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# HEAVY MANUAL WORK, VIBRATION EXPOSURE AND DUPUYTREN'S DISEASE? RESULTS FROM A SURVEILLANCE PROGRAM OF MUSCULOSKELETAL DISORDERS

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**Objectives** In the debate about occupational factors in Dupuytren's disease, the study aimed by using data from surveillance program of musculoskeletal disorders to describe prevalence of the disease in men and its relation to work exposure, especially to distinguish heavy manual work with and without using of vibrating tool.

**Methods** A cross-sectional study was conducted in France between 2002 and 2004. Dupuytren's disease was clinically diagnosed by one of the 83 occupational physicians. Exposure regarding work status and occupational risk factors was assessed with a self-administered questionnaire, and was categorised into vibration exposure (defined as use of vibrating tools  $\geq 2$  h/day), heavy manual work without vibration exposure (defined as use of hand tools  $\geq 2$  h/day (use of vibrating tools  $< 2$  h/day excluded) and Borg scale  $\geq 15/20$ ) and else. Bivariate and multivariate association using logistic models were described among men and also for those with over 10 years at the same job.

**Results** Among the 2161 men, 1.3% (n=27) suffered from Dupuytren's disease with mean age at 47.1 $\pm$ 6.7 years. Heavy manual work without vibration exposure was significantly associated with the disease (OR 3.9(1.3;11.5) adjusted on age and diabetes), such as use of vibrating tools (adjusted OR 5.1(2.1;12.2)). These associations remained significant among subjects with over 10 years at the same job with an increase of adjusted OR, 6.1(1.5;25.0) and 10.7(3.4;34.6) respectively). Separate analyses of occupational exposure showed a dose-response relationship.

**Conclusions** Despite a limited number of cases, occupational exposure was associated with Dupuytren's disease, including heavy manual work without vibration exposure.