

Pre-employment examinations

Pre-employment health examinations (PEHEs) may be effective if they focus on the health risks of particular jobs, according to this updated Cochrane systematic review of 11 studies. But there is only low-quality and inconsistent evidence that they can reduce sickness absence or reduce work-related illness or injury as a result of either denying employment to the job applicant or mitigating job risks through workplace adjustments. There is: low-quality evidence that a general PEHE did not reduce sickness absence in non-hazardous light-duty work; very low-quality evidence that a job-specific PEHE of nursing staff, in which 6% of candidates were rejected, significantly reduced the number of musculoskeletal injuries; and inconsistent evidence that job-specific PEHEs reduced future musculoskeletal conditions compared to general PEHEs. There is low-quality evidence that including a histamine bronchial challenge test in a PEHE significantly reduced occupational asthma incidence among aluminium plant workers; but the applicant-rejection rate rose from 20% to 35% after the test was introduced. Workers given work restrictions or adjustments following a PEHE had similar injury rates over three years as those who did not need adjustments or restrictions (very low-quality evidence).

- *Cochrane Database of Systematic Reviews 2016; 1: CD008881. doi: 10.1002/14651858.CD008881.pub2*
- <http://onlinelibrary.wiley.com/doi/10.1002/14651858.CD008881.pub2/abstract>

Reducing sedentary behaviour

Workplace interventions can be successful in increasing physical activity and reducing sedentary behaviour, this systematic review of 40 studies finds. There is strong evidence that treadmill workstations can reduce overall (work plus leisure-time) sedentary behaviour, and moderate evidence that they can increase physical activity both at work and overall. There is moderate evidence that sit–stand workstations reduce sedentary behaviour and increase physical activity at work. There is moderate evidence that promoting the use of stairs can increase physical activity at work, but insufficient evidence that it has a positive impact on sedentary behaviour, overall physical activity, work performance, or physiological and metabolic outcomes. There is moderate evidence that personalised behavioural interventions – eg personal goal setting, self-monitoring (using pedometers and logbooks), online feedback, coaching, and motivational and information campaigns – improve overall physical activity, but conflicting evidence that they have an effect on sedentary behaviour, physical activity at work, work performance, physiological or metabolic outcomes. Most studies lacked long-term follow-up.

- *Scandinavian Journal of Work, Environment & Health 2016; online first: doi:10.5271/sjweh.3544*
- http://www.sjweh.fi/show_abstract.php?abstract_id=3544

Carpal tunnel post-operative rehab

There is limited and low-quality evidence on the safety and effectiveness of different rehabilitation interventions following carpal tunnel release (CTR) surgery, according to this updated Cochrane systematic review. Six of the 22 included studies addressed return to work (RTW). Interventions included wrist immobilisation, dressings, exercise, controlled cold therapy, ice therapy, multi-modal hand rehabilitation, laser therapy, electrical modalities, scar desensitisation and arnica. There were only small and non-significant differences between treatments for most of the outcomes, including RTW. People who have undergone CTR need to be informed about the limited evidence for the effectiveness of rehabilitation interventions.

- *Cochrane Database of Systematic Reviews 2016; 2: CD004158. doi: 10.1002/14651858.CD004158.pub3*
- <http://www.cochranelibrary.com/enhanced/doi/10.1002/14651858.CD004158.pub3>

Low-back pain prevention

This systematic review and meta-analyses of 21 randomised controlled trials covering more than 30,000 participants finds that exercise, either alone or combined with education, can reduce the risk of non-specific low-back pain (LBP). There is moderate-quality evidence that exercise combined with education reduces the risk of an LBP episode in the short term (less than 12 months) by nearly half (relative risk (RR) = 0.55; 95% confidence interval (CI) 0.41–0.74), and low-quality evidence that it reduces risk in the longer term (over 12 months) (RR = 0.73; CI 0.55–0.96). There is low-quality evidence that exercise alone reduces the risk of an LBP episode in the short term (RR = 0.65; CI 0.50–0.86), and very low-quality evidence that it reduces the risk of sickness absence in the long term (RR = 0.22; CI 0.06–0.76). Education, back belts and shoe inserts did not reduce LBP risk.

- *JAMA Internal Medicine* 2016; 176(2): 199–208. doi:10.1001/jamainternmed.2015.7431
- <http://archinte.jamanetwork.com/article.aspx?articleid=2481158>

HIV status has no impact on work ability

There was no significant difference in work ability (WA) between workers who were either HIV-positive or HIV-negative, this Dutch cohort study found. It included 264 HIV-positive and 359 HIV-negative people aged 45–65 in paid work. WA was assessed by self-administered questionnaire on a scale of 0 to 10; a score below six indicated insufficient WA. Nine per cent of HIV-positive workers had insufficient WA, compared with 7% of HIV-negative individuals – the difference was not significant. HIV-positive individuals were declared partly unfit for work twice as often (6%) as those who were HIV-negative (3%) albeit with very low prevalences ($p = 0.02$). Several factors were associated with low WA – including low educational level, working fewer hours, being partly unfit for work, experiencing a high need for recovery after work, and reporting depressive symptoms – but these were independent of HIV status. Experiencing work-related stigma was also associated with insufficient work ability among HIV-positive participants – 29% of those experiencing stigma had insufficient WA compared with 8% of those not experiencing it ($p = 0.01$).

- *International Archives of Occupational & Environmental Health* 2016; online first: doi: 10.1007/s00420-015-1108-0
- <http://link.springer.com/article/10.1007%2Fs00420-015-1108-0>

Social capital protects against sickness absence

High social capital – defined here as ‘a characteristic of social structures that encompasses high levels of trust, reciprocity and cohesion’ – at work reduces the risk of taking long-term sickness absence (LTSA) of at least three weeks, according to this Danish cohort study. However, the effect applies only to those of high occupational grade. A total of 3,075 employees were selected as part of the Copenhagen Psychosocial Questionnaire, version II study. Psychosocial questions on trust, justice and collaboration combined to give a score of workplace social capital (WSC). Mean WSC was 62.5 (standard deviation (sd) = 16.4) out of a possible 100. During the 12-month follow-up, 5.8% of participants took at least one episode of LTSA. A one-sd higher WSC significantly reduced the chance of LTSA among high-occupational-grade non-manual workers (hazard ratio (HR) = 0.47; CI 0.23–0.96). The effect was less pronounced among intermediate-grade non-manual workers (HR = 0.68; CI 0.47–1.00) and there were no significant differences for low-grade non-manual, skilled manual or semi-skilled and unskilled manual workers. Workers of lower occupational grade also had lower WSC scores than those of higher grade, suggesting that ‘lower grade workers often did not experience the amount of WSC that is necessary to protect health’.

- *European Journal of Public Health* 2016; online first: doi: 10.1093/eurpub/ckv244
- <http://eurpub.oxfordjournals.org/content/early/2016/01/27/eurpub.ckv244#abstract-1>

Job insecurity predicts depressive symptoms

Job security and unemployment are both significantly associated with a higher risk of depressive symptoms, this systematic review of 15 studies and meta-analysis reveals. Compared with people in secure employment, the risk of depression is 29% higher for workers in insecure jobs, and 19% higher for unemployed people. The meta-analysis revealed a positive relationship between job insecurity and depression (odds ratio (OR) = 1.29; CI 1.06–1.57) but a significant effect was observed in only three out of six studies. Unemployment was associated with depression in 11 out of 14 studies (OR = 1.19; CI 1.11–1.28).

- *International Archives of Occupational & Environmental Health* 2016; online first: doi: 10.1007/s00420-015-1107-1
- <http://link.springer.com/article/10.1007%2Fs00420-015-1107-1>

Does poor mental health predict absence?

Previous research suggests a strong relationship between poor mental health and sickness absence; however, evidence from this large-scale national population-based study suggests the association may have been overestimated owing to a failure in earlier studies to control for confounding factors. Longitudinal data were obtained from the Household, Income and Labour Dynamics in Australia survey. It covered 13,622 employees, re-interviewed annually in order to assess mental health and self-reported absence. Mental health scores were calculated using a subscale of the Short-Form 36 Health Survey to assess frequency of anxiety symptoms and mood disturbance in the previous four weeks. Lower scores were associated with greater absence, but the effects were relatively small and only for those with more severe symptoms. After controlling for confounding factors – such as employment status, age, marital/relationship status, educational attainment and physical health – as well as unobserved heterogeneity, and focusing on within-person changes, only women with severe depressive symptoms (mental health score <53 out of 100) took more sickness absence (incidence rate ratio (IRR) = 1.10; CI 1.02–1.19). Absence was also slightly higher among men with mental health scores of: < 53 (IRR = 1.13; CI 1.03–1.23); 53–60 (IRR = 1.14; CI 1.05–1.24); and 61–75 (IRR = 1.09; CI 1.01–1.16).

- *Scandinavian Journal of Work Environment and Health* 2016; online first: doi: 10.5271/sjweh.3553
- http://www.sjweh.fi/show_abstract.php?abstract_id=3553

Reproductive risks for hairdressers and cosmetologists

Hairdressers and cosmetologists (H&Cs) are at significantly raised risk of certain female reproductive disorders, this meta-analysis of 19 studies finds. Six studies – five using questionnaires and one registry-based – examined the risk of infertility and found a significantly elevated odds ratio (OR) of 1.15 (CI 1.03–1.28) among H&Cs. Meta-analysis of eight studies found a slight but significant raised risk of pre-term delivery (OR = 1.04; CI 1.00–1.07), which remained when restricted to the five registry-based studies. An increased risk of foetal death was found from nine papers (OR = 1.14, CI 1.04–1.2), but was not significant when the analysis was restricted to the three registry-based studies. The pooled risk estimate of small-for-gestational-age babies (seven studies) showed no significant increase among H&Cs. No increased risk was found for low birth weight (eight studies). Possible methodological bias inherent in the analysed studies included the use of different reference groups, whereas ideally these should have been women with similar socioeconomic backgrounds and working conditions to the H&Cs.

- *International Archives of Occupational & Environmental Health* 2016; online first: doi: 10.1007/s00420-016-1112-z
- <http://link.springer.com/article/10.1007%2Fs00420-016-1112-z>

Mental health interventions at work

There is moderate-quality evidence that mental health interventions can improve workplace outcomes, this best-evidence synthesis of systematic review finds. Interventions aimed at improving mental and physical health are most effective, along with multicomponent mental health/psychosocial interventions, and 'exposure in vivo' – a component of cognitive-behavioural interventions where the individual is exposed to their fears – for particular anxiety disorders. However, only four of the 14 included reviews found positive evidence that interventions improved workplace outcomes, while six found limited evidence, and four found inconclusive or no evidence.

- *International Journal of Occupational & Environmental Medicine* 2016; 7: 1–14
- <http://www.thejoem.com/ijoem/index.php/ijoem/article/view/607>