



[A prospective cohort study on risk factors of musculoskeletal complaints \(pain and/or stiffness\) in a general population. The Tromsø study.](https://arctichealth.org/en/permalink/ahliterature284068)

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Abstract: Female gender has been associated with musculoskeletal complaints (MSCs), but there are limited studies on how other factors may influence women and men differently. The aim of this prospective cohort study was to explore possible predictors of MSCs in women and men free of MSCs at baseline.

The present study included participants from the population-based Tromsø study, with baseline data from 1994-1995 and follow-up data from 2007-2008. MSCs were defined as having pain and/or stiffness in muscles and joints for 3 consecutive months during the past year. Predictors of MSCs were examined through binary logistic regression analyses and presented as odds ratios with 95% confidence intervals.

At baseline 4,496 participants reported no MSCs and among these 2,015 (44.8%) and 441 (9.8%) participants reported mild or severe MSCs, respectively, at follow-up. Female gender predicted MSCs in multivariable logistic regression analyses (odds ratio [OR] 1.46, 95% confidence interval [CI]: 1.29-1.66). Educational level of primary/secondary school (OR 1.73, 95% CI: 1.46-2.05) was the strongest predictor of MSCs, followed by poor self-perceived health (OR 1.62, 95% CI: 1.30-2.02). Other predictors were BMI \geq 30 kg/m² (OR 1.39, 95% CI: 1.10-1.77) and smoking (OR 1.33, 95% CI: 1.16-1.52). Age and physical activity level were not significantly associated with MSCs. Gender-stratified analyses revealed that mental health complaints (i.e., depression and/or anxiety) predicted MSCs in men (OR 2.03, 95% CI: 1.18-3.50), but not in women. Current smoking (OR 1.43, 95% CI: 1.16-1.76) and poor self-perceived health (OR 1.90, 95% CI: 1.34-2.71) showed slightly higher odds ratios among women than men, but the gender differences were not significant.

The present study demonstrates that several negative health determinants are predicting subsequent MSCs. However, the examined risk factors could not explain the higher prevalence of MSCs in women.

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