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PREVALENCE OF MUSCULOSKELETAL STRAIN IN OFFICE WORKERS ASSOCIATION WITH WORKING ABILITY AND ERGONOMICS

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Musculoskeletal strain (MSS) is one of the mayor health problems in office workers (OW), while in EU these affecting millions of workers and cost companies a billion euros every year. Working long time in sitting position in unergonomic work postures causes MSS and working ability loss. The aim of the present study is to evaluate musculoskeletal strain in office workers association with working ability, and ergonomic workplace environment conditions. All participants worked in Estonian Government Buildings whole workday with computer in sitting position. Participants filled modified Nordic questionnaire, which evaluates MSS in last 30 days in eight different body regions. Work ability was assessed by standardized questionnaire (Finnish Institute of Occupational Health), where calculated work ability index (WAI). Results showed that MSS in last 30 days was localized primarily in low back (69%), in neck (67%), in shoulders (56%), and in upper back (51%). Women perceived more MSS in upper back ($p=0.032$), in shoulders ($p=0.027$), and in neck (0.002) compared with men. OW-s average work ability according to WAI was "good" (result \pm SD: 38 ± 5). Lowest work ability index was noted in age group 40-49 a (1%). OW-s, who weren't satisfied with their workplace ergonomics, perceived more MSS ($p<0.05$) (in wrist, in upper back, in shoulders, and in low back In conclusion office workers in Estonia perceived more musculoskeletal strain in low back, in neck, in shoulder, in upper back, and in wrist. Unergonomic workplace causes often MSS in OW. Work ability loss is noted in individual office workers, starting at the age of 40. To avoid and prevent musculoskeletal strain it is obligatory to evaluate workplace ergonomics, use ergonomic equipment, and take rest breaks during workday.

Recent Publications

1. Sirge Triinu, Erelaine Jaan, Kums Tatjana, Gapeyeva Helena, Pääsuke Mati (2017). Motor function characteristics in supermarket cashiers with and without low back pain. NES Joy at Work. Ed. Anna-Lisa Osvalder, Mikael Blomé and Hajnalka Bodnar (Eds.). Lund University: Lund University, 148.

2. Sirge Triinu (2017) Our bodies are designed to move. *Personnel Praktik*. 64:36-37.
3. Sirge Triinu (2016) et al. Prevalence and localization of musculoskeletal strain in female office workers. *Publications of the University Eastern Finland. Report and Studies in Health Sciences* 22. 2016, 276 p., 160-163.
4. Sirge Triinu (2016). Kuidas muuta kuvariga töökoht ergonomiliseks? (How to design ergonomic office workplace?). *Personali Praktik*, 57, 34-36.
5. Sirge T (2014) Musculoskeletal symptoms, and perceived fatigue and work characteristics in supermarket cashiers. *Agronomy Research*. 12(3):915-924.

Biography

T Sirge has completed (2010) her studies in Estonian University of Life Sciences, the only place in Estonia, where you can study ergonomics. She is currently completing her Doctoral studies at University of Tartu, in movement and sport sciences. She is an active Member in ErgoEst (Ergonomics Association in Estonia), Founder of Ergoway OÜ (leading occupational health, safety, and ergonomics company). She has published many articles about ergonomics, musculoskeletal discomfort and occupational health.

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