



## Selección de Resúmenes de Menopausia

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### Consumption of ultra-processed foods and health outcomes: a systematic review of epidemiological studies

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Background: Consumption of ultra-processed foods (UPFs) plays a potential role in the development of obesity and other diet-related noncommunicable diseases (NCDs), but no studies have systematically focused on this. This study aimed to summarize the evidence for the association between UPFs consumption and health outcomes. Methods: A comprehensive search was conducted in PubMed, Embase, and Web of Science to identify all relevant studies. Epidemiological studies were included, and identified studies were evaluated for risk of bias. A narrative review of the synthesized findings was provided to assess the association between UPFs consumption and health outcomes. Results: 20 studies (12 cohort and 8 cross-sectional studies) were included in the analysis, with a total of 334,114 participants and 10 health outcomes. In a narrative review, high UPFs consumption was obviously associated with an increased risk of all-cause mortality, overall cardiovascular diseases, coronary heart diseases, cerebrovascular diseases, hypertension, metabolic syndrome, overweight and obesity, depression, irritable bowel syndrome, overall cancer, postmenopausal breast cancer, gestational obesity, adolescent asthma and wheezing, and frailty. It showed no significant association with cardiovascular disease mortality, prostate and colorectal cancers, gestational diabetes mellitus and gestational overweight. Conclusions: This study indicated a positive association between UPFs consumption and risk of several health outcomes. Large-scale prospective designed studies are needed to confirm our findings.

**Bone. 2020 Aug 16;115597.doi: 10.1016/j.bone.2020.115597. Online ahead of print.**

### Bone mineral density and osteoporosis in relation to all-cause and cause-specific mortality in NHANES: a population-based cohort study

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Objective: The majority of the published studies ascertaining the relationships between low bone mineral density (BMD) and mortality highlighted the elderly population with limited sample size. Our study aimed to ascertain the relationships in general population. Methods: This study ascertained the relationships between BMD levels in femur and lumbar spine with all-cause and cause-specific mortality in the National Health and Nutrition Examination Survey (NHANES) (n=15,076, mean age 48.6 years). Cox proportional hazards models were adopted to calculate the hazard ratios (HR) and the corresponding 95% confidence intervals (CIs) for mortality. Results: During a 6.8-year median follow-up, 1,216 men and women in the cohort died. There was a higher risk of all-cause mortality among participants with osteoporosis compared with normal in the regions of total femur (HR=1.36, 95% CI=1.07-1.73), femur neck (HR=1.41, 95% CI=1.11-1.78), intertrochanter (HR=1.34, 95% CI=1.05-1.72), as well as overall (HR=1.36, 95% CI=1.09-1.69). Non-linear dose-response analyses showed a statistically significant L-shaped association for all-cause mortality with BMD increment in the regions of total femur, femur neck, trochanter, and intertrochanter. The protective role of higher BMD level in femur for decreased risk of cancer mortality and heart diseases mortality was more evident in male participants and female participants, respectively. Conclusions: In summary, our results revealed that maintaining normal BMD is critical to lower the risk of mortality. The association between higher BMD level in femur and decreased risk of cancer as well as heart diseases mortality varies by gender.

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### Reproductive Longevity and Aging: Geroscience Approaches to Maintain Long-Term Ovarian Fitness

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Increases in delayed childbearing worldwide have elicited the need for a better understanding of the biological underpinnings and implications of age-related infertility. In women 35 years and older the incidences of infertility, aneuploidy, and birth defects dramatically increase. These outcomes are a result of age-related declines in both ovarian reserve and oocyte quality. In addition to waning reproductive function, the decline in estrogen secretion at menopause contributes to multi-system aging and the initiation of frailty. Both reproductive and hormonal ovarian function are limited by the primordial follicle pool (PFP), which is established in utero and declines irreversibly until menopause. Because ovarian function is dependent on the PFP, an understanding of the mechanisms that regulate follicular growth and maintenance of the PFP is critical for the development of interventions to prolong the reproductive lifespan. Multiple pathways related to aging and nutrient-sensing converge in the mammalian ovary to regulate quiescence or activation of primordial follicles. The PI3K/PTEN/AKT/FOXO3 and associated TSC/mTOR pathways are central to the regulation of the PFP; however, aging-associated systems such as the insulin-like growth factor-1 (IGF-1)/growth hormone (GH) pathway, and transsulfuration/hydrogen sulfide (H<sub>2</sub>S) pathways may also play a role. Additionally, sirtuins aid in maintaining developmental metabolic competence and chromosomal integrity of the oocyte. Here we review the pathways that regulate ovarian reserve and oocyte quality, and discuss geroscience interventions that leverage our understanding of these pathways to promote reproductive longevity.

**Prz Menopauzalny. 2020 Jul;19(2):53-60.doi: 10.5114/pm.2020.97835. Epub 2020 Jul 13.**

### **Relationship of the neutrophil/lymphocyte ratio with cardiovascular risk markers in premenopausal and postmenopausal women**

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Introduction: Cardiovascular disease is more frequent in postmenopausal women. Atherosclerosis is associated with inflammation and the neutrophil/lymphocyte ratio (NLR) is a marker of inflammation whose behavior in postmenopause is unknown. Aim of the study: To know the relationship of the NLR with cardiovascular risk markers in premenopausal and postmenopausal women. Material and methods: Premenopausal and postmenopausal women were studied, in all of them a complete hemogram and the NLR, platelet/lymphocyte ratio (PLR) were calculated, also glucose and lipids levels were measured. In all of them subcutaneous and visceral fat, carotid intima-media thickness (IMT), epicardial fat were measured by ultrasound Also baseline and and after flow-mediated stimulus the arterial diameter, the pulsatility index and the resistive index of the brachial artery were measured by ultrasound. The results are reported with medians and intervals, Mann-Whitney U and Spearman correlation analysis were performed. Results: Eighty two patients were recruited, 41 premenopausal and 41 postmenopausal. When comparing both groups there was no difference in glucose, lipids, NLR, PLR, carotid IMT, epicardial fat, subcutaneous fat, visceral fat or Doppler parameters of the brachial artery. Conclusion: NLR was not different between premenopausal and postmenopausal women but abnormal PLR was greater in those postmenopausal with vasomotor symptoms.

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### **Genetic variation and hot flashes: A systematic review**

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Context: Approximately 70% of women report experiencing vasomotor symptoms (VMS, hot flashes and/or night sweats). The etiology of VMS is not clearly understood but may include genetic factors. Evidence acquisition: We searched PubMed and Embase in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses guidance. We included studies on associations between genetic variation and VMS. We excluded studies focused on medication interventions or prevention or treatment of breast cancer. Evidence synthesis: Of the 202 unique citations, 18 citations met the inclusion criteria. Study sample sizes ranged from 51 to 17,695. Eleven of the 18 studies had fewer than 500 participants; two studies had  $\geq 1,000$ . Overall, statistically significant associations with VMS were found for variants in 14 of the 26 genes assessed in candidate gene studies. The cytochrome P450 family 1 subfamily A member 1 (CYP1B1) gene was the focus of the largest number ( $n = 7$ ) of studies, but strength and statistical significance of associations of CYP1B1 variants with VMS were inconsistent. A genome-wide association study reported statistically significant associations between 14 single-nucleotide variants in the tachykinin receptor 3 gene and VMS. Heterogeneity across trials regarding VMS measurement methods and effect measures precluded quantitative meta-analysis; there were few studies of each specific genetic variant. Conclusions: Genetic variants are associated with VMS. The associations are not limited to variations in sex steroid metabolism genes. However, studies were few and future studies are needed to confirm and extend these findings.

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## **Vaginal laser treatment of genitourinary syndrome of menopause: does the evidence support the FDA safety communication?**

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**Importance:** Genitourinary syndrome of menopause (GSM) is a chronic, progressive condition frequently manifesting as vaginal dryness and pain with intercourse. Survey data indicate this is a highly prevalent, likely underreported, condition that profoundly affects quality of life for millions of women. Vaginal lasers demonstrate promise as an effective, nonhormone therapeutic alternative for GSM; however, the risks associated with them may have been overstated. **Objective:** Despite reports of improved sexual and vaginal comfort without serious safety concerns, the Food and Drug Administration (FDA) issued a 2018 safety communication warning against it. We conducted a systematic literature review and surveyed both the FDA Manufacturer and User Facility Device Experience (MAUDE) and Bloomberg Law Databases to evaluate risks associated with laser treatment for GSM. **Evidence review:** A systematic literature review identified articles published before September 2019. The MAUDE database was searched by name from 2009 to 2019 for safety claims for 24 vaginal laser devices. The Bloomberg Law database was searched for product liability claims against any vaginal laser device manufacturer before July 2019. **Findings:** Literature review revealed 3 publications detailing 29 presumptive laser-associated complications, only 5 of which (17.2%) reported worsening symptoms after treatment. The MAUDE database contained 120 complaints; only 30 (25%) detailed potential adverse patient events, most frequently pain (n = 12) and burning (n = 10). The Bloomberg law database contained no claims asserting harm from device use. **Conclusions and relevance:** Lacking strong evidence indicating significant patient risk for vaginal laser treatment of GSM, the FDA safety communication appears unsubstantiated and implies gender bias. Identified complications suggest most reported "adverse events" represent lack of treatment effect. The well-documented benefits and low risk of adverse event suggest laser therapy for GSM is reasonable with appropriate pretreatment counseling. Additional randomized, well-controlled clinical trials are needed to further elucidate both the safety and efficacy of this nonhormone therapy.

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## **Migraine and menopause - a narrative review**

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**Importance and objectives:** This narrative review addresses common clinical questions and concerns of both physicians and patients about migraine during and after the perimenopausal transition, specifically (1) How does the perimenopausal transition affect migraine prevalence and does this vary by migraine type? (2) Does the magnitude of stroke risk associated with migraine increase with hormone therapy (HT)?, and (3) What are best practices as regards migraine treatment in perimenopausal women? **Methods:** We searched PubMed from 2010 through the present. Search terms included migraine, menopause, and HT. Articles were included if they were in English and had full text availability. In addition, key references identified in the search articles were included. **Discussion and conclusion:** Many women are informed that their migraines will disappear postmenopause; there are some data to support this, but a specific time frame has not been evidenced. Stroke risk in women with migraine with aura is small in absolute terms, but important at the population level, because migraine is so prevalent. The risk becomes clinically important in the context of additional stroke risk factors, which increase with aging such as hypertension. Estrogen in combined hormonal contraception increases the risk of an ischemic stroke, however, the lower amount of estrogen in HT may not contribute to a meaningful increase in stroke risk. HT is a preventative sex-specific treatment for female migraineurs for the menopausal transition. Sex differences for other conventional treatments outside their use in menstrual and menstrually related migraine have not been studied specifically in the menopausal transition.