

35 healthy lifestyle abstracts

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(Betts, Richardson et al. 2014; Beute and de Kort 2014; Bodenmann, Hilpert et al. 2014; Bradbury, Appleby et al. 2014; Cooney, Dwan et al. 2014; Croft, Schmader et al. 2014; Cuzick, Thorat et al. 2014; Dhurandhar, Dawson et al. 2014; Graham and Crown 2014; Harris, Barnier et al. 2014; Hill and Turiano 2014; Jackson and Hu 2014; Key, Appleby et al. 2014; Kostis and Dobrzynski 2014; Kühn and Gallinat 2014; Lee, Talwar et al. 2014; Lilienfeld, Lutzman et al. 2014; Limb 2014; Littlejohns, Henley et al. 2014; Lumley, Keefe et al. 2014; Lundin 2014; Mavilidi, Hoogerheide et al. 2014; Mozaffarian, Fahimi et al. 2014; Natour, Cazotti et al. 2014; Niles, Haltom et al. 2014; Peeters, van Gellecum et al. 2014; Porzig-Drummond, Stevenson et al. 2014; Roberts, Little et al. 2014; Shafer, Jensen et al. 2014; Soret, Mejia et al. 2014; Stolarski, Matthews et al. 2014; Ul-Haq, Mackay et al. 2014; van der Noordt, IJzelenberg et al. 2014; Wang, Ouyang et al. 2014; Weiler, Allardyce et al. 2014)

Betts, J. A., J. D. Richardson, et al. (2014). **"The causal role of breakfast in energy balance and health: A randomized controlled trial in lean adults."** *The American Journal of Clinical Nutrition* 100(2): 539-547.

<http://ajcn.nutrition.org/content/100/2/539.abstract>

(Free full text available) Background: Popular beliefs that breakfast is the most important meal of the day are grounded in cross-sectional observations that link breakfast to health, the causal nature of which remains to be explored under real-life conditions. Objective: The aim was to conduct a randomized controlled trial examining causal links between breakfast habits and all components of energy balance in free-living humans. Design: The Bath Breakfast Project is a randomized controlled trial with repeated-measures at baseline and follow-up in a cohort in southwest England aged 21–60 y with dual-energy X-ray absorptiometry-derived fat mass indexes ≤ 11 kg/m² in women (n = 21) and ≤ 7.5 kg/m² in men (n = 12). Components of energy balance (resting metabolic rate, physical activity thermogenesis, energy intake) and 24-h glycemic responses were measured under free-living conditions with random allocation to daily breakfast (≥ 700 kcal before 1100) or extended fasting (0 kcal until 1200) for 6 wk, with baseline and follow-up measures of health markers (eg, hematology/biopsies). Results: Contrary to popular belief, there was no metabolic adaptation to breakfast (eg, resting metabolic rate stable within 11 kcal/d), with limited subsequent suppression of appetite (energy intake remained 539 kcal/d greater than after fasting; 95% CI: 157, 920 kcal/d). Rather, physical activity thermogenesis was markedly higher with breakfast than with fasting (442 kcal/d; 95% CI: 34, 851 kcal/d). Body mass and adiposity did not differ between treatments at baseline or follow-up and neither did adipose tissue glucose uptake or systemic indexes of cardiovascular health. Continuously measured glycemia was more variable during the afternoon and evening with fasting than with breakfast by the final week of the intervention (CV: 3.9%; 95% CI: 0.1%, 7.8%). Conclusions: Daily breakfast is causally linked to higher physical activity thermogenesis in lean adults, with greater overall dietary energy intake but no change in resting metabolism. Cardiovascular health indexes were unaffected by either of the treatments, but breakfast maintained more stable afternoon and evening glycemia than did fasting. This trial was registered at <http://www.isrctn.org> as ISRCTN31521726.

Beute, F. and Y. A. W. de Kort (2014). **"Salutogenic effects of the environment: Review of health protective effects of nature and daylight."** *Applied Psychology: Health and Well-Being* 6(1): 67-95. <http://dx.doi.org/10.1111/aphw.12019>

Both nature and daylight have been found to positively influence health. These findings were, however, found in two separate research domains. This paper presents an overview of effects found for daylight and nature on health and the health-related concepts stress, mood, and executive functioning and self-regulation. Because of the overlap in effects found and the co-occurrence of both phenomena, the paper points to the need to consider daylight factors when investigating effects of nature and vice versa. Furthermore, the existence of possibly shared underlying mechanisms is discussed and the need to unify the research paradigms and dependent variables used between the two research fields. Last, in view of the beneficial effects of both phenomena on health, our objective is to raise awareness amongst the general public, designers, and health practitioners to use these naturally available phenomena to their full potential.

Bodenmann, G., P. Hilpert, et al. (2014). **"Enhancement of couples' communication and dyadic coping by a self-directed approach: A randomized controlled trial."** *J Consult Clin Psychol* 82(4): 580-591.

<http://www.ncbi.nlm.nih.gov/pubmed/24660673>

Although prevention of relationship distress and dissolution has potential to strengthen the well-being of partners and any children they are raising, dissemination of prevention programs can be limited because couples face many barriers to in-person participation. An alternative strategy, providing couples with an instructional DVD, is tested in the present study, in which 330 Caucasian couples (N = 660 participants; mean age: men 41.4 years, women 40.0 years) were randomly assigned to a DVD group without any further support, a DVD group with technical telephone coaching, or a wait-list control group. Couples completed questionnaires at pretest, posttest, and 3 and 6 months after completion of the intervention. Self-report measures of dyadic coping, communication quality, ineffective arguing, and relationship satisfaction were used to test whether the intervention groups improved in comparison with the control group. Women in both intervention groups increased in dyadic coping, reduced conflict behavior, and were more satisfied with their relationship 6 months after the intervention. Effects for men were mixed. Participants with poorer skills reported stronger improvement. Intimate relationships can, within limits, be positively influenced by a self-directed approach. Effective dissemination of principles underlying successful relationships can be facilitated through the use of emerging low-cost tools and technologies.

Bradbury, K. E., P. N. Appleby, et al. (2014). **"Fruit, vegetable, and fiber intake in relation to cancer risk: Findings from the European Prospective Investigation into Cancer and Nutrition (EPIC)."** *The American Journal of Clinical Nutrition* 100(Supplement 1): 394S-398S. http://ajcn.nutrition.org/content/100/Supplement_1/394S.abstract

Fruit, vegetables, and certain components of plant foods, such as fiber, have long been thought to protect against cancer. The European Prospective Investigation into Cancer and Nutrition (EPIC) is a prospective cohort that includes >500,000 participants from 10 European countries and has made a substantial contribution to knowledge in this research area. The purpose of this article is to summarize the findings published thus far from the EPIC study on the associations between fruit, vegetable, or fiber consumption and the risk of cancer at 14 different sites. The risk of cancers of the upper gastrointestinal tract was inversely associated with fruit intake but was not associated with vegetable intake. The risk of colorectal cancer was inversely associated with intakes of total fruit and vegetables and total fiber, and the risk of liver cancer was also inversely associated with the intake of total fiber. The risk of cancer of the lung was inversely associated with fruit intake but was not associated with vegetable intake; this association with fruit intake was restricted to smokers and might be influenced by residual confounding due to smoking. There was a borderline inverse association of fiber intake with breast cancer risk. For the other 9

cancer sites studied (stomach, biliary tract, pancreas, cervix, endometrium, prostate, kidney, bladder, and lymphoma) there were no reported significant associations of risk with intakes of total fruit, vegetables, or fiber.

Cooney, G., K. Dwan, et al. (2014). **"Exercise for depression."** *JAMA* 311(23): 2432-2433.
<http://dx.doi.org/10.1001/jama.2014.4930>

Clinical Question: Is exercise an effective treatment for depression? Bottom Line: Exercise is associated with a greater reduction in depression symptoms compared with no treatment, placebo, or active control interventions, such as relaxation or meditation. However, analysis of high-quality studies alone suggests only small benefits.

Croft, A., T. Schmader, et al. (2014). **"The second shift reflected in the second generation: Do parents' gender roles at home predict children's aspirations?"** *Psychological Science* 25(7): 1418-1428.
<http://pss.sagepub.com/content/25/7/1418.abstract>

Gender inequality at home continues to constrain gender equality at work. How do the gender disparities in domestic labor that children observe between their parents predict those children's visions for their future roles? The present research examined how parents' behaviors and implicit associations concerning domestic roles, over and above their explicit beliefs, predict their children's future aspirations. Data from 326 children aged 7 to 13 years revealed that mothers' explicit beliefs about domestic gender roles predicted the beliefs held by their children. In addition, when fathers enacted or espoused a more egalitarian distribution of household labor, their daughters in particular expressed a greater interest in working outside the home and having a less stereotypical occupation. Fathers' implicit gender-role associations also uniquely predicted daughters' (but not sons') occupational preferences. These findings suggest that a more balanced division of household labor between parents might promote greater workforce equality in future generations.

Cuzick, J., M. A. Thorat, et al. (2014). **"Estimates of benefits and harms of prophylactic use of aspirin in the general population."** *Annals of Oncology*. <http://annonc.oxfordjournals.org/content/early/2014/07/30/annonc.mdu225.abstract>
(Free full text available) Background Accumulating evidence supports an effect of aspirin in reducing overall cancer incidence and mortality in the general population. We reviewed current data and assessed the benefits and harms of prophylactic use of aspirin in the general population. Methods The effect of aspirin for site-specific cancer incidence and mortality, cardiovascular events was collated from the most recent systematic reviews. Studies identified through systematic Medline search provided data regarding harmful effects of aspirin and baseline rates of harms like gastrointestinal bleeding and peptic ulcer. Results The effects of aspirin on cancer are not apparent until at least 3 years after the start of use, and some benefits are sustained for several years after cessation in long-term users. No differences between low and standard doses of aspirin are observed, but there were no direct comparisons. Higher doses do not appear to confer additional benefit but increase toxicities. Excess bleeding is the most important harm associated with aspirin use, and its risk and fatality rate increases with age. For average-risk individuals aged 50–65 years taking aspirin for 10 years, there would be a relative reduction of between 7% (women) and 9% (men) in the number of cancer, myocardial infarction or stroke events over a 15-year period and an overall 4% relative reduction in all deaths over a 20-year period. Conclusions Prophylactic aspirin use for a minimum of 5 years at doses between 75 and 325 mg/day appears to have favourable benefit-harm profile; longer use is likely to have greater benefits. Further research is needed to determine the optimum dose and duration of use, to identify individuals at increased risk of bleeding, and to test effectiveness of Helicobacter pylori screening-eradication before starting aspirin prophylaxis.

Dhurandhar, E. J., J. Dawson, et al. (2014). **"The effectiveness of breakfast recommendations on weight loss: A randomized controlled trial."** *The American Journal of Clinical Nutrition* 100(2): 507-513.
<http://ajcn.nutrition.org/content/100/2/507.abstract>

Background: Breakfast is associated with lower body weight in observational studies. Public health authorities commonly recommend breakfast consumption to reduce obesity, but the effectiveness of adopting these recommendations for reducing body weight is unknown. Objective: We tested the relative effectiveness of a recommendation to eat or skip breakfast on weight loss in adults trying to lose weight in a free-living setting. Design: We conducted a multisite, 16-wk, 3-parallel-arm randomized controlled trial in otherwise healthy overweight and obese adults [body mass index (in kg/m²) between 25 and 40] aged 20–65 y. Our primary outcome was weight change. We compared weight change in a control group with weight loss in experimental groups told to eat breakfast or to skip breakfast [no breakfast (NB)]. Randomization was stratified by prerandomization breakfast eating habits. A total of 309 participants were randomly assigned. Results: A total of 283 of the 309 participants who were randomly assigned completed the intervention. Treatment assignment did not have a significant effect on weight loss, and there was no interaction between initial breakfast eating status and treatment. Among skippers, mean (\pm SD) baseline weight-, age-, sex-, site-, and race-adjusted weight changes were -0.71 ± 1.16 , -0.76 ± 1.26 , and -0.61 ± 1.18 kg for the control, breakfast, and NB groups, respectively. Among breakfast consumers, mean (\pm SD) baseline weight-, age-, sex-, site-, and race-adjusted weight changes were -0.53 ± 1.16 , -0.59 ± 1.06 , and -0.71 ± 1.17 kg for the control, breakfast, and NB groups, respectively. Self-reported compliance with the recommendation was 93.6% for the breakfast group and 92.4% for the NB group. Conclusions: A recommendation to eat or skip breakfast for weight loss was effective at changing self-reported breakfast eating habits, but contrary to widely espoused views this had no discernable effect on weight loss in free-living adults who were attempting to lose weight. This trial was registered at clinicaltrials.gov as NCT01781780.

Graham, C. and S. Crown (2014). **"Religion and well-being around the world: Social purpose, social time, or social insurance?"** *International Journal Of Wellbeing* 4(1): 1-27.
<http://www.internationaljournalofwellbeing.org/index.php/ijow/article/view/258>

A number of studies find that religious people are happier than non-religious ones. Yet a number of fundamental questions about that relationship remain unanswered. A critical one is the direction of causality: does religion make people happier or are happier people more likely to have faith in something that is beyond their control? We posit that the relationship between religion and wellbeing is mediated by factors ranging from intrinsic purpose, to its social aspects, to its role as an insurance mechanism for people who face great adversity. We explore a number of related questions, using world-wide data from the Gallup World Poll. As these data are cross-section data, we cannot establish causality; we do, however, explore: how or if the relationship between religion and wellbeing varies across the two distinct wellbeing dimensions (hedonic and evaluative); how social externalities mediate the relationship; how the relationship changes as countries and people within them become more prosperous and acquire greater means and agency; and how the relationship between religion and wellbeing varies depending on where respondents are in the wellbeing distribution. We find that the positive relation between religion and evaluative wellbeing is more important for respondents with lower levels of agency, while the positive relation with hedonic wellbeing holds across the board. The social dimension of religion is most important for the least social respondents, while the religiosity component of religion is most important for the happiest respondents, regardless of religious affiliation or service attendance. As such, it seems that the happiest are most likely to seek social purpose in religion, the poorest are most likely to seek social insurance in religion, and the least social are the most likely to seek social time in religion.

Harris, C. B., A. J. Barnier, et al. (2014). **"Couples as socially distributed cognitive systems: Remembering in everyday social and material contexts."** *Memory Studies* 7(3): 285-297. <http://mss.sagepub.com/content/7/3/285.abstract>

In everyday life remembering occurs within social contexts, and theories from a number of disciplines predict cognitive and social benefits of shared remembering. Recent debates have revolved around the possibility that cognition can be distributed across individuals and material resources, as well as across groups of individuals. We review evidence from a maturing program of empirical research in which we adopted the lens of distributed cognition to gain new insights into the ways that remembering might be shared in groups. Across four studies, we examined shared remembering in intimate couples. We studied their collaboration on more simple memory tasks as well as their conversations about shared past experiences. We also asked them about their everyday memory compensation strategies in order to investigate the complex ways that couples may coordinate their material and interpersonal resources. We discuss our research in terms of the costs and benefits of shared remembering, features of the group and features of the remembering task that influence the outcomes of shared remembering, the cognitive and interpersonal functions of shared remembering, and the interaction between social and material resources. More broadly, this interdisciplinary research program suggests the potential for empirical psychology research to contribute to ongoing interdisciplinary discussions of distributed cognition.

Hill, P. L. and N. A. Turiano (2014). **"Purpose in life as a predictor of mortality across adulthood."** *Psychological Science* 25(7): 1482-1486. <http://pss.sagepub.com/content/25/7/1482.abstract>

Having a purpose in life has been cited consistently as an indicator of healthy aging for several reasons, including its potential for reducing mortality risk. In the current study, we sought to extend previous findings by examining whether purpose in life promotes longevity across the adult years, using data from the longitudinal Midlife in the United States (MIDUS) sample. Proportional-hazards models demonstrated that purposeful individuals lived longer than their counterparts did during the 14 years after the baseline assessment, even when controlling for other markers of psychological and affective well-being. Moreover, these longevity benefits did not appear to be conditional on the participants' age, how long they lived during the follow-up period, or whether they had retired from the workforce. In other words, having a purpose in life appears to widely buffer against mortality risk across the adult years.

Jackson, C. L. and F. B. Hu (2014). **"Long-term associations of nut consumption with body weight and obesity."** *The American Journal of Clinical Nutrition* 100(Supplement 1): 408S-411S. http://ajcn.nutrition.org/content/100/Supplement_1/408S.abstract

There is some concern that the high-fat, energy-dense content of nuts may promote weight gain. Nuts, however, are rich in protein and dietary fiber, which are associated with increased satiety. They also contain high amounts of vitamins, minerals, antioxidants, and phytoestrogens that may confer health benefits for cardiovascular disease and type 2 diabetes delay and prevention. Therefore, it is important to determine the association between nut consumption and long-term weight change and disease risk to reach scientific consensus and to make evidence-based public health recommendations. Several cross-sectional analyses have shown an inverse association between higher nut consumption and lower body weight. In addition, several independent prospective studies found that increasing nut consumption was associated with lower weight gain over relatively long periods of time. Moreover, high consumption of nuts (especially walnuts) has been associated with lower diabetes risk. Therefore, regular consumption (approximately one handful daily) of nuts over the long term, as a replacement to less healthful foods, can be incorporated as a component of a healthy diet for the prevention of obesity and type 2 diabetes.

Key, T. J., P. N. Appleby, et al. (2014). **"Cancer in british vegetarians: Updated analyses of 4998 incident cancers in a cohort of 32,491 meat eaters, 8612 fish eaters, 18,298 vegetarians, and 2246 vegans."** *The American Journal of Clinical Nutrition* 100(Supplement 1): 378S-385S. http://ajcn.nutrition.org/content/100/Supplement_1/378S.abstract

Background: Vegetarian diets might affect the risk of cancer. Objective: The objective was to describe cancer incidence in vegetarians and nonvegetarians in a large sample in the United Kingdom. Design: This was a pooled analysis of 2 prospective studies including 61,647 British men and women comprising 32,491 meat eaters, 8612 fish eaters, and 20,544 vegetarians (including 2246 vegans). Cancer incidence was followed through nationwide cancer registries. Cancer risk by vegetarian status was estimated by using multivariate Cox proportional hazards models. Results: After an average follow-up of 14.9 y, there were 4998 incident cancers: 3275 in meat eaters (10.1%), 520 in fish eaters (6.0%), and 1203 in vegetarians (5.9%). There was significant heterogeneity between dietary groups in risks of the following cancers: stomach cancer [RRs (95% CIs) compared with meat eaters: 0.62 (0.27, 1.43) in fish eaters and 0.37 (0.19, 0.69) in vegetarians; P-heterogeneity = 0.006], colorectal cancer [RRs (95% CIs): 0.66 (0.48, 0.92) in fish eaters and 1.03 (0.84, 1.26) in vegetarians; P-heterogeneity = 0.033], cancers of the lymphatic and hematopoietic tissue [RRs (95% CIs): 0.96 (0.70, 1.32) in fish eaters and 0.64 (0.49, 0.84) in vegetarians; P-heterogeneity = 0.005], multiple myeloma [RRs (95% CIs): 0.77 (0.34, 1.76) in fish eaters and 0.23 (0.09, 0.59) in vegetarians; P-heterogeneity = 0.010], and all sites combined [RRs (95% CIs): 0.88 (0.80, 0.97) in fish eaters and 0.88 (0.82, 0.95) in vegetarians; P-heterogeneity = 0.0007]. Conclusion: In this British population, the risk of some cancers is lower in fish eaters and vegetarians than in meat eaters.

Kostis, J. B. and J. M. Dobrzynski (2014). **"The effect of statins on erectile dysfunction: A meta-analysis of randomized trials."** *The Journal of Sexual Medicine* 11(7): 1626-1635. <http://dx.doi.org/10.1111/jsm.12521>

Introduction Erectile dysfunction (ED) is common in older men, especially those with comorbidities such as diabetes and atherosclerotic disease, conditions where statins are frequently prescribed. Aim To examine the effect of statin therapy on ED using the five-item version of the International Inventory of Erectile Function (IIEF). Methods We performed a random-effects meta-analysis of studies identified by a systematic search of MEDLINE, Web of Knowledge, the Cochrane Database, and ClinicalTrials.gov. Examination of the 186 retrieved citations resulted in the selection of 11 randomized trials for inclusion in the meta-analysis. Main Outcome Measures Change in the IIEF score. Results IIEF increased by 3.4 points (95% CI 1.7-5.0, P = 0.0001) with statins compared to control. This effect remained statistically significant after multiple sensitivity analyses, including analysis for publication bias, a cumulative meta-analysis, and 11 repeated analyses with each study omitted sequentially. The increase in IIEF with statins was approximately one-third to one-half of that previously reported with phosphodiesterase-5 inhibitors and larger than the effect of lifestyle modification. Metaregression showed an increase in benefit with decreasing lipophilicity. The average age of participants and the degree of LDL cholesterol lowering did not alter the effect on IIEF. Conclusion Statins cause a clinically relevant improvement of erectile function as measured by the five-item version of the IIEF. Kostis JB and Dobrzynski JM. The effect of statins on erectile dysfunction: A meta-analysis of randomized trials. *J Sex Med* 2014;11:1626-1635.

Kühn, S. and J. Gallinat (2014). **"Brain structure and functional connectivity associated with pornography consumption: The brain on porn."** *JAMA Psychiatry* 71(7): 827-834. <http://dx.doi.org/10.1001/jamapsychiatry.2014.93>

Importance Since pornography appeared on the Internet, the accessibility, affordability, and anonymity of consuming visual sexual stimuli have increased and attracted millions of users. Based on the assumption that pornography consumption bears resemblance with reward-seeking behavior, novelty-seeking behavior, and addictive behavior, we hypothesized alterations of the frontostriatal network in frequent users. Objective To determine whether frequent pornography consumption is associated with the frontostriatal network. Design, Setting, and Participants In a study conducted at the Max Planck Institute for Human Development in Berlin, Germany, 64 healthy male adults covering a wide range of pornography consumption reported hours of pornography consumption per week. Pornography consumption was associated with neural structure, task-related activation, and functional resting-state connectivity. Main Outcomes and Measures Gray matter volume of the brain was measured by voxel-based morphometry and resting state functional connectivity was measured on 3-T magnetic resonance imaging scans. Results We found a significant negative association between reported pornography hours per week and gray matter volume in the right caudate ($P < .001$, corrected for multiple comparisons) as well as with functional activity during a sexual cue-reactivity paradigm in the left putamen ($P < .001$). Functional connectivity of the right caudate to the left dorsolateral prefrontal cortex was negatively associated with hours of pornography consumption. Conclusions and Relevance The negative association of self-reported pornography consumption with the right striatum (caudate) volume, left striatum (putamen) activation during cue reactivity, and lower functional connectivity of the right caudate to the left dorsolateral prefrontal cortex could reflect change in neural plasticity as a consequence of an intense stimulation of the reward system, together with a lower top-down modulation of prefrontal cortical areas. Alternatively, it could be a precondition that makes pornography consumption more rewarding.

Lee, K., V. Talwar, et al. (2014). **"Can classic moral stories promote honesty in children?"** *Psychological Science* 25(8): 1630-1636. <http://pss.sagepub.com/content/25/8/1630.abstract>

The classic moral stories have been used extensively to teach children about the consequences of lying and the virtue of honesty. Despite their widespread use, there is no evidence whether these stories actually promote honesty in children. This study compared the effectiveness of four classic moral stories in promoting honesty in 3- to 7-year-olds. Surprisingly, the stories of "Pinocchio" and "The Boy Who Cried Wolf" failed to reduce lying in children. In contrast, the apocryphal story of "George Washington and the Cherry Tree" significantly increased truth telling. Further results suggest that the reason for the difference in honesty-promoting effectiveness between the "George Washington" story and the other stories was that the former emphasizes the positive consequences of honesty, whereas the latter focus on the negative consequences of dishonesty. When the "George Washington" story was altered to focus on the negative consequences of dishonesty, it too failed to promote honesty in children.

Lilienfeld, S. O., R. D. Latzman, et al. (2014). **"Correlates of psychopathic personality traits in everyday life: Results from a large community survey."** *Frontiers in Psychology* 5. http://www.frontiersin.org/Journal/Abstract.aspx?s=854&name=personality_and_social_psychology&ART_DOI=10.3389/fpsyg.2014.00740

(Free full text available) Although the traits of psychopathic personality (psychopathy) have received extensive attention from researchers in forensic psychology, psychopathology, and personality psychology, the relations of these traits to aspects of everyday functioning are poorly understood. Using a large internet survey of members of the general population ($N = 3388$), we examined the association between psychopathic traits, as measured by a brief but well-validated self-report measure, and occupational choice, political orientation, religious affiliation, and geographical residence. Psychopathic traits, especially those linked to fearless dominance, were positively and moderately associated with holding leadership and management positions, as well as high-risk occupations. In addition, psychopathic traits were positively associated with political conservatism, lack of belief in God, and living in Europe as opposed to the United States, although the magnitudes of these statistical effects were generally small in magnitude. Our findings offer preliminary evidence that psychopathic personality traits display meaningful response penetration into daily functioning, and raise provocative questions for future research.

Limb, M. (2014). **Three in four cancer patients with depression are not getting adequate treatment, studies find.**

Major depression in patients with cancer is often "missed" or "overlooked" such that nearly three quarters are not receiving adequate treatment, research has found. Many of these patients would benefit from a new integrated treatment programme found to be "strikingly" more effective than current care at reducing depression and improving the quality of life, the researchers said. The research findings were contained in three papers, funded by Cancer Research UK and the Scottish government and published simultaneously across three *Lancet* journals on 28 August (the *Lancet*, *Lancet Psychiatry*, and *Lancet Oncology*) ... 1.) Walker J, Hansen C, Martin P, Symeonides S, Ramesseur R, Murray G, et al. Prevalence, associations and adequacy of treatment of major depression in patients with cancer: a cross sectional analysis of routinely collected data. *Lancet Psychiatry* 28 August 2014. [http://dx.doi.org/10.1016/S2215-0366\(14\)70313-X](http://dx.doi.org/10.1016/S2215-0366(14)70313-X). 2.) Sharpe M, Walker J, Hansen C, Martin P, Symeonides S. Integrated collaborative care for comorbid major depression in patients with cancer (SMaRT Oncology-2): a multicentre randomised controlled effectiveness trial. *Lancet* 28 August 2014. [http://dx.doi.org/10.1016/S0140-6736\(14\)61231-9](http://dx.doi.org/10.1016/S0140-6736(14)61231-9). 3.) Walker J, Hansen C, Martin P, Symeonides S, Gourley C, Wall L, et al. Integrated collaborative care for major depression comorbid with a poor prognosis cancer (SMaRT Oncology-3): a multicentre randomised controlled trial in patients with lung cancer. *Lancet Oncol* 2014;15:1168-76.

Littlejohns, T. J., W. E. Henley, et al. (2014). **"Vitamin d and the risk of dementia and alzheimer disease."** *Neurology*. <http://www.neurology.org/content/early/2014/08/06/WNL.000000000000755.abstract>

Objective: To determine whether low vitamin D concentrations are associated with an increased risk of incident all-cause dementia and Alzheimer disease. Methods: One thousand six hundred fifty-eight elderly ambulatory adults free from dementia, cardiovascular disease, and stroke who participated in the US population-based Cardiovascular Health Study between 1992–1993 and 1999 were included. Serum 25-hydroxyvitamin D (25(OH)D) concentrations were determined by liquid chromatography-tandem mass spectrometry from blood samples collected in 1992–1993. Incident all-cause dementia and Alzheimer disease status were assessed during follow-up using National Institute of Neurological and Communicative Disorders and Stroke/Alzheimer's Disease and Related Disorders Association criteria. Results: During a mean follow-up of 5.6 years, 171 participants developed all-cause dementia, including 102 cases of Alzheimer disease. Using Cox proportional hazards models, the multivariate adjusted hazard ratios (95% confidence interval [CI]) for incident all-cause dementia in participants who were severely 25(OH)D deficient (< 25 nmol/L) and deficient (≥ 25 to < 50 nmol/L) were 2.25 (95% CI: 1.23–4.13) and 1.53 (95% CI: 1.06–2.21) compared to participants with sufficient concentrations (≥ 50 nmol/L). The multivariate adjusted hazard ratios for incident Alzheimer disease in participants who were severely 25(OH)D deficient and deficient compared to participants with sufficient concentrations were 2.22 (95% CI: 1.02–4.83) and 1.69 (95% CI: 1.06–2.69). In multivariate adjusted penalized smoothing spline plots, the risk of all-cause dementia and Alzheimer disease markedly increased below a threshold of 50 nmol/L. Conclusion: Our results confirm that vitamin D deficiency is associated with a substantially increased risk of all-cause dementia and Alzheimer disease. This adds to the ongoing debate about the role of vitamin D in nonskeletal conditions.

Lumley, M. A., F. J. Keefe, et al. (2014). **"The effects of written emotional disclosure and coping skills training in rheumatoid arthritis: A randomized clinical trial."** *J Consult Clin Psychol* 82(4): 644-658. <http://www.ncbi.nlm.nih.gov/pubmed/24865870>

OBJECTIVE: Two psychological interventions for rheumatoid arthritis (RA) are cognitive-behavioral coping skills training (CST) and written emotional disclosure (WED). These approaches have developed independently, and their combination may be more effective than either one alone. Furthermore, most studies of each intervention have methodological limitations, and each needs further testing. METHOD: We randomized 264 adults with RA in a 2 x 2 factorial design to 1 of 2 writing conditions (WED vs. control writing) followed by 1 of 2 training conditions (CST vs. arthritis education control training). Patient-reported pain and functioning, blinded evaluations of disease activity and walking speed, and an inflammatory marker (C-reactive protein) were assessed at baseline and 1-, 4-, and 12-month follow-ups. RESULTS: Completion of each intervention was high (>90% of patients), and attrition was low (10.2% at 12-month follow-up). Hierarchical linear modeling of treatment effects over the follow-up period, and analyses of covariance at each assessment point, revealed no interactions between writing and training; however, both interventions had main effects on outcomes, with small effect sizes. Compared with control training, CST decreased pain and psychological symptoms through 12 months. The effects of WED were mixed: Compared with control writing, WED reduced disease activity and physical disability at 1 month only, but WED had more pain than control writing on 1 of 2 measures at 4 and 12 months. CONCLUSIONS: The combination of WED and CST does not improve outcomes, perhaps because each intervention has unique effects at different time points. CST improves health status in RA and is recommended for patients, whereas WED has limited benefits and needs strengthening or better targeting to appropriate patients.

Lundin, K. E. (2014). **"Non-celiac gluten sensitivity - why worry?"** *BMC Medicine* 12(1): 86. <http://www.biomedcentral.com/1741-7015/12/86>

(Free full text available) Wheat, once thought to be a critical ingredient in a healthy diet, has become a major threat, according to public opinion. The term non-celiac gluten sensitivity has been widely adopted to describe a clinical entity characterized by symptoms induced by gluten without the diagnostic criteria found in other gluten-related disorders. However, it has not been shown that gluten per se is involved, and it can be debated if the condition is a disease. Nevertheless, a large number of individuals go gluten-free, avoiding wheat, rye and barley, even without a defined medical cause. In a study in *BMC Medicine*, Volta and colleagues from Italy report on a large, multicenter attempt to enumerate the prevalence of non-celiac gluten sensitivity in secondary gastroenterology care. They found that approximately 3% of their more than 12,000 patients fulfilled their criteria for non-celiac gluten sensitivity. However, we are still challenged with finding stricter clinical criteria for the condition, developing a usable clinical approach for gluten challenge in these individuals, and understanding the pathogenesis of the condition. Please see related article <http://www.biomedcentral.com/1741-7015/12/85>.

Mavilidi, M.-F., V. Hoogerheide, et al. (2014). **"A quick and easy strategy to reduce test anxiety and enhance test performance."** *Applied Cognitive Psychology* 28(5): 720-726. <http://dx.doi.org/10.1002/acp.3058>

The negative thoughts that anxious children experience while sitting for an exam consume working memory resources at the cost of resources for performing on the exam. In a randomized field experiment (N = 117) with primary school students, we investigated the hypothesis that stimulating students to look through the problems of a math test before they start solving them would reduce anxiety, release these anxiety-related working memory resources, and lead to higher test performance than not allowing students to look ahead in the test. The results confirmed the hypothesis, indicating that the positive effects of looking ahead applied to all students, regardless of their anxiety level (low, medium, or high). The results suggest that by looking ahead in a test, less working memory resources are consumed by intrusive thoughts, and consequently, more resources can be used for performing on the test. Theoretical and practical implications of the results are discussed. (The BPS Digest ... <http://digest.bps.org.uk/2014/09/can-this-simple-strategy-reduce.html> ... comments "Crucially, the researchers gave half the students one minute at the test start to skim through all 10 of the maths problems - this was the simple intervention ... the remaining students acted as controls and had an extra minute to answer the first problem. The good news is that the children who took a minute to skim through the questions performed better on average than the control students, and this was true regardless of their tendency to experience test-related anxiety ... the skimming ahead strategy certainly seems like a simple method for boosting children's test performance, but it's not clear that this is specifically a way to reduce test anxiety ... Although further studies need to be conducted to show whether the strategy generalises to other topics, such as language, or that a longer period to look ahead will have a greater impact on anxiety and performance, the strategy seems very promising in enabling students to perform up to their maximum potential."

Mozaffarian, D., S. Fahimi, et al. (2014). **"Global sodium consumption and death from cardiovascular causes."** *New England Journal of Medicine* 371(7): 624-634. <http://www.nejm.org/doi/full/10.1056/NEJMoa1304127>

(Free full text available) Background: High sodium intake increases blood pressure, a risk factor for cardiovascular disease, but the effects of sodium intake on global cardiovascular mortality are uncertain. Methods: We collected data from surveys on sodium intake as determined by urinary excretion and diet in persons from 66 countries (accounting for 74.1% of adults throughout the world), and we used these data to quantify the global consumption of sodium according to age, sex, and country. The effects of sodium on blood pressure, according to age, race, and the presence or absence of hypertension, were calculated from data in a new meta-analysis of 107 randomized interventions, and the effects of blood pressure on cardiovascular mortality, according to age, were calculated from a meta-analysis of cohorts. Cause-specific mortality was derived from the Global Burden of Disease Study 2010. Using comparative risk assessment, we estimated the cardiovascular effects of current sodium intake, as compared with a reference intake of 2.0 g of sodium per day, according to age, sex, and country. Results: In 2010, the estimated mean level of global sodium consumption was 3.95 g per day, and regional mean levels ranged from 2.18 to 5.51 g per day. Globally, 1.65 million annual deaths from cardiovascular causes (95% uncertainty interval [confidence interval], 1.10 million to 2.22 million) were attributed to sodium intake above the reference level; 61.9% of these deaths occurred in men and 38.1% occurred in women. These deaths accounted for nearly 1 of every 10 deaths from cardiovascular causes (9.5%). Four of every 5 deaths (84.3%) occurred in low- and middle-income countries, and 2 of every 5 deaths (40.4%) were premature (before 70 years of age). The rate of death from cardiovascular causes associated with sodium intake above the reference level was highest in the country of Georgia and lowest in Kenya. Conclusions: In this modeling study, 1.65 million deaths from cardiovascular causes that occurred in 2010 were attributed to sodium consumption above a reference level of 2.0 g per day. (Funded by the Bill and Melinda Gates Foundation.)

Natour, J., L. d. A. Cazotti, et al. (2014). **"Pilates improves pain, function and quality of life in patients with chronic low back pain: A randomized controlled trial."** *Clinical Rehabilitation*. <http://cre.sagepub.com/content/early/2014/06/20/0269215514538981.abstract>

Objective: To assess the effectiveness of pilates method on patients with chronic non-specific low back pain (LBP). Method: A randomized controlled trial was carried out in sixty patients with a diagnosis of chronic non-specific LBP.

Patients were randomly assigned to one of two groups: Experimental Group (EG) that maintained medication treatment with use of NSAID and underwent treatment with the pilates method and Control Group (CG) that continue medication treatment with use of NSAID and did not undergo any other intervention. A blinded assessor performed all evaluations at baseline (T0), after 45, 90, and 180 days (T45, T90 and T180) for: pain (VAS), function (Roland Morris questionnaire), quality of life (SF-36), satisfaction with treatment (Likert scale), flexibility (sit and reach test) and NSAID intake. Results: The groups were homogeneous at baseline. Statistical differences favoring the EG were found with regard to pain ($P < 0.001$), function ($P < 0.001$) and the quality of life domains of functional capacity ($P < 0.046$), pain ($P < 0.010$) and vitality ($P < 0.029$). Statistical differences were also found between groups regarding the use of pain medication at T45, T90 and T180 ($P < 0.010$), with the EG taking fewer NSAIDs than the CG. Conclusions: The pilates method can be used by patients with LBP to improve pain, function and aspects related to quality of life (functional capacity, pain and vitality). Moreover, this method has no harmful effects on such patients.

Niles, A. N., K. E. Haltom, et al. (2014). **"Randomized controlled trial of expressive writing for psychological and physical health: The moderating role of emotional expressivity."** *Anxiety Stress Coping* 27(1): 1-17. <http://www.ncbi.nlm.nih.gov/pubmed/23742666>

The current study assessed main effects and moderators (including emotional expressiveness, emotional processing, and ambivalence over emotional expression) of the effects of expressive writing in a sample of healthy adults. Young adult participants ($N=116$) were randomly assigned to write for 20 minutes on four occasions about deepest thoughts and feelings regarding their most stressful/traumatic event in the past five years (expressive writing) or about a control topic (control). Dependent variables were indicators of anxiety, depression, and physical symptoms. No significant effects of writing condition were evident on anxiety, depressive symptoms, or physical symptoms. Emotional expressiveness emerged as a significant moderator of anxiety outcomes, however. Within the expressive writing group, participants high in expressiveness evidenced a significant reduction in anxiety at three-month follow-up, and participants low in expressiveness showed a significant increase in anxiety. Expressiveness did not predict change in anxiety in the control group. These findings on anxiety are consistent with the matching hypothesis, which suggests that matching a person's naturally elected coping approach with an assigned intervention is beneficial. These findings also suggest that expressive writing about a stressful event may be contraindicated for individuals who do not typically express emotions.

Peeters, G., Y. R. van Gellecum, et al. (2014). **"Contribution of house and garden work to the association between physical activity and well-being in young, mid-aged and older women."** *British Journal of Sports Medicine* 48(12): 996-1001. <http://bjsm.bmj.com/content/48/12/996.abstract>

Objective Although physical activity occurs in leisure, transport, occupational and domestic domains of life, the contribution of house and garden work (HGW) to the association between total physical activity and well-being is not clear. The aim was to describe the contribution of HGW to total physical activity (TPA) in association with well-being in younger, mid-aged and older women. Design Younger (25–30 years), mid-aged (50–55 years) and older (76–81 years) participants in the Australian Longitudinal Study on Women's Health completed a mailed survey with questions about leisure, transport and house and garden activities. Well-being was assessed using the physical and mental components scores of the SF-36. Cross-sectional associations between the physical activity variables and well-being were modelled using General Additive Modelling. Results Correlations between HGW and leisure/transport activity (LTA) were low ($r < 0.3$, $p < 0.001$). Positive curvilinear associations were found between LTA and physical and mental well-being in all three cohorts, and between HGW and physical and mental well-being in mid-aged and older women. In the younger women, an inverse relationship was found between HGW and well-being. When HGW and LTA were summed (TPA), the associations between TPA and well-being were attenuated compared with those for LTA alone and well-being. Conclusions In mid-aged and older women, relationships between HGW and well-being were similar to, but weaker than seen for LTA and well-being. In young women, well-being declined with increasing HGW. Summing HGW to LTA led to attenuated relationships, suggesting that domains of physical activity should not be summed when studying relationships with well-being.

Porzig-Drummond, R., R. J. Stevenson, et al. (2014). **"The 1-2-3 magic parenting program and its effect on child problem behaviors and dysfunctional parenting: A randomized controlled trial."** *Behaviour Research and Therapy* 58(0): 52-64. <http://www.sciencedirect.com/science/article/pii/S0005796714000734>

This study investigated the effectiveness of the 1-2-3 Magic parenting program, a brief cognitive-behavioral program, when delivered to large groups of caregivers. The effectiveness of two versions of the programs in reducing child problem behaviors and dysfunctional parenting, and the effect on emotion-related parenting style, were examined. Ninety-two participants with 2–12-year-old children were randomly assigned to one of three groups: DVD ($n = 31$); Emotion-coaching (EC) ($n = 31$); or Waitlist-control ($n = 30$). Both intervention groups reported significantly decreased child problem behaviors, dysfunctional parenting, parental depression and parental stress at post-intervention as compared to the control group. Additionally, the DVD group reported decreased parental anxiety, and the EC group reported a decrease in emotion-dismissing parenting style. Emotion-coaching parenting style remained unchanged for all groups at post-intervention. The results were maintained after three months. After two years, all intervention effects were maintained for the DVD group. For the EC group, effects were maintained on the main outcome variables. The results suggest that both 1-2-3 Magic programs are effective at reducing child problem behavior and dysfunctional parenting when delivered to large groups of caregivers, and that both programs are suitable for a broad delivery approach.

Roberts, S. C., A. C. Little, et al. (2014). **"Partner choice, relationship satisfaction, and oral contraception: The congruency hypothesis."** *Psychological Science* 25(7): 1497-1503. <http://pss.sagepub.com/content/25/7/1497.abstract>

Hormonal fluctuation across the menstrual cycle explains temporal variation in women's judgment of the attractiveness of members of the opposite sex. Use of hormonal contraceptives could therefore influence both initial partner choice and, if contraceptive use subsequently changes, intrapair dynamics. Associations between hormonal contraceptive use and relationship satisfaction may thus be best understood by considering whether current use is congruent with use when relationships formed, rather than by considering current use alone. In the study reported here, we tested this congruency hypothesis in a survey of 365 couples. Controlling for potential confounds (including relationship duration, age, parenthood, and income), we found that congruency in current and previous hormonal contraceptive use, but not current use alone, predicted women's sexual satisfaction with their partners. Congruency was not associated with women's nonsexual satisfaction or with the satisfaction of their male partners. Our results provide empirical support for the congruency hypothesis and suggest that women's sexual satisfaction is influenced by changes in partner preference associated with change in hormonal contraceptive use.

Shafer, K., T. M. Jensen, et al. (2014). **"Relationship effort, satisfaction, and stability: Differences across union type."** *Journal of Marital and Family Therapy* 40(2): 212-232. <http://dx.doi.org/10.1111/jmft.12007>

(Free full text available) Relationship satisfaction and stability are two commonly studied outcomes in marriage and family research. Majority of studies address socio demographic variability and differences across union type in these outcomes. We extend this literature by addressing how the amount of effort one puts into their relationship is associated with stability and satisfaction. Specifically, we focus on how effort impacts these measures of quality in four union types: premarital cohabitation, first marriage, post-divorce cohabitation, and second marriage following divorce. Furthermore, we make union type comparisons in the strength of effort's association with satisfaction and stability. Using data from 8,006 respondents in the Relationship Evaluation Survey, our results show that effort was strongly and positively associated with satisfaction and stability in all four unions. Although effort is more strongly associated with satisfaction in first marriage than cohabiting relationships, no union type differences in the role of effort on stability were observed. Clinical and research implications of these findings are discussed.

Soret, S., A. Mejia, et al. (2014). **"Climate change mitigation and health effects of varied dietary patterns in real-life settings throughout north america."** *The American Journal of Clinical Nutrition* 100(Supplement 1): 490S-495S. http://ajcn.nutrition.org/content/100/Supplement_1/490S.abstract

Background: Greenhouse gas emissions (GHGEs) are a major consequence of our dietary choices. Assessments of plant-based compared with meat-based diets are emerging at the intersection of public health, environment, and nutrition. Objectives: The objective was to compare the GHGEs associated with dietary patterns consumed in a large population across North America and to independently assess mortality according to dietary patterns in the same population. Design: Data from the Adventist Health Study 2 (AHS-2) were used to characterize the differential environmental and health impacts of the following 3 dietary patterns, which varied in the quantity of animal and plant foods: vegetarian, semivegetarian, and nonvegetarian. The GHGE intensities of 210 foods were calculated through life-cycle assessments and by using published data. The all-cause mortality rates and all-cause mortality HRs for the AHS-2 subjects were adjusted for a range of lifestyle and sociodemographic factors and estimated according to dietary pattern. Results: With the use of the nonvegetarian diet as a reference, the mean reductions in GHGEs for semivegetarian and vegetarian diets were 22% and 29%, respectively. The mortality rates for nonvegetarians, semivegetarians, and vegetarians were 6.66, 5.53, and 5.56 deaths per 1000 person-years, respectively. The differences were significant. Compared with nonvegetarians, mortality HRs were lower for semivegetarians (0.86) and vegetarians (0.91). Conclusions: Moderate differences in the caloric intake of meat products provided nontrivial reductions in GHGEs and improved health outcomes, as shown through the mortality analyses. However, this does not mean that diets lower in GHGEs are healthy.

Stolarski, M., G. Matthews, et al. (2014). **"How we feel is a matter of time: Relationships between time perspectives and mood."** *Journal of Happiness Studies* 15(4): 809-827. <http://dx.doi.org/10.1007/s10902-013-9450-y>

Both personality and emotional experiences may be influenced by people's time perspectives. The Zimbardo time perspective inventory measures five trait dimensions related to past, present and future perspectives. Two studies were conducted to investigate how these time perspective dimensions related to mood. The first study (n = 260) confirmed that ZTPI scales predicted moods including energetic arousal, tense arousal and Hedonic Tone, revealing that past negative and Present Hedonistic time perspectives are the most robust predictors of current emotional states. Moreover, future time perspective proved to predict energetic arousal, but the effect was suppressed by present hedonism. The second study (n = 65) measured mood twice in a 4-week period, and focused on relationships between the ZTPI and recalled and anticipated mood. Analyses conducted using DBTP, an index of temporal harmony based on the ZTPI scores, proved that balanced time perspective was related to more positive mood states in both studies. Findings confirmed that time perspective appears to influence both recall and anticipation of mood. For example, past negative time perspective is associated with anticipation of negative moods, and Past Positive perspective relates to both recall and anticipation of energy. Time perspective may structure the individual's affective experience.

UI-Haq, Z., D. F. Mackay, et al. (2014). **"Association between body mass index and mental health among scottish adult population: A cross-sectional study of 37272 participants."** *Psychological Medicine* 44(10): 2231-2240. <http://dx.doi.org/10.1017/S0033291713002833>

Background The evidence is conflicting as to whether body mass index (BMI) is associated with mental health and, if so, to what extent it varies by sex and age. We studied mental health across the full spectrum of BMI among the general population, and conducted subgroup analyses by sex and age. Method We undertook a cross-sectional study of a representative sample of the Scottish adult population. The Scottish Health Survey provided data on mental health, measured by the General Health Questionnaire-12 (GHQ), BMI, demographic and life-style information. Good mental health was defined as a GHQ score <4, and poor mental health as a GHQ score ≥4. Logistic regression models were applied. Results Of the 37 272 participants, 5739 (15.4%) had poor mental health. Overall, overweight participants had better mental health than the normal-weight group [adjusted odds ratio (OR) 0.93, 95% confidence interval (CI) 0.87-0.99, p = 0.049], and individuals who were underweight, class II or class III obese had poorer mental health (class III obese group: adjusted OR 1.26, 95% CI 1.05-1.51, p = 0.013). There were significant interactions of BMI with sex (p = 0.013) and with age (p < 0.001). Being overweight was associated with significantly better mental health in middle-aged men only. In contrast, being underweight at all ages or obese at a young age was associated with significantly poorer mental health in women only. Conclusions The adverse associations between adiposity and mental health are specific to women. Underweight women and young women who are obese have poorer mental health. In contrast, middle-aged overweight men have better mental health.

van der Noordt, M., H. IJzelenberg, et al. (2014). **"Health effects of employment: A systematic review of prospective studies."** *Occupational and Environmental Medicine* 71(10): 730-736. <http://oem.bmj.com/content/71/10/730.abstract>

Objectives The purpose of this review was to systematically summarise the literature on the health effects of employment. Methods A search for prospective studies investigating the effect of employment on health was executed in several electronic databases, and references of selected publications were checked. Subsequently, the methodological quality of each study was assessed by predefined criteria. To draw conclusions about the health effect of employment, a best evidence synthesis was used, and if possible, data were pooled. Results 33 prospective studies were included, of which 23 were of high quality. Strong evidence was found for a protective effect of employment on depression and general mental health. Pooled effect sizes showed favourable effects on depression (OR=0.52; 95% CI 0.33 to 0.83) and psychological distress (OR=0.79; 95% CI 0.72 to 0.86). Insufficient evidence was found for general health, physical health and mortality due to lack of studies or inconsistent findings. Conclusions This systematic review indicates that employment is beneficial for health, particularly for depression and general mental health. There is a need for more research on the effects of employment on specific physical health effects and mortality to fill the knowledge gaps.

Wang, X., Y. Ouyang, et al. (2014). **"Fruit and vegetable consumption and mortality from all causes, cardiovascular disease, and cancer: Systematic review and dose-response meta-analysis of prospective cohort studies."** *BMJ* 349. <http://www.bmj.com/bmj/349/bmj.g4490.full.pdf>

(Available in free full text) Objective To examine and quantify the potential dose-response relation between fruit and vegetable consumption and risk of all cause, cardiovascular, and cancer mortality. Data sources Medline, Embase, and the Cochrane library searched up to 30 August 2013 without language restrictions. Reference lists of retrieved articles. Study selection Prospective cohort studies that reported risk estimates for all cause, cardiovascular, and cancer mortality by levels of fruit and vegetable consumption. Data synthesis Random effects models were used to calculate pooled hazard ratios and 95% confidence intervals and to incorporate variation between studies. The linear and non-linear dose-response relations were evaluated with data from categories of fruit and vegetable consumption in each study. Results Sixteen prospective cohort studies were eligible in this meta-analysis. During follow-up periods ranging from 4.6 to 26 years there were 56 423 deaths (11 512 from cardiovascular disease and 16 817 from cancer) among 833 234 participants. Higher consumption of fruit and vegetables was significantly associated with a lower risk of all cause mortality. Pooled hazard ratios of all cause mortality were 0.95 (95% confidence interval 0.92 to 0.98) for an increment of one serving a day of fruit and vegetables ($P=0.001$), 0.94 (0.90 to 0.98) for fruit ($P=0.002$), and 0.95 (0.92 to 0.99) for vegetables ($P=0.006$). There was a threshold around five servings of fruit and vegetables a day, after which the risk of all cause mortality did not reduce further. A significant inverse association was observed for cardiovascular mortality (hazard ratio for each additional serving a day of fruit and vegetables 0.96, 95% confidence interval 0.92 to 0.99), while higher consumption of fruit and vegetables was not appreciably associated with risk of cancer mortality. Conclusions This meta-analysis provides further evidence that a higher consumption of fruit and vegetables is associated with a lower risk of all cause mortality, particularly cardiovascular mortality.

Weiler, R., S. Allardyce, et al. (2014). **"Is the lack of physical activity strategy for children complicit mass child neglect?"** *British Journal of Sports Medicine* 48(13): 1010-1013. <http://bjsm.bmj.com/content/48/13/1010.short>

(Available in free full text) The government definition of child neglect is "the persistent failure to meet a child's basic physical and/or psychological needs, likely to result in the serious impairment of the child's health or development." Government definition of child abuse includes child neglect and occurs through 'failing to act to prevent harm'. All political parties have neglected state policy on child physical activity for decades. While physical activity guidelines recommend children to spend at least an hour a day being physically active, schools are able to provide no physical education, optional physical education or limited physical education opportunities. Furthermore, a lack of focus, political and public debate on these issues highlights a lack of interest of political parties and educational authorities in the physical literacy of our children and future citizens. A 2012 Ofsted report highlighted that "warm-ups were too short and too easy, and were often followed by long periods of inactivity as teachers introduced PE lessons. Only a few schools had adapted PE programmes to suit the individual needs of obese pupils, or engaged with health agencies, parents and carers to improve the lifestyle of these pupils." Perhaps more worrying is that this same Ofsted report highlighted that "2 h of PE and school sport each week was an aspirational target for schools introduced by the previous government. There is no statutory requirement for schools to devote a specific amount of time to PE." Given the overwhelming evidence supporting physical activity for the physical health, mental health and productivity of children, the lack of policy, lack of cross-party debate and interest, lack of leadership and strategic action on physical activity within schools are complicit and tantamount to state child neglect. This serves to undermine a general understanding of the importance of physical activity for child health and well-being and critically undermines parental responsibility in ensuring their children lead physically active lives. When considering the magnitude of such an important health-related issue, the minimal funding, lack of interest and absence of a child physical activity strategy strongly support the notion that the state is failing to act to prevent harm against children and persistently failing to meet children's basic physical needs, likely to result in the serious impairment of their health and development. This is quite literally indistinguishable from the government's own definition of child neglect.