



## Selección de Resúmenes de Menopausia

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**Nat Commun. 2014 Aug 21;5:4708. doi: 10.1038/ncomms5708.**

### **A metabolic view on menopause and ageing.**

Auro K, Joensuu A, Fischer K, Kettunen J, Salo P, Mattsson H, et al.

The ageing of the global population calls for a better understanding of age-related metabolic consequences. Here we report the effects of age, sex and menopause on serum metabolites in 26,065 individuals of Northern European ancestry. Age-specific metabolic fingerprints differ significantly by gender and, in females, a substantial atherogenic shift overlapping the time of menopausal transition is observed. In meta-analysis of 10,083 women, menopause status associates with amino acids glutamine, tyrosine and isoleucine, along with serum cholesterol measures and atherogenic lipoproteins. Among 3,204 women aged 40-55 years, menopause status associates additionally with glycine and total, monounsaturated, and omega-7 and -9 fatty acids. Our findings suggest that, in addition to lipid alterations, menopause may contribute to future metabolic and cardiovascular risk via influencing amino-acid concentrations, adding to the growing evidence of the importance of amino acids in metabolic disease progression. These observations shed light on the metabolic consequences of ageing, gender and menopause at the population level.

**Int J Womens Health. 2014 Aug 11;6:745-57. doi: 10.2147/IJWH.S61685. eCollection 2014.**

### **Modification of blood pressure in postmenopausal women: role of hormone replacement therapy.**

Cannoletta M, Cagnacci A.

The rate of hypertension increases after menopause. Whether estrogen and progesterone deficiency associated with menopause play a role in determining a worst blood pressure (BP) control is still controversial. Also, studies dealing with the administration of estrogens or hormone therapy (HT) have reported conflicting evidence. In general it seems that, despite some negative data on subgroups of later postmenopausal women obtained with oral estrogens, in particular conjugated equine estrogens (CEE), most of the data indicate neutral or beneficial effects of estrogen or HT administration on BP control of both normotensive and hypertensive women. Data obtained with ambulatory BP monitoring and with transdermal estrogens are more convincing and concordant in defining positive effect on BP control of both normotensive and hypertensive postmenopausal women. Overall progestin adjunct does not hamper the effect of estrogens. Among progestins, drospirenone, a spironolactone-derived molecule, appears to be the molecule with the best antihypertensive properties.

**J Endocrinol. 2014 Aug 20. pii: JOE-14-0349. [Epub ahead of print]**

### **Oestrogen, ocular function and low-level vision: a review.**

Hutchinson CV, Walker J, Davidson C.

Over the last ten years, a literature has emerged concerning the sex steroid hormone oestrogen and its role in human vision. Here, we review evidence that oestrogen (estradiol) levels may significantly affect ocular function and low-level vision, particularly in older females. In doing so, we have examined a number of vision-related disorders including dry eye, cataract, increased intraocular pressure, glaucoma, age-related macular degeneration and Leber's hereditary optic neuropathy. In each case, we have found oestrogen, or lack thereof, to have a role. We have also included discussion of how oestrogen-related pharmacological treatments for menopause and breast cancer can impact the pathology of the eye and a number of psychophysical aspects of vision. Finally we have reviewed oestrogen's pharmacology and suggest potential mechanisms underlying its beneficial effects, with particular emphasis on anti-apoptotic and vascular effects.

**J Am Heart Assoc. 2014 Aug 20;3(4). pii: e001127. doi: 10.1161/JAHA.114.001127.**

### **Obesity, physical activity, and their interaction in incident atrial fibrillation in postmenopausal women.**

Azarbal F, Stefanick ML, Salmoirago-Blotcher E, Manson JE, Albert CM, LaMonte MJ, et al.

**BACKGROUND:** Atrial fibrillation (AF) is the most common cardiac arrhythmia and is associated with increased risk of stroke and death. Obesity is an independent risk factor for AF, but modifiers of this risk are not well known. We studied the roles of obesity, physical activity, and their interaction in conferring risk of incident AF. **METHODS AND RESULTS:** The Women's Health Initiative (WHI) Observational Study was a prospective observational study of 93 676 postmenopausal women followed for an average of 11.5 years. Incident AF was identified using WHI-ascertained hospitalization records and diagnostic codes from Medicare claims. A multivariate Cox's hazard regression model adjusted for demographic and clinical risk factors was used to evaluate the interaction between obesity and physical activity and its association with incident AF. After exclusion of women with prevalent AF, incomplete data, or underweight body mass index (BMI), 9792 of the remaining 81 317 women developed AF. Women were, on average, 63.4 years old, 7.8% were African American, and 3.6% were Hispanic. Increased BMI (hazard ratio [HR], 1.12 per 5-kg/m<sup>2</sup> increase; 95% confidence interval [CI], 1.10 to 1.14) and reduced physical activity (>9 vs. 0 metabolic equivalent task hours per week; HR, 0.90; 95% CI, 0.85 to 0.96) were independently associated with higher rates of AF after multivariate adjustment. Higher levels of physical activity reduced the AF risk conferred by obesity (interaction P=0.033). **CONCLUSIONS:** Greater physical activity is associated with lower rates of incident AF and modifies the association between obesity and incident AF

**Curr Hypertens Rep. 2014 Oct;16(10):479. doi: 10.1007/s11906-014-0479-z.**

### **Treatment of hypertension and metabolic syndrome: lowering blood pressure is not enough for organ protection, new approach-arterial destiffening.**

Zimlichman R.

Cardiovascular risk factors (CVRFs) have been shown to induce end organ damage. Until now, the main approach to reduce CVRF-induced end organ damage was by normalization of CVRFs; this approach was found effective to reduce damage and cardiovascular (CV) events. However, a residual risk always remained even when CVRFs were optimally balanced. An additional risk factor which has an immense effect on the progression of end organ damage is aging. Aging is accompanied by gradual stiffening of the arteries which finally leads to CV events. Until recently, the process of arterial aging was considered as unmodifiable, but this has changed. Arterial stiffening caused by the aging process is similar to the changes seen as a result of CVRF-induced arterial damage. Actually, the presence of CVRFs causes faster arterial stiffening, and the extent of damage is proportional to the severity of the CVRF, the length of its existence, the patient's genetic factors, etc. Conventional treatments of osteoporosis and of hormonal decline at menopause are potential additional approaches to positively affect progression of arterial stiffening. The new approach to further decrease progression of arteriosclerosis, thus preventing events, is the prevention of age-associated arterial structural changes. This approach should further decrease age-associated arterial stiffening. A totally new promising approach is to study the possibility of affecting collagen, elastin, and other components of connective tissue that participate in the process of arterial stiffening. Reduction of pulse pressure by intervention in arterial stiffening process by novel methods as breaking collagen cross-links or preventing their formation is an example of future directions in treatment. This field is of enormous potential that might be revolutionary in inducing further significant reduction of cardiovascular events.

**Menopause. 2014 Aug 18. [Epub ahead of print]**

### **Feelings of energy are associated with physical activity and sleep quality, but not adiposity, in middle-aged postmenopausal women.**

Ward-Ritacco CL, Adrian AL, O'Connor PJ, Binkowski JA, Rogers LQ, Johnson MA, Evans EM.

**OBJECTIVE:** Feelings of fatigue and low energy are widespread among middle-aged women and have been shown to negatively affect quality of life. The aim of the present study was to examine the associations among adiposity, physical activity, and feelings of fatigue and energy in postmenopausal women. **METHODS:** Postmenopausal women (N = 74; mean [SD] age, 58.9 [3.8] y) were assessed for adiposity (via dual-energy x-ray absorptiometry), steps per day, minutes of moderate to vigorous physical activity per day (via an accelerometer), prior week intensity of psychological vigor (via the Profile of Mood States-Short Form), and prior month frequency of energy feelings (via the vitality scale of the 36-item Medical Outcomes Survey-Short Form). Sleep quality was measured using the Pittsburgh Sleep Quality Index, depression was measured using the Beck Depression Inventory-II, and perceived stress was measured using the Perceived Stress Scale. **RESULTS:** Adiposity was negatively related to steps per day (r = -0.55, P < 0.05) and minutes of moderate to vigorous physical activity per day (r = -0.48, P < 0.05). Adiposity was not significantly related to vigor, vitality, or any other psychological measures. Greater vitality was associated with lower total number of medications (r = -0.31, P < 0.01), more steps per day (r = 0.28, P < 0.05), and higher minutes of moderate to vigorous physical activity

per day ( $r = 0.37$ ,  $P < 0.01$ ). Prior week feelings of vigor were unrelated to any variable of interest. Regression analyses revealed that minutes of moderate to vigorous physical activity per day independently explained 8% of the variance in vitality, whereas sleep quality was also a significant predictor of vitality (both  $P < 0.05$ ). **CONCLUSIONS:** Engaging in recommended amounts of moderate to vigorous physical activity per day is associated with higher monthly frequency of energy feelings, regardless of adiposity status, in middle-aged postmenopausal women.

**Clin Exp Obstet Gynecol. 2014;41(4):409-14.**

### **Is there any association between mild hypertension and hot flash experience among women?**

Erkal N, Çağlar M, Sahillioglu B, Gulerman C, Guray Y, Korkmaz S.

**OBJECTIVE:** To determine the association between ambulatory blood pressure (ABP), heart rate, and hot flash (HF) experience among women. **MATERIALS AND METHODS:** The authors recruited 110 women aged 22 to 65 years with mild essential hypertension or normotension confirmed by 24-hour ABP monitoring. None of the women had organ damage, inflammatory diseases, on estrogen replacement therapy or any other risk factors. Participants wore an ABP monitor that both records heart rate during 24 hours and noted their awake and sleep times. HF were assessed using an everyday complaint questionnaire that included symptoms associated with menopause. Each participant was asked whether or not she had experienced each symptom during the two weeks before the interview. **RESULTS:** Fifty-five of the participants (45%) reported having had HF during the two weeks before they completed the questionnaire. The results show that the prevalence of essential hypertension (EH) in the group of women who had HF was significantly higher than the group of women that did not have HF ( $p = 0.035$ ). The authors also found that hypertensive women had HF more often than normotensive women ( $p = 0.035$ ), but other parameters including mean awake and sleep systolic BP values, mean awake and sleep diastolic BP values, heart rates, and nocturnal dipping of BP did not differ statistically among the group of women who had HF and the group of women who did not have HF ( $p > 0.05$ ). **CONCLUSIONS:** These data suggest that the prevalence of EH in the group of women who have HF is significantly higher than the group of women that does not have HF.

**Lancet. 2014 Aug 13. pii: S0140-6736(14)60892-8. doi: 10.1016/S0140-6736(14)60892-8. [Epub ahead of print]**

### **Body-mass index and risk of 22 specific cancers: a population-based cohort study of 5.24 million UK adults.**

Bhaskaran K, Douglas I, Forbes H, Dos-Santos-Silva I, Leon DA, Smeeth L.

**BACKGROUND:** High body-mass index (BMI) predisposes to several site-specific cancers, but a large-scale systematic and detailed characterisation of patterns of risk across all common cancers adjusted for potential confounders has not previously been undertaken. We aimed to investigate the links between BMI and the most common site-specific cancers. **METHODS:** With primary care data from individuals in the Clinical Practice Research Datalink with BMI data, we fitted Cox models to investigate associations between BMI and 22 of the most common cancers, adjusting for potential confounders. We fitted linear then non-linear (spline) models; investigated effect modification by sex, menopausal status, smoking, and age; and calculated population effects. **FINDINGS:** 5.24 million individuals were included; 166 955 developed cancers of interest. BMI was associated with 17 of 22 cancers, but effects varied substantially by site. Each 5 kg/m<sup>2</sup> increase in BMI was roughly linearly associated with cancers of the uterus (hazard ratio [HR] 1.62, 99% CI 1.56-1.69;  $p < 0.0001$ ), gallbladder (1.31, 1.12-1.52;  $p < 0.0001$ ), kidney (1.25, 1.17-1.33;  $p < 0.0001$ ), cervix (1.10, 1.03-1.17;  $p = 0.00035$ ), thyroid (1.09, 1.00-1.19;  $p = 0.0088$ ), and leukaemia (1.09, 1.05-1.13;  $p \leq 0.0001$ ). BMI was positively associated with liver (1.19, 1.12-1.27), colon (1.10, 1.07-1.13), ovarian (1.09, 1.04-1.14), and postmenopausal breast cancers (1.05, 1.03-1.07) overall (all  $p < 0.0001$ ), but these effects varied by underlying BMI or individual-level characteristics. We estimated inverse associations with prostate and premenopausal breast cancer risk, both overall (prostate 0.98, 0.95-1.00; premenopausal breast cancer 0.89, 0.86-0.92) and in never-smokers (prostate 0.96, 0.93-0.99; premenopausal breast cancer 0.89, 0.85-0.94). By contrast, for lung and oral cavity cancer, we observed no association in never smokers (lung 0.99, 0.93-1.05; oral cavity 1.07, 0.91-1.26): inverse associations overall were driven by current smokers and ex-smokers, probably because of residual confounding by smoking amount. Assuming causality, 41% of uterine and 10% or more of gallbladder, kidney, liver, and colon cancers could be attributable to excess weight. We estimated that a 1 kg/m<sup>2</sup> population-wide increase in BMI would result in 3790 additional annual UK patients developing one of the ten cancers positively associated with BMI. **INTERPRETATION:** BMI is associated with cancer risk, with substantial population-level effects. The heterogeneity in the effects suggests that different mechanisms are associated with different cancer sites and different patient subgroups.