



## Risk factors for upper-extremity musculoskeletal disorders in the working population.

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**OBJECTIVE:** To assess the relative importance of personal and occupational risk factors for upper-extremity musculoskeletal disorders in the working population.

**METHODS:** A total of 3,710 workers (58% men) participating in a surveillance program of musculoskeletal disorders in a French region in 2002-2005 were included. Upper-extremity musculoskeletal disorders were diagnosed by 83 trained occupational physicians performing a standardized physical examination. Personal factors and work exposure were assessed by a self-administered questionnaire. Statistical associations between musculoskeletal disorders, personal, and occupational factors were analyzed using logistic regression modeling.

**RESULTS:** A total of 472 workers experienced at least 1 upper-extremity musculoskeletal disorder. The risk of upper-extremity musculoskeletal disorders increased with age for both sexes ( $P < 0.001$ , odds ratio [OR]  $< \text{or} = 4.9$  in men and  $< \text{or} = 5.0$  in women), and in cases of prior history of upper-extremity musculoskeletal disorders (OR 3.1 and 5.0, respectively,  $P < 0.001$ ). In men, upper-extremity musculoskeletal disorders were associated with obesity (OR 2.2,  $P = 0.014$ ), high level of physical demand (OR 2.0,  $P < 0.001$ ), high repetitiveness of the task (OR 1.5,  $P = 0.027$ ), postures with the arms at or above shoulder level (OR 1.7,  $P = 0.009$ ) or with full elbow flexion (OR 1.6,  $P = 0.006$ ), and high psychological demand (OR 1.5,  $P = 0.005$ ). In women, upper-extremity musculoskeletal disorders were associated with diabetes mellitus (OR 4.9,  $P = 0.001$ ), postures with extreme wrist bending (OR 2.0,  $P < 0.001$ ), use of vibrating hand tools (OR 2.2,  $P = 0.025$ ), and low level of decision authority (OR 1.4,  $P = 0.042$ ).

**CONCLUSION:** Personal and work-related physical and psychosocial factors were strongly associated with clinically diagnosed upper-extremity musculoskeletal disorders.

Résumé en anglais

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## Liens

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