

**Literatur zum Artikel von Karin Brütsch, Ingo Borggraefe und Andreas Meyer-Heim: Roboter-assistierte Gangtherapie in virtueller Umgebung, in: „Praxis der Kinder-Reha 2010“, S. 26ff.**

Anderson, D.I., Magill, R.A., Sekiya, H. (2001): Motor learning as a function of KR schedule and characteristics of task-intrinsic feedback. *J Mot Behav.* 33:59-66.

Borggraefe, I., Meyer-Heim, A., Kumar, A., Schaefer, J.S., Berweck, S., Heinen, F. (2007): Significant improvement of gait parameters after robotic assisted locomotor treadmill therapy in a 6 year old child with cerebral palsy. *Mov Disord* 23:280-3.

Borggraefe, I., Klaiber, M., Schuler, T., Warken, B., Schroeder, S.A., Heinen, F., Meyer-Heim, A. (in press): Safety of robotic-assisted treadmill therapy in children and adolescents with gait impairment: a bi-center survey. *Dev Neurorehabil.*

Borggraefe, I., Kiwull, L., Schaefer, J.S., Koerte, I., Blaschek, A., Meyer-Heim, A., Heinen, F. (in press): Sustainability of motor performance after robotic-assisted treadmill therapy in pediatric patients with central gait disorders. *Euro J Phys Rehab Med.*

Brütsch, K., Schuler, T., König, A., Zimmerli, L., Mérillat (-Koencke), S., Lünenburger, L., Riener, R., Jäncke, L., Meyer-Heim, A. (in press): Virtual Reality Soccer Enhances Walking Performance in Robotic Assisted Gait Training of Children *Journal of Neuroengineering and Rehabilitation.*

Buccino, G., Binkofski, F., Riggio, L. (2004): The Mirror Neuron System and Action Recognition. *Brain and Language* 89 (2), 370-76.

Colombo, G., Joerg, M., Schreier, R., Dietz, V. (2000): Treadmill training of paraplegic patients using a robotic orthosis. *J Rehabil Res Dev.* 37 (6), 693-700.

Dobkin, B.H. (2005): Clinical practice. Rehabilitation after stroke. *N Eng. J Med.* 352, 1677-84.

Götz, U. (2007): Visuelle Präsentation von Lerninhalten in Serious Games. In: *Serious Game Design für die Psychotherapie.* Brezinka, V., Götz, U., Suter, B. (Hrsg). Edition Cyperfiction Zürich, 35-44.

Hesse, S. (2008): Treadmill training with partial body weight support after stroke: A review. *NeuroRehabilitation* 22, 1-11.

Hidler, J., Nichols, D., Pelliccio, M., Brady, K., Campbell, D.D., Kahn, J.H., Hornby, T.G. (2009): Multicenter randomized clinical trial evaluating the effectiveness of the Lokomat in subacute stroke. *Neurorehabilitation and Neural Repair* 23, 5-13.

Holden, M.K. (2005): Virtual environments for motor rehabilitation: review. *Cyberpsychol Behav.* 8,187-211.

Husemann, B., Muller, F., Krewer, C., Heller, S., Koenig, E. (2007): Effects of locomotion training with assistance of a robot-driven gait orthosis in hemiparetic patients after stroke: a randomized controlled pilot study. *Stroke.* 38, 349-54.

Johansson, B.B. (2000): Brain plasticity and stroke rehabilitation. *The Willis Lecture. Stroke.* 31, 223-30.

König, A., Brüttsch, K., Zimmerli, L., Guidali, M., Duschau-Wicke, A., Wellner, M., Meyer-Heim, A., Lünenburger, L., Köneke, S., Jäncke, L., Riener, R. (2008): Virtual environments increase participation of children with cerebral palsy in robot-aided treadmill training. *Proceedings of „Virtual Rehabilitation 2008“.*

König, A., Wellner, M., Köneke, S., Meyer-Heim, A., Lünenburger, A., Riener, R. (2008): Virtual Gait Training for Children with Cerebral Palsy using the Lokomat Gait Orthosis. *Stud Health Technol Inform.*132, 204-9.

Kwakkel, G., Van Peppen, R., Wagenaar, R.C., Wood Dauphinee, S., Richards, C., Ashburn, A., Miller, K., Lincoln, N., Partridge, C., Wellwood, I., Langhorne, P. (2004): Effects of augmented exercise therapy after stroke: a meta-analysis. *Stroke* 35, 2529-39.

Lünenburger, L., Colombo, G., Riener, R. (2007): Biofeedback for robotic gait rehabilitation. *J Neuroeng Rehabil.* 4 (1).

Maclean, N., Pound, P. (2000): A critical review of the concept of patient motivation in the literature on physical rehabilitation. *Soc Sci Med.* 50(4), 495-506.

Mayr, A., Kofler, M., Quirbach, E., Matzak, H., Frohlich, K., Saltuari, L. (2007): Prospective, blinded, randomized crossover study of gait rehabilitation in stroke patients using the Lokomat gait orthosis. *Neurorehabilitation and Neural Repair* 21, 307-14.

Meyer-Heim, A., Borggraefe, I., Reiffer, C., Berweck, St., Sennhauser, FH., Colombo, G., Knecht, B., Heinen, F. (2007): Feasibility of Robotic assisted locomotor training in children with central gait impairment. Dev Med Child Neurol. 49, 900-6.

Meyer-Heim, A., Ammann-Reiffer, C., Schmartz, A., Schäfer, J., Sennhauser, F.H., Heinen, F., Knecht, B., Dabrowski, E., Borggraefe, I. (2009): Improvement of walking abilities after robotic-assisted locomotion training in children with cerebral palsy. Arch Dis Child. 94, 615-20.

Rizzolatti, G., Fabbri-Destro, M., Cattaneo, L. (2009): Mirror neurons and their clinical relevance. Nat Clin Pract Neurol. 5, 24-34.

Schindl, M.R., Forsterner, C., Kern, H., Hesse, S. (2000): Treadmill training with partial body weight support in nonambulatory patients with cerebral palsy. Arch Phys Med Rehabil. 81, 301-06

Schuler, T. (2009): Virtual Reality as a Motivation Tool for Training in the Pediatric Robotic Assisted Gait Orthosis Lokomat: A Surface Electromyography (EMG) Study. Master-Thesis ETH Zurich.

States, R.A., Pappas, E., Salem, Y. (2009): Overground physical therapy gait training for chronic stroke patients with mobility deficits. Cochrane Database Syst Rev. 8 (3).

Winstein, C.J. (1991): Knowledge of results and motor learning – Implications for physical therapy. Physical Therapy 71 (2),140-9.