Asphalt paving workers are exposed to ultrafine particles originating mainly from asphalt paving activities (asphalt fumes) and traffic exhaust. Studies hav ereported asphalt paving workers have more respiratory symptoms, airflow limitation and signs of airway inflammation than other heavy construction workers, and the mortality from respiratory diseases may be higher.

Objectives High resolution computed tomography (HRCT) is useful in assessing the presence of parenchymal abnormalities in the lung. The aim of this study was to explore the distribution of different HRCT findings in a group of asphalt paving workers previously examined with lung function tests.

Methods All the asphalt pavers previously examined with lung function tests in 2005 (n = 76) were invited to do HRCT of their lungs. They were contacted by telephone and then received a formal request in writing. Of the group, 53 workers accepted doing the HRCT and being part of the study.

Thin-section CT images were obtained in the supine position during breath-holding and deep inspiration at 120–140 kV, with 1 or 1.25-mm section thickness at 10-mm intervals.

The images were reviewed separately and in random order by two chest radiologists (with 18 and 12 years of experience, respectively). The observers were blinded to clinical information and histological diagnosis.

Results The distribution of radiographic abnormalities in the CT scans of lungs of asphalt workers was comparable to the distribution in the normal population of the same age.

Results The study group was fairly small. We could not detect radiographic abnormalities of the lung associated with asphalt work.

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83 INTERNATIONAL VARIATION IN MUSCULOSKELETAL SICKNESS ABSENCE: FINDINGS FROM THE CUPID STUDY

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Objectives To quantify the variation in rates of absence for musculoskeletal pain across 47 occupational groups (mostly nurses and office workers) from 18 countries, and to explore personal and group-level risk factors that might explain observed differences.

Methods A standardised questionnaire was used to obtain information about musculoskeletal pain, sickness absence and possible risk factors from 12,416 workers (92 to 1017 per occupational group). In addition, group-level data on socioeconomic variables such as sick pay and unemployment rates were assembled by members of the study team in each country. Associations of sickness absence with risk factors were examined by Poisson regression.

Results Overall, there were more than 30-fold differences between occupational groups in the 12-month prevalence of prolonged musculoskeletal sickness absence, and even among office workers carrying out similar occupational tasks, the variation was more than ten-fold. Individual-level risk factors included older age, lower educational level, tendency to somatise, physical loading at work and prolonged absence for non-musculoskeletal illness. However, these explained little of the variation between occupational groups. After adjustment for individual characteristics, prolonged musculoskeletal absence was more frequent in groups with greater time pressure at work, lower job control, and more adverse beliefs about the work-relatedness of musculoskeletal disorders.

Conclusions Musculoskeletal sickness absence might be reduced by eliminating excessive time pressures in work, maximising employees' responsibility and control, and providing flexibility of duties for those with disabling symptoms. Care should be taken not to overstate work as a cause of musculoskeletal injury.

84 RISK FACTORS OF ACUTE AND SUBACUTE LOW BACK PAIN IN A COHORT OF FRENCH LOIRE VALLEY REGION'S WORKERS

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Objectives In recent years, emphasis was placed on the determinants of chronic low back pain (LBP) in a tertiary prevention perspective. However, prevention of acute and subacute LBP should remain a goal of primary prevention in the workplace. The objective of this study was to investigate the risk factors for common acute and subacute LBP related to the individual characteristics or occupational exposure factors in a large sample of workers.

Methods This longitudinal study assessed the main biomechanical, psychological and organisational risk factors for LBP, by self-administered questionnaire, between 2002 and 2005, among a sample of 3,710 workers. A total of 2,332 of them were followed-up between 2007 and 2009 for the occupational becoming, health and working conditions. The risk modelling of different durations of LBP was performed using a multinomial logit model with a variable response into four categories: no LBP, short acute LBP (< 8 days during the preceding 12 months), prolonged acute LBP (8 to 30 days during the preceding 12 months) and subacute LBP (> 30 days during the preceding 12 months, but not daily). Individuals reporting chronic LBP were excluded. In addition, analyses were stratified by gender.

Results The prevalence of LBP was 52.4% among men and 51.2% among women and decreased according to the duration of LBP regardless of gender (24.8% of short acute LBP and 11.6% of subacute LBP). The combination of a high perceived physical exertion with frequent bending of the trunk was a risk factor for LBP for both genders. In addition, whole-body vibration and low social support were risk factors in men and high tall in women.

Conclusions The impact of biomechanical factors seems to be more important than organisational and psychosocial factors. analyses failed to identify risk factors specifically related to the duration of LBP.

85 WHAT EXPECTATIONS OF PERSISTENT OR RECURRENT PROBLEMS ARE HELD AMONG PEOPLE WITH MUSCULOSKELETAL SYMPTOMS AND WHAT INFLUENCES THESE EXPECTATIONS?

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Objectives To: 1) investigate expectations about future problems related to musculoskeletal pain among a cohort of workers; 2) to investigate the association between expectations at baseline