Wetenschap rond actieve leefstijl, sport en handicap

Een inkoek in actueel bewegingswetenschappelijk revalidatieonderzoek
28 oktober 2011

Spinal cord injury?
• Primary impairments: motor, sensory & autonomic
  • 150-300 pat./yr; male, young
  • Netherlands: 12,000
• Life expectancy
• Specialized Units
• 80% wheelchair dependent
• Leg >> arm work
• Inactive lifestyle?
• Secondary impairments:
  • Infections; decubitus, osteoporosis
  • CVD & Overuse MSS
=> Restoration of mobility in rehab?

SCI Restoration of Mobility: key-problems?
• Upper body/arm work
  • Loss of Function: Small muscle mass, not well trained
  • Complex & vulnerable upper body musculoskeletal system
• SCI
  • Incomplete motor system & autonomic disturbances
• (Highly) repetitive mechanical & cardio-resp stress
  • wheelchair use & ADL => inactivity….overuse?
  • Stress ⇄ Strain ⇄ Work Capacity !
  ⇒ Rehabilitation
  ⇒ secondary impairments
  ⇒ vicious circle

Low fitness in SCI?!
Person and lesion related factors

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<th>level</th>
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Fitness: Peak wheelchair exercise test

Mlwin outcome (n=125)

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Haisma ea, 08 & Dallmeijer ea 05

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5 yrs after discharge SCI rehab?

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Van Koppenhagen et al. in preparation (N=128)

Similar trends
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Optimal intensity freq duration for m?
Guidelines?

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Haisma et al. 2011

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**Low-intensity exercise?!**

From Research to Rehab: patient monitoring?

- Implementation limited # of measurements in rehab
- Pre-/post tests & form, intensity, freq, duration
- Individual treatment process
- Reference database
- Treatment strategy
- Develop guidelines
- Continuous Support of professionals + Multidisciplinary discussion
- Multicenter collaboration

**Research Network**

`'Restoration of mobility in SCI rehabilitation.'`

Thank you for your attention!