Methods A study group of 1295 women and 1056 men aged 18–29 years was selected from three biennial years of a population cohort. The study group had completed a work environment questionnaire in a survey conducted by Statistics Sweden. Associations between opportunities for recovery at work and excellent work ability were assessed by multiple logistic regression models stratified for gender.

Results Having varied work was associated with excellent work ability in all young men ($p < 0.0006$; prevalence ratio [PR] 1.3) and also specifically in men with high work demands ($p = 0.019$; PR 1.3). For the latter group the possibility of deciding when to perform a work task was also associated with excellent work ability ($p = 0.049$; PR 1.3). Among young women with high work demands, the possibility of deciding one's working hours was associated with excellent work ability ($p = 0.046$; PR 1.2).

Conclusions For young men, having varied work can contribute to excellent work ability. In addition, for men with high work demands, the possibility of deciding when to perform a work task may be favourable for excellent work ability. For young women with high work demands, the possibility of deciding one's working hours can contribute to excellent work ability. Employers could use these opportunities for recovery in promoting work ability among young workers.

Oral Presentation

Occupational Medicine (SCOM/Modernet)

0031

WORK-RELATED PHYSICAL RISK FACTORS FOR SPECIFIC SHOULDER DISORDERS: SYSTEMATIC REVIEW AND META-ANALYSIS

¹Henk van der Molen*, ²Chiara Foresti, ¹Joost Daams, ¹Monique Frings-Dresen, ¹Paul Kuijer. ¹Coronel Institute of Occupational Health, Netherlands Centre for Occupational Diseases, Academic Medical Centre, Amsterdam, The Netherlands; ²School of Occupational Medicine, Department of Medical and Surgical Sciences, University of Bologna, Bologna, Italy

10.1136/oemed-2017-104636.21

Objective To examine the association between work-related physical risk factors and clinically assessed specific soft tissue shoulder disorders like supraspinatus tendinitis and impingement.

Methods Medline and Embase were searched from 2009 until 24 March 2016 and references were added of a systematic review on this topic describing studies published before 2009. Case-control and cohort studies were included if the soft tissue shoulder disorder was clinically assessed. Meta-analyses and GRADE were performed to assess the evidence and quality for the studies on work-related risk factors.

Results In total seven longitudinal studies including 16 710 patients with specific soft tissue shoulder disorders from a population of 2,427,535 workers from Denmark, Finland, France, Germany and Poland were included in the meta-

analysis. Moderate to high evidence was found for associations between arm-hand elevation (OR=2.10, 95% CI 2.01–2.20), arm repetition (OR=1.69, 95% CI 1.03–2.78), hand force exertion (OR=1.57, 95% CI 1.27–1.93), shoulder load (OR=2.01, 95% CI 1.90–2.12) and low evidence for hand-arm vibrations (OR=1.34, 95% CI 1.01–1.77).

Conclusions Arm-hand elevation, arm repetition, hand force exertion and/or hand-arm vibration during work, increase the incidence of specific soft tissue shoulder disorders.

Oral Presentation

Ageing Workforce

0032

PHYSICAL CAPACITY IN MIDLIFE AND LABOUR MARKET ATTACHMENT AMONG OLDER WORKERS: PROSPECTIVE COHORT STUDY WITH REGISTER FOLLOW-UP

¹Emil Sundstrup*, ^{1,2}Åse Marie Hansen, ^{2,4}Erik Lykke Mortensen, ¹Otto Poulsen, ¹Thomas Clausen, ^{1,2}Reiner Rugulies, ³Anne Möller, ¹Lars Andersen. ¹National Research Centre for the Working Environment, Copenhagen, Denmark; ²Department of Public Health, University of Copenhagen, Copenhagen, Denmark; ³Department of Psychology, University of Copenhagen, Copenhagen, Denmark; ⁴Center for Healthy Ageing, University of Copenhagen, Copenhagen, Denmark

10.1136/oemed-2017-104636.22

Introduction We aim to determine the prospective association of different physical capacity tests with health related labour market outcomes among older workers.

Methods The prospective risk of register-based long-term sickness absence (LTSA) and disability pension from measured musculoskeletal capacity (jump performance, postural balance, sit-to-stand, explosive muscle strength, and maximal strength of the hand, back and abdominal muscles) and cardiovascular capacity (lung function and aerobic fitness) were estimated among 5076 older workers from the Copenhagen Ageing and Midlife Biobank. Time-to-event analyses were censored for competing events and adjusted for age, gender, physical and psychosocial work environment, lifestyle, socioeconomic position and previous LTSA.

Results Low physical capacity in many of the tests (less than 1SD below mean) predicted risk of LTSA and disability pension. Specifically, low aerobic fitness (HR 5.9), low jump performance (HR 2.7) and low abdominal muscle strength (HR 3.3) predicted risk of disability pension. A dose-response association was observed between number of musculoskeletal capacity tests with low performance and disability pension and LTSA - with the risk-estimate for disability pension being 7.6 when low capacity was present in ≥ 5 musculoskeletal capacity tests. Population attributable risks for disability pension and LTSA from poor musculoskeletal capacity were 33% and 8%, respectively.

Conclusions Poor musculoskeletal and cardiovascular capacity in midlife increased the risk for LTSA and disability pension. Promoting physical capability to a normal level among older workers with low capacity may have the opportunity to prevent premature exit from the labour market.