

BOOK REVIEW

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Title: Sensory Motor Stimulation
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The goal of this video is to introduce the viewer to a variety of specific techniques designed to increase sensory input from peripheral musculoskeletal proprioceptors and exteroceptors of skin in order to increase activation of subcortical regulatory systems as quickly as possible. Emphasis is placed on techniques used to maintain good posture and repeated dynamic movements, such as gait.

The video begins with a brief description of the two stages of motor learning. Pathways are traced, from the periphery to the subcortical and cortical areas of the brain on a simplified diagram that is difficult to read. The information, although not presented in great detail, is covered quickly, and the viewer may be required to review it several times to clearly understand the two basic theories. Following the brief introduction, the rest of the video consists of a series of progressively more difficult and complicated techniques that emphasize postural control and maximal proprioceptive input, through the foot.

The techniques begin with the patient maintaining balance in the standing position, followed by unilateral standing and unilateral squats. The therapist progresses to more elaborate techniques by applying slow and fast pushes to the shoulder and pelvis while the patient attempts to maintain his/her balance. Techniques are also demonstrated with the patient on a rocker board, wobble board, and mini tramp. The ultimate goal of the techniques demonstrated is to progress the patient as quickly as possible to the second level of motor control in which the cortex is protected and the decisive role of regulation of motor control is maintained by subcortical areas.

Overall, I found the quality of the video to be adequate; however, the diagrams describing the neurological pathways involved in motor learning could be improved. The sequence of material and techniques was easy to follow, and adequate time was spent demonstrating each technique; however, specific descriptions of neurological pathways involved with each technique were lacking. At times, I found it difficult to know whether the techniques demonstrated were aimed at stimulating cortical or subcortical motor learning. This may have been clearer if the therapist had described the neurophysiology while demonstrating the techniques.

The techniques described in this video are similar to those used in PNF and many functional closed-chain exercise programs. This tape would be a valuable addition to the library of clinicians who are unfamiliar with these techniques or who are looking for some variations in existing treatment programs, especially more advanced proprioceptive techniques. The emphasis on maintenance of pelvis and neck control makes it an excellent resource for treating orthopaedic patients with low back, cervical, and lower extremity problems. This video would be an excellent adjunct to a therapeutic exercise class in which students with a neurophysiological background were interested in exploring advanced techniques encouraging quick subcortical postural adaptations.