

Ottar Vasseljen

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Biography

Ottar Vasseljen graduated with a bachelor's degree in Physical Therapy from University of Utah, Salt Lake City, USA, in 1982. He received his doctoral degree (PhD) from University of Trondheim, Norway, in 1995 with a thesis entitled "Work related shoulder and neck pain with reference to muscle activity, individual factors and psychosocial exposures." Since 2000 he has been associated professor at the Department of public health and general practice, Faculty of medicine, Norwegian university of science and technology (NTNU), Trondheim, Norway. He is involved with teaching for medical students and master students in Health Science, and serves as the faculty's coordinator for the Master program in Health Science. Educational responsibilities are within clinical research methods, musculoskeletal disorders and motor control. Research interests are mainly in neuromuscular control in relation to neck and low back pain, where muscular timing and kinaesthesia are of principal focus.

Abstract

Musculoskeletal disorder is the most frequent contact-reason in primary practice, and neck and low back pain accounts for the majority of such complaints. With few exceptions there is no clear understanding of pathophysiological mechanisms. Diagnostics is thus largely based on subjective health complaints with reference to body locations. Within this field, two essential pain models have prevailed; the pain-spasm-pain model (Travel 1942, Johansson and Sojka 1991) and the pain-adaptation model (Lund 1991). The models do however not fully integrate functional aspects of back pain, such as spinal stability, balance and motor control, including sensorimotor control. Motor control changes that are functional to the patient, are not sufficiently incorporated in neither model (van Dieen 2003). Panjabi has recently introduced an alternative model which argues that peripheral tissue damage involving mechanoreceptors creates a sensorimotor mismatch in the central nervous system, eventually leading to chronic back pain. The model will be presented and whether the model is supported by scientific evidence.