significantly associated with RCD surgery after more than 10 years of work (Ex. HR for 11–20 years vs. 0 years with static strength score ≥4 = 2.06, 95% CI = 1.39–3.04).

Conclusion Numerous occupational physical exposures were associated with incident RCD surgery. Associations were strongest in workers with more than a decade of high exposure.

**ASSOCIATIONS BETWEEN FEELING COLD AT WORK AND WORK PERFORMANCE IN A COLD-EXPOSED WORKING POPULATION FROM THE TROMSO 6 STUDY**

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Objective Cold exposure is associated with an increased prevalence of musculoskeletal pain. We found earlier that employees spending ≥25% of their working time in cold environments had higher odds of chronic musculoskeletal pain. There was a consistent tendency of higher odds for increasing frequency of feeling cold. Cold exposure can also interfere with work performance. The aim of this study was therefore to investigate if the frequency of cold experience was associated with impaired work performance.

Methods We used data from the sixth survey of the Tromso study (2007–2008). Participants aged 30–67 years who reported to work in a cold environment ≥25% of the time, were not retired, not receiving full-time disability benefits and without missing values were included, leading to 793 participants. Feeling cold was categorized into never, sometimes and often feeling cold. Work performance variables comprised of binary variables of impaired control of movement, heavy physical work and long-lasting physical work, finger dexterity and sensitivity. Associations between feeling cold at work and self-reported work performance were examined with Poisson-sensitivity. Associations between feeling cold at work and impaired work performance. The aim of this study was therefore to investigate if the frequency of cold experience was associated with impaired work performance.

Results Both prevalence of impaired work performance and associations between frequency of feeling cold and impaired work performance were consistently lower for those never feeling cold and higher for those feeling cold often, compared to those feeling cold sometimes. In the fully adjusted model, the strongest associations were found for impaired long-lasting work performance with prevalence ratio (PR) 0.35 (95% CI 0.20–0.62) for never feeling cold and PR 1.81 (95% CI 1.35–2.42) for feeling cold often. For impaired heavy work PRs were 0.53 (95% CI 0.31–0.90) and 2.13 (95% CI 1.50–3.04), respectively.

Conclusion In this cross-sectional study on cold-exposed workers, cold experience frequency was associated with work performance with the tendency of increased work impairment with increasing frequency of feeling cold.


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Introduction Non traumatic work-related musculoskeletal disorders (WMSD) represent an enormous burden of preventable illness. Two strategies and data sources to document this burden and identify workers at highest risk were compared.

Objectives To identify gender-stratified worker groups at high risk of non-traumatic WMSD by industry and type of occupation and compare WC to health survey results.

Methods Using 2014–2015 Quebec Health Survey (QPHS) data on 24,300 workers, measuring self-reported WMSD and industry groupings stratified by occupation (manual/mixed/non-manual), WMSD risk for each industry-occupation group was estimated using gender-stratified adjusted regression analyses and estimation methods. Using Quebec 2010–2012 workers’ compensation (WC) data, gender-stratified WMSD incidence rates per 1,000 full-time equivalent employees (% FTEE) were calculated for 174 industry-type-of-occupation groups. WMSD risk was ranked according to Prevention Index scores.

Results In both studies, women in manual occupations had the highest WMSD risk compared to male counterparts (WC: 39% vs 27%. FTEE; QPHS: 36% vs 25%); manual male and female workers in administrative/support/cleaning/garbage services were identified at high risk; as well as women in accommodation/restaurant and men in specialised construction trades, civil engineering, and metal manufacturing. Compensation data identified another 9 high-risk groups for men, and 11 for women including 3 health sector groups that ranked in the top 5 for women. Conversely, the QPHS identified another 13 high risk groups in men including several construction and manufacturing sectors and 5 in women.

Discussion Differences between the 2 studies’ results are likely due to methodologic differences, including under-reporting in compensation data and the survey’s low power to identify some industries stratified by gender and occupation. Results of the two studies are complementary and each adds to our understanding of which groups are at WMSD risk to target for prevention. Research is needed to compare different survey and compensation data analytic strategies to improve capacity to identify workers at high WMSD risk.

**PAIN IN HEALTHCARE WORKERS: A PERSPECTIVE OF MULTIDISCIPLINARY APPROACH**

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Introduction Health professionals deal with numerous hazards during their occupational life from a physical and mental point of view: precarious working conditions, irregular working hours, emotional pressure, physically demanding jobs, involving weight lifting and manual tasks, which may cause pain and musculoskeletal disorders. Our occupational health service assists more than 20,000 health workers in a large hospital complex in Latin America. It consists of a multidisciplinary team involving physicians, psychologists, engineers, occupational therapists, physiotherapists, as well as an emergency care service where workers may seek immediate medical attention.

Objective To describe the most frequent complaints related to musculoskeletal pain in emergency medical care at our
Muskuloskeletal-2  

**O-20** PREVALENCE, PREDICTORS AND WAGE REPLACEMENT DURATION ASSOCIATED WITH DIAGNOSTIC IMAGING IN AUSTRALIAN WORKERS WITH ACCEPTED CLAIMS FOR LOW BACK PAIN: A RETROSPECTIVE COHORT STUDY  

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**Introduction** Diagnostic imaging is not recommended for low back pain (LBP) in the absence of clinical evidence to suggest a serious pathology is the cause of pain. Workers may access funding for wage replacement and healthcare, including diagnostic imaging, from workers’ compensation if they cannot work due to LBP.  

**Objectives** This study sought to determine in Australian workers with accepted workers’ compensation claims for LBP (1) the prevalence of diagnostic imaging of the spine and factors associated with its use, and (2) the association between spinal diagnostic imaging events and wage replacement duration.  

**Methods** Workers with accepted workers’ compensation claims for LBP longer than two weeks were grouped by whether workers’ compensation funded no, single, or multiple diagnostic spinal imaging in the two years since reported low back pain onset. Ordinal logistic regression was used to define the demographic, occupational and social factors associated with each group. Time-to-event analysis was used to determine the association between spinal imaging and wage replacement duration.  

**Results** In the sample of 30,530 workers, 9,267 (30.4%) received single spinal imaging and 6,202 (20.3%) received multiple spinal imaging. Male workers and workers from the state of Victoria had significantly higher odds of multiple imaging. Socioeconomically advantaged workers and workers from remote Australia had significantly lower odds of multiple imaging. Magnetic Resonance Imaging was the most common imaging modality. Workers with single spinal imaging (median duration 17.0 weeks; HR 2.0, 95%CI 1.9, 2.1) and multiple spinal imaging (median duration 49.0 weeks; HR 4.0, 95%CI 3.9, 4.1) had significantly longer wage replacement duration than those with no imaging (median duration 6.1 weeks).  

**Conclusions** Over half of Australian workers with an accepted workers’ compensation claim for LBP longer than two weeks received diagnostic spinal imaging. Receipt of diagnostic imaging, particularly multiple imaging, was associated with longer wage replacement duration.