

HH Hamberg van Reenen et al. Scand. J. Work and Environ. Health. (2006) Vol. 32#3 p 190 – 197
Is an imbalance between physical capacity and exposure to work-related physical factors associated with low-back, neck or shoulder pain?

There is limited evidence to support the theory that mismatch between work demands and functional capacity would increase the risk of a pain problem. The evidence is highly inconsistent but the theory cannot be discounted altogether.

The 3 year prospective study of 1789 workers was designed to test the person fit hypothesis of musculoskeletal disorders. The hypothesis is that an imbalance between physical capacity and physical work demands will lead to a higher incidence of pain-related problems.

Outcomes were determined by self report annually.

For both low-back and neck pain an imbalance between static endurance and the need to work with flexed postures were both associated with a higher incidence of pain. Relative risks were both 1.4 and of marginal statistical significance. For other pains there was no consistent trend.

Overall there was no consistent support for the hypothesis.

Comment

The experiment was well designed and should have been able to detect whether imbalance between physical capacity and physical work demands was a risk factor for pain problems. That there was no consistent support for the hypothesis does not mean the hypothesis is completely wrong; there seems to be some support for poor postures as a risk factor for neck and low back pain.

