Interfaces

A Patient-Centered Approach from Examination to Interventions and Outcomes

Willard and Spackman’s Occupational Therapy, Twelfth Edition, continues in the tradition of excellent coverage of critical concepts and practices that have long made this text the leading resource for Occupational Therapy students. Students using this text will learn how to apply client-centered, evidence based approach across the full spectrum of practice settings. Peppared with first-person narratives, which offer a unique perspective on the lives of those living with disease, this new edition has been fully updated with a visually enticing full color design, and even more photos and illustrations. Vital pedagogical features, including case studies, Practice Dilemmas, and Provocative questions, help position students in the real-world of occupational therapy practice to help prepare them to react appropriately.

Occupational Therapy for Physical Dysfunction

Empowering Cognitive, Physical, Social and Communicative Skills Through Virtual Reality, Robots, Wearable Systems and Brain-Computer Interfaces

Physiology and Clinical Disorders, Part II