
Considering that knowledge in the fields of basic motor control, brain reorganisation following injury, and clinical trials to improve functional performance following stroke is rapidly increasing, this text provides a timely and readable synopsis. The text provides clear and comprehensive information to answer the questions of “why” as well as “how” in the area of stroke rehabilitation. It provides not only an excellent literature review of specific areas for the budding researcher or experienced clinician, but also a clear and logical approach for the physiotherapy student or even stroke survivors and their families.

The book is presented in three sections. The first provides an overview of brain reorganisation following stroke, how the environment can influence this, and the importance of measurement. The section on mechanisms of functional recovery following stroke provides both classic and more recent studies as evidence for the importance of using intensive training of relevant tasks in an optimally stimulating environment. The rehabilitation environment is an important element that often gets overlooked in other similar texts. Here, predominantly recent evidence is used to support clinically relevant issues such as circuit training for stroke patients, the importance of focussing attention, the role of feedback, and task practice. These sections provide an overall background from which the more specific task-related sections build.

The second section comprises the bulk of the text and provides the scientific evidence behind the resultant clinical guidelines to train the motor skills of balance, walking, standing up and sitting down, and reaching and manipulation. All sections include a biomechanical description of the primary task, age-related changes, analysis of motor performance, guidelines for training and measurement, as well as notes on specific methods used in training such as treadmill training, forced use and the use of functional electrical stimulation. The structure of this material offers the reader a sound rationale for the training approach and selection of specific training strategies. The practical step-by-step approach to training and examples throughout help the reader consolidate the information and gather a pool of ideas to be used to train motor performance. Examples of different ways physiotherapists can deliver services are presented, including group work, work in pairs and a workstation approach.

A thorough discussion of potential limitations to motor performance following stroke is presented in section three. The primary impairments such as motor, sensory, visual, perceptual and motor planning are discussed, with suggestions based on scientific evidence, if available, as to how best to minimise their negative effects on function. Specific attention is then given to the major impairments of muscle weakness or paralysis, soft tissue contracture and a lack of endurance and physical fitness. Strength and physical conditioning training of the stroke patient have been controversial issues in the past. It is thus pleasing to see a discussion of more recent evidence advocating the importance of these areas and guidelines for clinicians based on research outcomes.

A final overview returns the focus of the text to the stroke survivor and the issues with which they present. From this perspective, guidelines for the provision of physiotherapy service within the acute stage of rehabilitation are outlined. Difficulties associated with maintaining and progressing functional abilities are identified including lack of follow-up services, poor access to services and a lack of follow-up services, and a lack of community exercise facilities. How these may be overcome is not addressed, but is beyond the scope of this book.

Illustrations are plentiful, clear and give detailed information. It is pleasing to see that the clinical hot topics such as treadmill, strength and conditioning training and circuit training are discussed. There is limited information in the text regarding the use of computerised balance systems for training. This would be a useful addition in a later edition as these systems have been the intervention of choice for many outcome studies and are becoming more common in Australia. Overall, however, this is a comprehensive, easy to read text highly recommended to clinicians and students involved in rehabilitation of the stroke survivor.

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