ESSENTIAL ARTICLES OF PM&R

REHABILITATION TECHNOLOGY AND ROBOTICS

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Treadmill training and body weight support for walking after stroke.
Mehrholz J, Pohl M, Elsner B. Cochrane Database Syst Rev 2014 Jan 23;1:CD002840. This review of 44 trials with 2658 participants found that improvements in walking endurance in ambulatory individuals post-stroke and persisting beneficial effects.

Effects of locomotor training after incomplete spinal cord injury: A systematic review.

Cortical effects of user training in a motor imagery based brain-computer interface measured by fNIRS and EEG.

Is motor-imagery brain-computer interface feasible in stroke rehabilitation?
Teo WP, Chew E. PMR 2014;6:723-728.

Proprioceptive feedback and brain computer interface (BCI) based neuroprostheses.

Assistive technologies: Can they contribute to rehabilitation of the upper limb after stroke?


A computer-aided walking rehabilitation robot.
A randomized comparative study of manually assisted versus robotic-assisted body weight supported treadmill training in persons with a traumatic brain injury.

Treadmill training with partial body-weight support compared with physiotherapy in nonambulatory hemiparetic patients.


Treadmill training with partial body weight support in nonambulatory patients with cerebral palsy.

Powered mobility for middle-aged and older adults: Systematic review of outcomes and appraisal of published evidence.

Power mobility device provision: Understanding Medicare guidelines and advocating for clients.
Dicianno BE, Tovey E. Archives of Physical Medicine and Rehabilitation 2007;88(6):807-16.

A Preliminary study on the impact of pushrim-activated power-assist wheelchairs among individuals with tetraplegia.

Effectiveness of automated locomotor training in patients with chronic incomplete spinal cord injury: A multicenter trial.