



Selección de Resúmenes de Menopausia

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Physical activity - the Holy Grail of modern medicine?

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Movement is the basic attribute of life. It is not surprising that the return to regular physical activity is a very effective and cheap means of preventing and treating most non-communicable diseases. Therefore, every physician should be able to prescribe a suitable physical activity. The minimum amount of physical activity with proven effects in primary prevention of chronic diseases is relatively low: 150 minutes of moderate physical activity or 75 minutes of high intensity exercise per week or a combination of the two. The simplest and safe way of physical activity is walking (at least 10 000 steps/day or 6 000 steps/day on top of daily activities). The FITT model is a more sophisticated way of prescribing physical activity that already requires a stress test. Patients at risk of atherosclerosis or with any manifestation of atherosclerosis (patients with coronary artery disease, post-stroke, peripheral artery disease) benefit from exercise as well as patients with chronic heart failure. Physical activity also helps patients with lung disease (COPD), metabolic diseases (diabetes, obesity, osteoporosis) and also rheumatologic diseases. Regular exercise improves cognitive function, reduces depression and anxiety, and helps addicted people. Recently, it has been shown that exercise also changes the gut microbiome. One of the mechanisms that contribute to the beneficial effect of exercise is so-called "exercise factors" - myokines. Physical activity, when properly prescribed, is an inexpensive and universal medication with minimal side effects. It is our "home pharmacy" we always have with us.

BMJ Open. 2017 Nov 9;7(11):e018063. doi: 10.1136/bmjopen-2017-018063.

Relationship between hormone replacement therapy and spinal osteoarthritis: a nationwide health survey analysis of the elderly Korean population.

Park JH, Hong JY, Han K, Han SW, Chun EM.

OBJECTIVES: To identify the effects of hormone replacement therapy (HRT) on spinal osteoarthritis (OA). **METHODS AND DESIGN:** A cross-sectional study of a nationwide survey was performed. **SETTING:** This study collected data from the fifth Korean National Health and Nutrition Examination Survey (2010-2012). **PARTICIPANTS:** After excluding ineligible respondents, the total number of participants in this study was 4265 females. Participants were asked to report symptoms and disabilities related to spinal OA. In addition, plain radiographs of the spine were taken of all patients. **PRIMARY AND SECONDARY OUTCOME MEASURES:** Demographic and lifestyle variables were compared between the HRT and non-HRT groups. In addition, radiographic examination and symptom assessment were performed to determine the existence of spinal OA. **RESULTS:** Marital status, education, income and HRT were correlated with spinal OA. A risk analysis of related factors showed that HRT and age had effects on spinal OA (ORs 0.717 and 1.257). Nevertheless, in the HRT group, smokers had a increased risk of spinal OA. In addition, the HRT group demonstrated a lower prevalence of spinal OA. The calculated risk for compromised morbidity with HRT compared with the prevalence of spinal OA was 0.717 (OR). The duration of HRT was also related to the risk for spinal OA. The group that had been taking HRT for more than 1 year showed decreased risk (OR 0.686) compared with patients with <1 year of HRT (OR 0.744; P<0.05). **CONCLUSION:** Women receiving HRT showed a lower prevalence of spinal OA. HRT also correlated with a decrease in spinal OA morbidity.

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Low bone mineral density in middle-aged women: a red flag for sarcopenia.

Campodónico I, Blümel JE, Arteaga E, Vallejo MS, Valdivia MI.

OBJECTIVE: This study evaluated whether low bone density, a condition related to aging, is associated with low muscle mass, a surrogate for sarcopenia, and whether it could be used as a marker of the condition. **METHODS:** We studied 483 women aged 35 to 69 years old who appeared healthy and attended a preventive gynecological examination. Dual-energy X-ray absorptiometry was used to measure bone mineral density (BMD) and regional body composition. BMD was assessed using the T-score. Low appendicular lean mass (aLM) adjusted by height (aLM index) was defined according to Baumgartner et al (<5.45 kg/m). The association of low aLM index with bone mass was evaluated with a binary logistic regression using a cutoff point on the receiver operating characteristic curves for the T-score of -1.5. **RESULTS:** The participants had a mean

age of 54.7 ± 9.1 years, body mass index of 24.6 ± 3.6 kg/m, aLM index of 5.9 ± 0.6 kg/m (22.6% showed sarcopenia), abdominal fat percentage of $44.0 \pm 9.1\%$, and T-score of -0.48 ± 0.97 . In the logistic regression model, we found that low BMD implied a significant risk for sarcopenia (odds ratio [OR] 1.77; 95% CI, 1.02-3.06). In contrast, excess body weight was a protective factor (OR 0.12; 95% CI, 0.06-0.25). Neither age nor abdominal fat percentage, however, influenced the likelihood of sarcopenia in these women. **CONCLUSIONS:** A BMD T-score below -1.5 suggests low muscle mass in middle-aged women, which is a central element in the diagnosis of sarcopenia. Early diagnosis provides the opportunity to introduce preventive and therapeutic options.

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Age at natural menopause in Koreans: secular trends and influences thereon.

Park CY, Lim JY, Park HY.

OBJECTIVES: Age at natural menopause (ANM) has become an important health issue in older women. We explored secular trends in ANM in Korea during the past decade, and defined factors predicting ANM. **METHODS:** A total of 12,761 naturally menopausal women were selected from the 2001 to 2014 data of the Korea National Health and Nutrition Examination Survey, stages II to VI. The participants were divided into four groups based on 5-year ANM categories: <45, 45 to 49, 50 to 54, and ≥ 55 years. To identify factors associated with ANM, the regression analysis was used. **RESULTS:** Both the mean (SE) and median (SE) ANM were 49.30 (0.07) years. The cumulative proportion of women experiencing menopause before the age of 40, 45, 50, and 55 years was 3.6%, 11.8%, 46.0%, and 90.3%, respectively. The mean (SE) ANM in women born in 1929 or earlier, and between 1930 to 1934, 1935 to 1939, 1940 to 1944, and 1945 to 1949, was 47.9 (0.3), 48.1 (0.2), 48.8 (0.2), 50.1 (0.2), and 50.5 (0.1) years, respectively ($P < 0.001$). Residence in a rural area (odds ratio [OR] 1.82), low weight status (OR 1.61), a history of or current smoking, a low educational level, being without a partner, and participating in at least moderate physical activity (OR 1.47, 1.33, 1.32, and 1.26, respectively) were more likely to result in an early ANM. Women with prior childbirth were less likely to experience early menopause (OR 0.34). In contrast, late menopause was associated with obesity and being overweight (OR 1.63 and 1.27). **CONCLUSIONS:** We found that the mean ANM exhibited upward secular trends. Socioeconomic status and lifestyle factors were the principal independent factors affecting ANM.

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Increased cardiac and stroke death risk in the first year after discontinuation of postmenopausal hormone therapy.

Venetkoski M, Savolainen-Peltonen H, Rahlkola-Soisalo P, Hoti F, Vattulainen P, Gissler M, et al.

OBJECTIVE: The aim of the study was to evaluate the risk of cardiac and stroke deaths in women who discontinue postmenopausal hormone therapy (HT). **METHODS:** We analyzed the risk of death due to cardiac ($n=5,204$) and cerebrovascular ($n=3,434$) causes in Finnish women who discontinued systemic HT during 1994 to 2013 ($n=432,775$). The risks were compared with those in the age-matched female background population and with those in age-matched HT users. Women diagnosed with cardiac or cerebrovascular events within 1 year before discontinuation of HT were excluded ($n=8,711$). **RESULTS:** Women younger than 60 years at discontinuation of HT showed a significantly increased risk of cardiac death (after ≤ 5 y of HT exposure, standardized mortality ratio [SMR] 1.52, 95% CI 1.13-2.00; after > 5 y of exposure, SMR 2.08, 95% CI 1.44-2.90) and stroke death (after ≤ 5 y of exposure, SMR 2.62, 95% CI 2.07-3.28; after > 5 y of exposure, SMR 3.22, 95% CI 2.29-4.40) during the first year after treatment as compared with age-matched female background population. When compared with HT users, elevations in risks of cardiac and stroke deaths were even higher. Increased mortality risks were limited to the first post-HT year because increases in risks vanished or markedly decreased when the follow-up time was extended over more than 1 year. **CONCLUSIONS:** Discontinuation of postmenopausal HT may be associated with increased risk of cardiac and stroke death in the first posttreatment year. Further investigation is required to evaluate causality of the observed associations.

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Sexual activity and vaginal symptoms in the postintervention phase of the Women's Health Initiative Hormone Therapy Trials.

Gass M, Larson J, Cochrane B, Manson JE, Lane D, Barnabei V, Ockene J, Stefanick ML, Mouton C.

OBJECTIVE: To assess the impact of discontinuing oral hormone therapy (HT) on sexual activity, vaginal symptoms, and sexual activity components among participants in the estrogen-progestin therapy (EPT) and estrogen therapy (ET) trial of the

Women's Health Initiative. **METHODS:** Surveys were sent postintervention to those who were still taking study pills and agreed to continue in the study when the trials were stopped. Comparisons between former HT and placebo users were accomplished with chi-square tests for categorical variables and t tests for continuous variables. **RESULTS:** In all, 13,902 women with mean age at survey 69.9 years (EPT trial, women with intact uterus) and 71.7 years (ET trial, women with history of hysterectomy) responded. Prevalence of sexual activity postintervention was not significantly different between former EPT and placebo users (36.0% vs 34.2%; $P=0.37$). Sexual activity of former ET users was 5.6% higher than placebo users (27.6% vs 22.0%; $P=0.001$). The majority of sexually active women overall maintained orgasmic capacity and sexual satisfaction. Former EPT users were 10% to 12% more likely than former placebo users to report decreased desire, arousal, intercourse, climax, and satisfaction with sexual activity, and also increased dryness and dyspareunia upon discontinuing study drugs ($P<0.001$). Former ET users were more likely than placebo users to report rare to no desire or arousal postintervention ($P<0.001$). **CONCLUSIONS:** Postintervention ET trial participants formerly assigned to ET were significantly more likely to report sexual activity than those formerly assigned to placebo. Women who discontinued EPT were significantly more likely to report negative vaginal and sex-related effects.

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Prediction of age at menopause in women with polycystic ovary syndrome.

Minooee S, Ramezani Tehrani F, Rahmati M, Mansournia MA, Azizi F.

OBJECTIVE: Considering the role of anti-Müllerian hormone (AMH) in female fertility and its high levels in women with polycystic ovary syndrome (PCOS), the longer reproductive span of these women is in doubt. In the present study, we aimed to improve earlier predictions using a non-linear model to substantiate the question as to whether PCOS women reach menopause later. **METHODS:** In total, 1162 women aged 20-50 years, comprising 378 PCOS cases and 784 eumenorrheic non-hirsute women, met the eligibility criteria. A scatterplot matrix was drawn to detect the association between age and AMH; this association was explored using a fractional polynomial regression model. Model assumptions were checked by examining the distribution of the residuals and plotting the standardized residuals against the functional form of AMH. **RESULTS:** The serum concentration of AMH among PCOS participants was significantly higher than in the controls (5.4 ng/ml (IQR 2.8-9.1 ng/ml) vs. 1.4 ng/ml (IQR 0.6-2.7 ng/ml), $p < 0.001$). The estimated mean age at menopause was 51.4 (95% CI 45-59) years and 49.7 (95% CI 45-55) years in PCOS cases and healthy controls, respectively. **CONCLUSIONS:** These findings provide the insight that, as reflected through significantly higher average levels of AMH in PCOS women, their predicted reproductive lifespan could be 2 years longer than their normo-ovulatory counterparts.

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Vertebral Fractures Following Discontinuation of Denosumab: a Post-hoc Analysis of the Randomized Placebo-controlled FREEDOM Trial and its Extension.

Cummings SR, Ferrari S, Eastell R, Gilchrist N, Beck Jensen JE, McClung M, Roux C, Törring O, et al.

Denosumab reduces bone resorption and vertebral and nonvertebral fracture risk. Denosumab discontinuation increases BTMs 3 months after a scheduled dose is omitted, reaching above-baseline levels by 6 months, and decreases BMD to baseline levels by 12 months. We analyzed the risk of new or worsening vertebral fractures, especially multiple vertebral fractures, in participants who discontinued denosumab during the FREEDOM study or its Extension. Participants received ≥ 2 doses of denosumab or placebo Q6M, discontinued treatment, and stayed in the study ≥ 7 months after the last dose. Of 1001 participants who discontinued denosumab during FREEDOM or Extension, the vertebral fracture rate increased from 1.2 per 100 participant-years during the on-treatment period to 7.1, similar to participants who received and then discontinued placebo ($N=470$; 8.5 per 100 participant-years). Among participants with ≥ 1 off-treatment vertebral fracture, the proportion with multiple (>1) was larger among those who discontinued denosumab (60.7%) than placebo (38.7%; $p=0.049$), corresponding to a 3.4% and 2.2% risk of multiple vertebral fractures, respectively. The odds (95% CI) of developing multiple vertebral fractures after stopping denosumab were 3.9 (2.1-7.2) times higher in those with prior vertebral fractures, sustained before or during treatment, than those without, and 1.6 (1.3-1.9) times higher with each additional year of off-treatment follow-up; among participants with available off-treatment total hip (TH) BMD measurements, the odds were 1.2 (1.1-1.3) times higher per 1% annualized TH BMD loss. The rates (per 100 participant-years) of nonvertebral fractures during the off-treatment period were similar (2.8, denosumab; 3.8, placebo). The vertebral fracture rate increased upon denosumab discontinuation to the level observed in untreated participants. A majority of participants who sustained a vertebral fracture after discontinuing denosumab had multiple vertebral fractures, with greatest risk in participants with a prior vertebral fracture. Therefore, patients who discontinue denosumab should rapidly transition to an alternative antiresorptive treatment.