



Scientific Program Oral Presentations

TUESDAY, APRIL 7, 2009 - MOBILITY

8.00-9.00	Registration + coffee
9.00-9.15	Opening by conference chair Luc van der Woude Formal Opening by Lex Bouter, Rector Magnificus VU University Amsterdam

Wheeled mobility

Chairs: H. Bussman & C.A.J. Smit

9.15-10.00	KEYNOTE SPEAKER 1. Cooper, R.A. <i>Wheeled mobility: current and future developments</i>
10.00-10.45	Free presentations (3 x 15 min) 2. Hastings, J.D., Schepp, K.G., Goldstein, B., Logsdon, R., Demonbreun, D. <i>Outcomes after customized wheelchair configuration changes for sagittal plane alignment in manual wheelchair users with SCI and truncal paralysis; a pilot study</i> 3. Lenton, J.P., Fowler, N.E., van der Woude, L.H.V., Goosey-Tolfrey, V.L. <i>Mechanical efficiency of asynchronous hand-rim wheelchair propulsion after 4-weeks of practice</i> 4. Koontz, A.M., Gagnon, D., Brindle, E., Cooper, R.A. <i>Positioning the wheelchair closer to the target surface reduces shoulder muscular demand for sitting pivot transfers</i>
10.45-11.15	Active coffee break & Exhibition & Posters

Handcycling

Chairs: R. van der Berg & C.A.J. Smit

11.15-11.30	Free presentations (5 x 15 min) 5. Desroches, G., Louis, N., Dumas, R., Vaslin, Ph., Gorce, P., Chèze, L. <i>Shoulder joint moment contribution to movement during manual wheelchair propulsion</i> 6. Price, M.J., Thake, D.T., Campbell, I.G., <i>Perception of effort during incremental upper body exercise in able-bodied and paraplegic athletes</i>
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	<p>7. Valent, L.J.M., Dallmeijer, A.J., Houdijk, J.H.P., Slootman, H.J., Janssen, T.W.J., van der Woude, L.H.V. <i>Effects of hand cycle training on wheelchair capacity during clinical rehabilitation in persons with a spinal cord injury</i></p> <p>8. van Drongelen, S., Arnet, U., Veeger, H.E.J., van der Woude, L.H.V. <i>Propulsion effectiveness of synchronous handcycling</i></p> <p>9. Groen, W.G., van der Woude, L.H., de Koning, J.J. <i>The power balance model: useful in the study of elite handcycling performance</i></p>
12.30-13.45	Active Lunch Break & Exhibition & Posters

Prosthetics & orthotics gait

Chairs: H. Bussman & J.R. Slootman

13.45-14.30	<p>KEYNOTE SPEAKER 10. Hansen, A.H. <i>Roll-over shape as a tool for design, alignment, and evaluation of ankle-foot prostheses and orthoses</i></p>
14.30- 15.30	<p>Free presentations (4 x 15 min)</p> <p>11. Raggi M., Cutti A.G., Lippi S., Davalli A. <i>Stance-time asymmetry: comparison between C-leg users and able-bodied subjects</i></p> <p>12. Erjavec, T., Prešern, M., Šavrin, R. <i>Walking with above-knee prosthesis</i></p> <p>13. van Engelen, S.J.P.M., Wajer, Q.E., van der Plaat, L.W., van Dijk, C.N., Houdijk, J.H.P. <i>Metabolic energy cost and external mechanical work of level walking after ankle arthrodesis using different types of footwear</i></p> <p>14. Childers, W.L., Perell-Gerson, K.L., Kistenberg, R., Gregor, R.J. <i>Pedaling forces normalized to body weight in intact and uni-lateral transtibial amputees during cycling</i></p>
15.30-16.00	Active tea break & exhibition & posters

Aging, mobility & chronic diseases

Chairs: J.R. Slootman & H.L. Gerrits

16.00-17.15	<p>Free presentations (5 x 15 min)</p> <p>15. Lamoth, C.J.C., van Deudekom, F.J.A., van Campen, J.P., de Vries, O.J., Pijnappels, M. <i>Quantifying effects of dual task performance and cognition on gait coordination in elderly fall clinic patients using accelerometry</i></p>
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	<p>16. van den Berg-Emons, R.J., Bussmann, J.B., Haisma, J.A., Sluis, T.A., van der Woude, L.H., Bergen, M.P., Stam, H.J. <i>Prospective study on physical activity levels after spinal cord injury during inpatient rehabilitation and the year after discharge</i></p> <p>17. IJzerman, T.H., Melai, T., Meijer, K., Schaper, N.C., Willems, P.J.B., de Lange, A.L.H., Savelberg, H.H.C.M. <i>Muscle strength and mobility in diabetic patients with and without diabetic polyneuropathy</i></p> <p>18. Eriks-Hoogland, I., Perret, C., Hilfiker, R., Balk, S. <i>Determination of overweight in Spinal Cord Injury: comparison of different methods</i></p> <p>19. Niessen, M.H.M, Veeger, H.E.J., Meskers, C.G, Koppe, P.A., Konijnenbelt, M.H., Janssen, T.W.J. <i>Relation between shoulder proprioception, kinematics and pain after stroke</i></p>
17.15-18.00	Reception with refreshments
18.00-19.00	<p>KEYNOTE SPEAKER <i>Chair: T.W.J. Janssen</i></p> <p>20. Frontera, W.R. <i>Exercise in rehabilitation & chronic disease</i></p>
19.00-21.00	Dinner

WEDNESDAY, APRIL 8, 2009 - EXERCISE

8.00-8.30	Coffee
8.30-9.15	<p>KEYNOTE SPEAKER <i>Chairs: P. van Aanholt & J.H.P. Houdijk</i></p> <p>1. Nash, M.S. <i>Cardiovascular disease, spinal cord injury, and exercise: unique risks and focused countermeasures</i></p>

Exercise capacity

Chairs: P. van Aanholt & J.H.P. Houdijk

9.15-10.15	<p>Free presentation (4 x 15 min)</p> <p>2. van den Berg, R., Swart, C.M.A., de Groot, S., van der Woude, L.H.V. <i>Physical capacity after 7 weeks of low-intensity wheelchair training</i></p> <p>3. LaBreche, J.M., McKenzie, D.C. <i>Eucapnic voluntary hyperpnea testing in spinal cord injured athletes</i></p>
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**4. Mueller, G., Perret, C., Michel, F.**

Lung volumes in spinal cord injury - a distinct restrictive pattern

5. Latimer, A. E., Brawley, L. R., Conlin, C., Martin Ginis, K. A.

Examining community organizations' capacity to disseminate evidence-based physical activity promotion initiatives for people with spinal cord injury

10.15-10.45 Active coffee break & Exhibition & Posters

Everyday physical activity

Chairs: R. van den Berg & P. van Aanholt

10.45-11.30 Free presentations (3 x 15 min)

6. Hetz, S.P., Latimer, A.E., Martin Ginis, K.A.

Activities of daily living and CHD risk factors among individuals with chronic spinal cord injury

7. Tanhoffer, R.A., Tanhoffer, A.I.P., Pithon, K.R., Estigoni, E.H., Raymond, J., Davis, G.M.

Estimation of energy expenditure derived from a body-worn sensor versus indirect calorimetry in wheelchair users

8. Nieuwenhuijsen, C., van der Slot, W.M.A., Beelen, A., Arendzen, J.H., Roebroek, M.E., Stam, H.J., van den Berg-Emons, H.J.G.

Inactive lifestyle in adults with bilateral spastic cerebral palsy

Poster session

11.30-12.30 Poster session I (odd numbers)

12.30-13.45 Active lunch break & exhibition & posters

Training strategies

Chairs: C.A.J. Smit & S. de Groot

13.45-14.30 KEYNOTE SPEAKER

9. Gerrits, K.H.

Lokomat: automated electromechanical gait training in neurological patients

14.30-15.30 Free presentations (4 x 15 min)

10. Kasperavicius, M. L., Latimer, A. E., Hetz, S. P., McColl, M. A., McGuire, M., Smith, K.

A preliminary evaluation of a community-based exercise program for people with mobility impairments



- 11. Scholtes, V.A., Dallmeijer, A., Houdijk, J.H.P., Dijk, L., Jansen-Potten, Y. Becher, J.G.**
Changes in muscle strength and walking ability after progressive resistance functional strength training in children with cerebral palsy; a randomized controlled trial
- 12. Mossberg, K.A., Masel, B.E.**
Endurance training and improved aerobic capacity after traumatic brain injury
- 13. Swinnen, E., Kerckhofs, E., Knaepen, K., Duerinck, S., Vaes, P., Van Roy, P., Baeyens, J-P., Pouliart, N., Beyl, P., Cherelle, P., Kool, P., Lefeber, D., Meeusen, R.**
Effectiveness of robot-assisted gait rehabilitation in spinal cord injury (SCI) patients: a critical appraisal of the literature
- 15.30-16.00 Active tea break & exhibition & posters

FES

Chairs: M.T.E. Hopman & D.J. Veeger

- 16.00-17.15 Free presentations (5 x 15 min)
- 14. Thijssen, D.H.J., van Duijnhoven, N.T.L., Janssen, T.W.J., Green, D.J., Minson, C.T., Hopman, M.T.E.**
Effect of functional electrostimulation on impaired skin vasodilator responses to local heating in spinal cord injury
- 15. Estigoni, E. H., Fornusek, C., Song, T., Tanhoffer, R., Smith, R., Davis, G.M.**
Evoked EMG and muscle fatigue during isokinetic FES cycling in individuals with SCI
- 16. Reichenfelser, W., Hackl, H., Wiedner, J., Hufgard, J., Gestaltner, K., Gfoehler, M., Mina, S., Hanke, S.,**
Influence of FES cycling training on spasticity in subjects with incomplete spastic paraplegia
- 17. van Duijnhoven, N.T.L., Hesse, E.O., Janssen, T.W.J., Knippenberg, M., Scheffer, P.G., Hopman, M.T.E.**
The impact of exercise training on oxidative stress in spinal cord-injured individuals
- 18. Szecsi, J., Schlickac, C., Schillera, M., Pöllmannb, W., Koenigb, N., Felderc, H., Straubea, A.,**
Functional electrical stimulation assisted cycling of patients with multiple sclerosis: Biomechanical and functional outcome
- 17.15-18.00 Reception with refreshments

**Genetics and exercise**

Chair: T.W.J. Janssen

18.00-19.00	KEYNOTE SPEAKER 19. Hopman, M.T.E. <i>Genetics and exercise</i>
19.00-21.00	Dinner

THURSDAY, APRIL 9, 2009 - SPORTS

8.00-8.30	Coffee
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Sports performance

Chair: R. Dekker & H.L. Gerrits

8.30-9.15	KEYNOTE SPEAKER 1. Vanlandewijck, Y. <i>Research in sports, performance & rehabilitation</i>
9.15-10.15	Free presentation (4 x 15 min) 2. Mason, B.S., van der Woude, L.H.V., Tolfrey, V.L., <i>The influence of glove type on mobility performance for wheelchair rugby players</i> 3. Buffart L.M., van der Ploeg H.P., Bauman A.E., van Asbeck F.W., Stam H.J., Roebroek M.E., van den Berg-Emons R.J.G. <i>Sports participation in adolescents and young adults with spina bifida and its role in total physical activity behavior and fitness</i> 4. Fliess-Douer, O., van der Woude, L.H.V., Vanlandewijck, Y. <i>The most essential wheeled mobility skills for daily life – an international survey among elite wheelchair athletes with SCI</i> 5. Perret, C., Leuppi, J., Michel, F., Strupler, M. <i>Spirometric assessment of wheelchair athletes at home and during the Paralympics in Beijing 2008</i>
10.15-10.45	Active coffee break & exhibition & posters

Running

Chairs: C. van Bennekom & R. Dekker

10.45-11.30	Free presentations (3 x 15 min) 6. Hutzler, Y., Yogev, R., Yzhar, Z. <i>Wheel assisted running training in children with cerebral palsy: A controlled clinical trial</i>
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7. Ng, G.Y.F., Cheung, R.T.H.

Motion control shoe affects the lower leg muscle activities in runners with over-pronation

8. Bragaru, M., Dekker, R., Geertzen, J.H.B., Dijkstra, P.U.

A Systematic Review of Literature on Amputees and Sports

Poster session

11.30-12.30	Poster session II (even numbers)
12.30-13.45	Active Lunch Break & Exhibition & Posters

Wheeled Sports

Chairs: S. de Groot & C. van Bennekom

13.45-14.30	KEYNOTE SPEAKER 9. Goosey-Tolfrey, V.L. <i>Supporting the paralympic athlete: focus on wheeled sports</i>
14.30-15.30	Free presentations (4 x 15 min) 10. West, C.R., Taylor, B.J., Campbell, I.G., Romer, L.M. <i>Validity of the international wheelchair basketball and rugby classification systems</i> 11. Perret, C., Strupler, M. <i>Practical application of the heart rate-based lactate minimum test in wheelchair racing athletes pre-paring for the Paralympics</i> 12. Gil-Agudo, A., Del Ama-Espinosa, A., Crespo-Ruiz, B., Pérez-Nombela, S. <i>Use of biomechanical analysis to classify basketball players in wheelchairs</i> 13. Altmann, V.C., Hart, A., van den Eede, E., <i>Improving classification: who is eligible for wheelchair rugby?</i>
15.30-16.00	Active Tea Break & Exhibition & Posters

Sports, Disability & Classification

Chair: J.H.P. Houdijk

16.00-16.45	KEYNOTE SPEAKER 14. van Hilvoorde, I.M. <i>Sports, Disability & Classification, a Philosophers Debate?</i>
16.45-17.00	Final words conference chair