

Occupational and Personal Risk Factors for Musculo-Skeletal Disorders In Fertilizer Plant Workers

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Summary

The aim of this study was to evaluate the impact of some personal and work-related risk factors for the occurrence and development of MSDs as well as to assess the prevalence and relative risk by means of odds ratio and 95% confidence interval.

Subjects of this comprehensive cross-sectional study were 921 workers and employees from the four main departments of the plant. The following complex of methods was applied: personal anamnesis, occupational history, physical examination, clinical laboratory testing, anthropometric examination, conventional radiography and statistical method.

Results. Age is the first risk factor, discussed by authors. The data showed highly significant differences in the prevalence of MSDs - 9.48% in the risk group versus 1.97% in the reference group (OR 5.21, 95% CI 2.42-11.61). Gender is the second risk factor strongly related to MSDs in combination with age. The prevalence of MSDs is higher for women over 40 years than for men over 40 years: OR is 6.43 with 95% CI 1.73-28.23 versus OR 4.66 with 95% CI 1.80-12.77). Obesity is the third risk factor for MSDs. The data showed highly significant differences in the prevalence of MSDs - 7.03% in risk group versus 3.08% in reference group, OR 2.38 with 95%CI 1.10-5.30. Smoking for more than 20 years also increases the risk of developing MSDs. At this stage of the research, there is no proof of the impact of hypercholesterolemia, non-occupational or work-related strain on the development of MSDs.

The authors' conclusion is that these results may support programs for health promotion and health prevention

Key words: musculo-skeletal disorders, risk factors, age, gender, obesity, smoking, work-related and non-occupational strain

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