

No evidence for EMF link to motor neuron or Alzheimer disease

A meta-analysis of 42 included papers finds that the available evidence does not support a causal link between occupational exposure to electromagnetic fields (EMF) and motor-neuron disease, Alzheimer disease and other neurodegenerative diseases, despite evidence of positive associations. There was considerable heterogeneity in the risk estimates and evidence of publication bias in a proportion of papers showing positive associations.

- *Journal of Occupational and Environmental Medicine* 2013; 55(2): 135–146.
- http://journals.lww.com/joem/Fulltext/2013/02000/Occupational_Exposure_to_Extremely_Low_Frequency.6.aspx

GPs' job demands predict stress

A 10-year prospective cohort study of 886 public sector doctors in Finland found that job demands predicted psychological distress in GPs but not in specialists. There were no significant differences between specialists and GPs in symptoms of distress, sleep problems, job control or effort–reward imbalance. GPs reported significantly higher job demands compared with specialists and this difference widened slightly over time (despite a small decline overall in both groups). There was a significant interaction effect between job demands and psychological distress for GPs (regression coefficient = 0.15; 95% confidence interval (CI) 0.11–0.18; $p = 0.005$) but not for specialists (RC = 0.04; CI -0.03–0.10). The authors note that higher work demands associated with primary care, and GPs being more likely than specialists to work alone may explain the differences.

- *Occupational and Environmental Medicine* 2013; online first: doi: 10.1136/oemed-2012-100996.
- <http://oem.bmj.com/content/early/2013/01/14/oemed-2012-100996.abstract>

Return to work

Good organisational climate combined with fair work commitment – ie neither under- nor over-committed to work, with fair demands and responsibilities – is predictive of early return to work (RTW) in women following sickness absence (adjusted relative risk = 2.05; 95% CI 1.32–3.18), this prospective cohort study from Sweden finds. However, it is not predictive of RTW in men (RR 0.99; CI 0.56–1.75). The study population comprised 1,494 women and 791 men, aged 19–64. Organisational climate and work commitment were measured by questionnaire. Forty-three per cent of women and 45% of men had an 'early' RTW (14–31 days); whereas 27% of women and 25% of men had a 'late' return (more than 90 days' absence). Good organisational climate and fair work commitment also predicted a lower risk of late RTW in women (RR = 0.42; CI 0.28–0.64), but not in men (RR 1.16; CI 0.60–2.21).

- *Journal of Occupational and Environmental Medicine* 2013; 55(2): 121–127.
- http://journals.lww.com/joem/Abstract/2013/02000/The_Combination_of_Work_Organizational_Climate_and.4.aspx

Pregnancy outcomes and work activity

This updated evidence review and meta-analysis provides more precise estimates of the risks of preterm delivery (PTD), low birth weight, small for gestational age (SGA), pre-eclampsia and gestational hypertension associated with occupational exposures. Updating a 2007 review, this latest study (33 papers added to the original 53) indicates that any excess

risks are even smaller than previously thought. For PTD, the meta-estimates for relative risk were 1.23 (95% confidence interval 1.13–1.34) for long working hours; 1.22 (CI 1.12–1.33) for prolonged standing; and 1.14 (CI 1.01–1.30) for shiftwork. For SGA, the relative risks were 1.04 (CI 0.94–1.16), 1.07 (CI 0.94–1.22), and 1.01 (CI 0.92–1.10), respectively. The exposure measures used in studies on lifting and physical workload were too heterogeneous to allow a meta-analysis but the reported relative risks were small (eg for PTD, median RR for lifting = 1.12, and for physical workload = 1.20). The evidence base was insufficient to produce risk estimates for pre-eclampsia and gestational hypertension. The review was funded by NHS Health at Work and the RCP Health and Work Development Unit.

- *Occupational and Environmental Medicine* 2013; online first: doi: 10.1136/oemed-2012-101032.
- <http://oem.bmj.com/content/early/2013/01/22/oemed-2012-101032.abstract>

Nightwork link to ovarian cancer, but no dose effect

This US study finds a slightly raised risk of ovarian cancer associated with nightwork and investigated the impact of 'chronotype' (whether they preferred being active in the morning or evening) on cancer risk. A total of 1,490 women diagnosed with a primary invasive (n = 1,101) or borderline (n = 389) epithelial ovarian tumour were included, alongside 1,832 controls drawn from the local population. Each was interviewed about their employment history, demographic and lifestyle characteristics, medical, reproductive and contraceptive history. Specific information was sought on working hours, shiftwork and chronotype. Ever working nights was associated with a higher risk of invasive epithelial ovarian cancer (odds ratio = 1.24; 95% CI 1.04–1.49) and of borderline epithelial ovarian tumour (OR = 1.48; CI 1.15–1.90) but there was no significant dose–response relationship. Self-classified 'morning type' individuals had slightly raised risk of invasive and borderline tumours compared with 'evening type' individuals but the differential effect was not significant.

- *Occupational and Environmental Medicine* 2013; online first: doi: 10.1136/oemed-2012-101146.
- <http://oem.bmj.com/content/early/2013/01/22/oemed-2012-101146.abstract>

Depression leads to poor employment outcomes

A seven-year longitudinal study of 5,785 employed people (aged 40–50 years) in Denmark found that those with depressive symptoms coupled with high physical work demands were more likely to take sick leave (odds ratio = 2.97; 95% CI 2.19–4.03), be unemployed (OR = 3.09; CI 2.21–4.31), and be work disabled (OR = 3.39; CI 2.17–5.28), but were not at significant increased risk of job change. However, the combined effect did not exceed the single effects and there was no interaction effect; in other words the disabling effect of depressive symptoms occurs irrespective of work demands. 'Action against employment consequences of depressive symptoms should not be restricted to areas of high work stress,' conclude the authors.

- *European Journal of Public Health* 2013; online first: doi: 10.1093/eurpub/ckt011.
- <http://eurpub.oxfordjournals.org/content/early/2013/02/01/eurpub.ckt011.abstract>

Workplace health promotion

This systematic review examined evidence on the economic impact of workplace health promotion programmes undertaken in the US (where healthcare costs are usually borne by

the employer through insurance). It found limited and inconsistent evidence of economic benefits and a need for higher quality research to provide useful evidence on return on investment. Economic outcomes included healthcare utilisation (eg, medical and pharmaceutical claims) and work productivity loss (eg, absenteeism, presenteeism and disability claims). Of the included studies, 32 papers showed one or more favourable results, and 12 reported unfavourable, mixed or null results. Methodological quality was often poor, with only 10 of the 44 papers assessed as providing provide adequate quality evidence.

- *Journal of Occupational & Environmental Medicine* 2013; 55(2): 209–222.
- http://journals.lww.com/joem/Abstract/2013/02000/A_Systematic_Review_of_the_Evidence_Concerning_the.15.aspx

Work stress and cancer

This meta-analysis of 12 European cohort studies – from six countries including the UK – did not find a link between work stress and either colorectal, lung, breast or prostate cancers. The study covered 116,056 men and women aged 17–70, free from cancer at baseline and followed up for a median of 12 years. Psychosocial work stress – defined as ‘job strain’, which combined high demands and low control at work – was assessed using the Job Content Questionnaire and Demand-Control Questionnaire. Cancer events were taken from national registries, hospital registries and/or employer medical registers. The analysis took account of potential confounders, such as tobacco and alcohol intake, socioeconomic position and body mass index. Five per cent of the study population developed some form of cancer during follow-up (5,765 cases).

- *British Medical Journal* 2013; 346: f165. doi: 10.1136/bmj.f165.
- <http://www.bmj.com/content/346/bmj.f165>

Probiotics to prevent common cold

Probiotics (live microorganisms taken as health supplements) have previously been suggested as having a protective effect against upper respiratory tract infection – or common cold – a major cause of short-term sickness absence. This systematic review identified 10 randomised controlled trials, reported in seven articles meeting inclusion criteria (total of 2,894 participants). Evidence quality was high. Probiotics did not have a statistically significant effect on preventing common cold (relative risk = 0.92; 95% CI 0.85–1.00), though the authors do not rule out a ‘borderline preventive effect’. There were no reported side effects.

- *Korean Journal of Family Medicine*; 2013; 34: 2–10.
- <http://synapse.koreamed.org/DOIx.php?id=10.4082/kjfm.2013.34.1.2>

No gain from OH obesity programme

An OH guideline-based intervention to tackle overweight and obesity was no more effective than usual care, according to this randomised controlled trial in the Netherlands. The guideline based care was delivered by occupational physicians and comprised: advice to employers on how to address obesogenic work environment factors (bike and shower facilities, restaurant pricing etc); individual risk assessment and face-to-face behavioural counselling sessions for employees; evaluation and maintenance of the employer and employee interventions. Usual care consisted of health risk assessment, anthropometric measurements and health advice. A total of 523 employees and 16 occupational physicians

were randomised either to the intervention or usual care. Waist circumference, body weight, body mass index, systolic and diastolic blood pressure, total serum cholesterol and quality of life were measured at six, 12 and 18 months. There were no significant differences between the intervention and usual care group overall in any of the measured outcomes.

- *Scandinavian Journal of Work, Environment and Health* 2013; online first: doi: 10.5271/sjweh.3341.
- http://www.sjweh.fi/show_abstract.php?abstract_id=3341

Telephone-based physio

Telephone-based NHS physiotherapy assessment and advisory services ('PhysioDirect' – PD) are at least as clinically effective and cost effective as waiting-list face-to-face care, according to this randomised controlled trial. PD patients telephone the physiotherapist for an initial assessment and are triaged as appropriate: advice on self-management and exercise; face-to-face consultation; or referred back to their GP or other health professional. A total of 1,513 adult musculoskeletal disorder (MSD) patients were randomly assigned to four new PD services. 'Usual care' patients (n = 743) were put on a waiting list for face-to-face assessment and treatment. Outcomes were assessed at six months using the physical component score (PCS) of the 36-item Short Form Questionnaire. Almost half (47%) of the PD patients were managed entirely by telephone. Those in the PD group had significantly fewer consultations overall (2.87) compared with usual care (3.25 – incidence rate ratio = 0.87; 95% CI 0.80–0.94) and were more likely to receive at least one consultation within six weeks (adjusted odds ratio = 4.49; 95% CI 3.68–5.49); p < 0.001). There were no significant differences in the primary outcomes (PCS = 43.50 for PD and 44.18 for usual care; p = 0.99). Patient satisfaction was slightly lower with PD.

- *Health Technology Assessment* 2013; 17(2). doi: 10.3310/hta17020.
- <http://www.hta.ac.uk/fullmono/mon1702.pdf>