

DBC Spine Research

Publications in international peer-reviewed journals

1. Epidemiology and risk factors

Peltonen JE, Taimela S, Erkintalo M, Salminen JJ, Oksanen A, Kujala UM. Back extensor and psoas muscle cross-sectional area, prior physical training and trunk muscle strength - a longitudinal study in adolescent girls. *Eur J Appl Physiol* 1998; 77:66-71.

Taimela S, Kujala UM, Salminen JJ, Viljanen T. The prevalence of low-back pain among children and adolescents - A nation-wide cohort-based questionnaire survey in Finland. *Spine* 1997; 22:1132-1136 .

Laurén H, Luoto S, Alaranta H, Taimela S, Hurri H, Heliövaara M. Arm motion speed and risk of neck pain. *Spine* 1997; 22: 2094-2099.

Kujala UM, Oksanen A, Taimela S, Salminen JJ. Training does not increase maximal extension position of the healthy back. *Clin. Biomech.* 1997; 12:181-184.

Taimela S. Chronische Schmerzen des unteren Rückens. Prinzipien und prognostische Faktoren gymnastischer Übungen. *Manuelle Medizin*, 1997; 35:194-205.

Kujala UM, Taimela S, Videman T, Battie MC, Viljanen T. Physical loading and performance as predictors of back pain in healthy adults. A 5-year prospective study. *Eur. J. Appl. Physiol.* 1996;73:452-458.

2. Etiology, Evaluations and Diagnostics

Luoto S, Taimela S, Hurri H, Alaranta H. Mechanisms explaining the association between low back trouble and deficits in information processing. A controlled study with follow-up. *Spine* 1999;24(3):255-61.

Taimela S, Kankaanpää M, Luoto S. The effect of lumbar fatigue on the ability to sense a change in lumbar position. A controlled study. *Spine* 1999;24(13):1322-7.

Kankaanpää M, Taimela S, Laaksonen D, Airaksinen OV, Hänninen OO. Back and hip extensor fatigability in chronic low back pain patients and controls. *Arch Phys Med Rehabil* 1998; 79: 412-417

Taimela S, Kankaanpää M, Airaksinen OV. A submaximal back endurance test utilising subjective

perception of low back fatigue. *Scand J Rehab Med* 1998 30:107-112.

Kankaanpää M, Laaksonen D, Taimela S, Kokko SM, Airaksinen OV, Hänninen OO. Age, sex and body mass index as determinants of back and hip extensor fatigue in isometric Sorensen back endurance test. *Arch Phys Med Rehabil* 1998; 79: 1069-1075

Luoto S, Taimela S, Alaranta H, Hurri H. Psychomotor speed and Postural control in Chronic Low-back pain patients and Healthy controls - Determinants and predictive value for functional restoration outcome. *Eur J Phys Med Rehabil.* 1998;8:81-86.

Kankaanpää M, Taimela S, Airaksinen O. Reference change limits of the paraspinal spectral EMG in evaluation of low back rehabilitation. *Pathophysiology* 1998; 5: 217-224

Luoto S, Taimela S, Alaranta H, Hurri H. Psychomotor speed in chronic low-back pain patients and healthy controls: construct validity and clinical significance of the measure. *Percept Mot Skills* 1998(87):1283-1296.

Luoto S, Aalto H, Taimela S, Hurri H, Pyykko I, Alaranta H. One-footed and externally disturbed two-footed postural control in patients with chronic low back pain and healthy control subjects. A controlled study with follow-up. *Spine* 1998;23(19):2081-9; discussion 2089-90.

Kankaanpää M, Taimela S, Webber CL, Airaksinen OV, Hänninen OO. Lumbar paraspinal muscle fatigability in repetitive isoinertial loading: EMG spectral indices, Borg scale and endurance time. *Eur J Appl Physiol* 1997; 76:236-242.

Taimela S, Österman K, Alaranta H, Soukka A, Kujala UM. Long psychomotor reaction time in patients with chronic low-back pain - preliminary report. *Arch Phys Med Rehabil* 1993;74:1161-4.

3. Treatment

Taimela S, Takala E-P, Asklöf T, Seppälä K, Parviainen S. Active Treatment of Chronic Neck Trouble: A Prospective Randomised Intervention with Multi-modal Treatment Emphasizing Proprioceptive Training, Neck Lecture and Activated Home Exercises, and Neck Lecture with a Recommendation of Exercise. *Spine* 2000;25:1021-1027

Leinonen V, Kankaanpää M, Airaksinen O, Hänninen O. Back and hip extensor activities during trunk flexion/extension: effects of low back pain and rehabilitation *Arch Phys Med Rehabil* 2000;81(1):32-7.

Mannion AF, Muntener M, Taimela S, Dvorak J. Volvo 1999 award: A randomized clinical trial of three active therapies for chronic low back pain. *Spine* 1999;24(23):2435-48

Kankaanpää M, Taimela S, Airaksinen O, Hänninen O. The Efficacy of Active Rehabilitation in Chronic Low Back Pain Effect on Pain Intensity, Self-Experienced Disability, and Lumbar Fatigability. *Spine* 1999;24, (10):1034-1042.

Arokoski JP, Kankaanpää M, Valta T, Juvonen I, Partanen J, Taimela S, et al. Back and hip extensor muscle function during therapeutic exercises. *Arch Phys Med Rehabil* 1999; 80(7):842-50.

Luoto S, Taimela S, Hurri H, Aalto H, Pyykkö I, Alaranta H. Psychomotor speed and postural control in chronic low-back pain patients: A controlled follow-up study. *Spine* 1996; 21:2621-2627

Taimela S, Härkäpää K. Strength, mobility, their changes and pain reduction in active functional restoration for chronic low back disorders. *J. Spin. Disord.* 1996; 9: 306-312.

Simo Taimela, MD, DrMedSc, Carlo Didrich, Pt., Michel Heinrichy, Pt.

The Role of Physical Exercise Inactivity on Low Back Pain Recurrence and Absenteeism from Work after Active Outpatient Rehabilitation for Recurrent-Chronic LBP: A Follow-up Study. *Spine* 2000; 25: 1809-1816

In press citations

4. Abstracts

1. Epidemiology and risk factors

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