



## Selección de Resúmenes de Menopausia

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### Health Effects of Vitamin D supplementation: Lessons Learned from Randomized Controlled Trials and Mendelian Randomization Studies

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Vitamin D plays an important role in calcium homeostasis and many cellular processes. Although vitamin D supplements are widely recommended for community dwelling adults, definitive data on whether these supplements benefit clinically important skeletal and extra-skeletal outcomes have been conflicting. While observational studies on effects of vitamin D on musculoskeletal and extra-skeletal outcomes may be confounded by reverse causation, randomized controlled studies (RCTs) and Mendelian Randomization (MR) studies can help to elucidate causation. In this review we summarize the recent findings from large RCTs and/or MR studies of vitamin D on bone health and risk of fractures, falls, cancer, and cardiovascular disease, disorders of the immune system, multiple sclerosis, and mortality in community-dwelling adults. The primary analyses indicate that vitamin D supplementation does not decrease bone loss, fractures, falls, cancer incidence, hypertension, or cardiovascular risk in generally healthy populations. Large RCTs and meta-analyses suggest an effect of supplemental vitamin D on cancer mortality. The existence of extra-skeletal benefits of vitamin D supplementations are best documented for the immune system especially in people with poor vitamin D status, autoimmune diseases and multiple sclerosis. Accumulating evidence indicates that vitamin D may reduce all-cause mortality. These findings, in mostly vitamin D replete populations, do not apply to older adults in residential communities or adults with vitamin D deficiency or osteoporosis. The focus of vitamin D supplementation should shift from widespread use in generally healthy populations to targeted vitamin D supplementation in select individuals, good nutritional approaches, and elimination of vitamin D deficiency globally.

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### Prevalence of menopausal symptoms and severity related factors among mid-aged Paraguayan women as measured with the 10-item Cervantes Scale

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**Objective:** To determine the prevalence of menopausal symptoms and factors related to severity in mid-aged women. **Methods:** Cross-sectional study in which 216 urban-living women from Asunción-Paraguay (40-60 years) were surveyed with the 10 item Cervantes Scale (CS-10) and a general questionnaire (personal and partner data). **Results:** Median (interquartile range [IQR]) age of the sample was 48 [9] years, 48.1% were postmenopausal, 8.8% used menopausal hormone therapy, 39.4% psychotropic drugs, 43.5% had hypertension, 6.5% diabetes, 51.9% abdominal obesity, and 89.3% had a partner (n = 193). A history of sexual abuse was present in 2.8%. Median total CS-10 score was 8.5 [9.75]. Overall, 93.3% (180/193) of women having a partner were sexually active, with a median coital frequency of 8 times per month. According to the CS-10, the three most prevalent menopausal symptoms were: aching in muscles and/or joints (70.8%), anxiety and nervousness (70.8%) and hot flashes/night sweats (54.2%). Factors associated with higher CS-10 scores were: female age and educational level, marital status, menopausal status, and marital sexual aspects. Partner educational level was inversely correlated (rho Spearman coefficient) with CS-10 total scores. However, multiple linear regression analysis found that higher total CS-10 scores (more severe menopausal symptoms) negatively correlated to coital frequency and positively correlated with peri- and postmenopausal status, parity, sedentary lifestyle and a history of sexual abuse. **Conclusion:** Menopausal symptoms in this mid-aged urban female Paraguayan sample were related to hormonal, sexual and other female aspects.

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### Impact of overweight and obesity in postmenopausal women

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**Objective:** This study aimed to investigate the association between overweight and obesity in postmenopausal women and different aspects related to health such as quality of life, physical activity, sleep quality and level of physical activity. **Methods:** An observational cross-sectional study was carried out during 2021-2022 in Spain in

postmenopausal women. Health-related quality of life was assessed using the 12-item short-form survey (SF-12). The Pittsburgh Sleep Quality Index (PSQI) was used to determine sleep quality, and the International Physical Activity Validated Questionnaire (IPAQ) was used for physical activity. A multivariate analysis was conducted using binary logistic regression to control the confounding bias. Results: A total of 395 postmenopausal women participated: 64.6% (n = 255) were overweight or obese. Obesity was associated with higher odds of having a lower quality of life (adjusted odds ratio [aOR] = 2.88; 95% confidence interval [CI]: 1.51-5.49), including alterations in physical role and function, pain and vitality. Postmenopausal women with overweight/obesity had higher odds of cardiovascular problems (aOR = 2.09; 95% CI: 1.04-4.19/aOR = 4.44; 95% CI: 2.12-9.31), and women with obesity were more likely to develop endocrine problems (aOR = 2.29; 95% CI: 1.10-4.75). Finally, women with obesity had higher odds of suffering urinary incontinence (aOR = 2.10; 95% CI: 1.10-4.01) or fecal incontinence (aOR = 2.70; 95% CI: 1.35-5.39), and pelvic pain (aOR = 2.33; 95% CI: 1.18-4.59). Conclusions: Obesity in postmenopausal women negatively affects perceived quality of life, sleep quality, physical activity, the development of cardiovascular problems and pelvic floor-related problems.

**Gen Hosp Psychiatry. 2023 Jul 15;84:125-141. doi: 10.1016/j.genhosppsy.2023.07.001.**

### **Impact of COVID-19 on health of menopausal women: A scoping review**

Xinyao Wu 1, Kang Wei Wong 1, Caroline Gurvich 2, Yanhong Dong 3

**Objective:** This scoping review aims to map and summarize the direct impact of contracting COVID-19, and the indirect consequences of the pandemic on the health of peri- and postmenopausal women. **Methods:** Searches for published studies were conducted in CINAHL, Cochrane, EMBASE, PubMed, Scopus, Web of Science, PsycINFO and ProQuest from inception to 26 Oct, 2022. Grey literature and reference lists of included studies were searched. Results are presented as a narrative synthesis and tables. **Results:** Thirty-eight studies were selected in this review. Overall, a majority of studies (n = 31) suggest that menopausal women were negatively impacted, while lesser studies (n = 21) concluded that they were not and some studies (n = 14) produced both negative and neutral results. Twenty-three studies presented on the direct health impact of COVID-19 infections on menopausal women. Eleven studies focused on the indirect impact of COVID-19 in terms of contact restriction measures on menopausal health during the pandemic compared to before the pandemic. Six studies described the different indirect impact of COVID-19 on health of menopausal women with various characteristics or lifestyles. **Conclusion:** The direct and indirect impacts of COVID-19 on menopausal women on physical, mental health and social wellbeing are largely negative.

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### **Prevalence of osteoporosis in patients with nephrolithiasis and vice versa: a cumulative analysis**

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**Purpose:** Nephrolithiasis is thought to be a risk factor for osteoporosis, but data assessing if osteoporosis predisposes to the risk of nephrolithiasis are lacking. The present study aims to investigate whether patients with nephrolithiasis have a prominently higher prevalence of osteoporosis than the controls and vice versa via a cumulative analysis. **Methods:** Four databases were used to detect the eligible studies. We calculated the relative risk (RR) with a 95% confidence interval (CI) to assess the combined effect. The methodologies for conducting this study followed the PRISMA guidelines and were registered in the PROSPERO (ID: CRD42023395875). **Results:** Nine case-control or cohort studies with a total of 454,464 participants were finally included. Combined results indicated that there was a significantly higher prevalence of osteoporosis in patients with nephrolithiasis as compared to the general population without nephrolithiasis (overall RR from six studies= 1.204, 95%CI: 1.133 to 1.28, P< 0.001; heterogeneity: I<sup>2</sup> = 34.8%, P= 0.162). Conversely, osteoporosis was significantly correlated to an increased risk of nephrolithiasis as compared to the controls without osteoporosis (overall RR from four studies= 1.505, 95%CI: 1.309 to 1.731, P< 0.001; I<sup>2</sup> = 89.8%, P< 0.001). Sensitivity analysis on the two categories validated the above findings. No significant publication bias was identified in this study. **Conclusions:** The present study highlighted a significantly high prevalence of osteoporosis in patients with nephrolithiasis and vice versa. This reciprocal association reminded the clinicians to conduct a regular follow-up assessment when managing patients with nephrolithiasis or osteoporosis, especially for the elderly.

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## Association between the Healthy Lifestyle Index and risk of multimorbidity in the Women's Health Initiative

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 Background: Multimorbidity, defined as the presence of two or more chronic health conditions, is increasingly common among older adults. The combination of lifestyle characteristics such as diet quality, smoking status, alcohol intake, physical activity, sleep duration, and body fat as assessed by body mass index (BMI) or waist circumference, and risk of multimorbidity is not well understood. Objective: We investigated the association between the healthy lifestyle index (HLI), generated by combining indicators of diet quality, smoking, alcohol, physical activity, sleep amount, and BMI, and risk of multimorbidity, a composite outcome that included cardiovascular disease, diabetes, cancer and fracture. Methods: We studied 62,037 postmenopausal women ages 50-79 years at enrollment in the Women's Health Initiative, with no reported history of cardiovascular disease, diabetes, cancer or fracture at baseline. Lifestyle characteristics measured at baseline were categorized and a score (0-4) was assigned to each category. The combined HLI (0-24) was grouped into quintiles, with higher quintiles indicating a healthier lifestyle. Multivariable adjusted estimates of hazard ratios (HR) and 95% confidence intervals (95%CI) for the risk of developing multimorbidity were obtained using Cox proportional hazard models. Results: Over an average follow-up period of 16.3 years, 5,656 women developed multimorbidity. There was an inverse association between the HLI levels and risk of multimorbidity (compared to the HLI\_1 stquintile: HR\_2 ndquintile=0.81 95%CI 0.74-0.83, HR\_3 rdquintile=0.77 95%CI 0.71-0.83, HR\_4 thquintile=0.70 95%CI 0.64-0.76, and HR\_5 thquintile=0.60 95%CI 0.54-0.66; p-trend<0.001). Similar associations were observed after stratification by age or BMI categories. Conclusions: Among postmenopausal women, higher levels of the HLI were associated with a reduced risk of developing multimorbidity.

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## Risk of Fracture After Bilateral Oophorectomy

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 Fragility fractures, resulting from low-energy trauma, occur in approximately 1 in 10 Danish women aged 50 years or older. Bilateral oophorectomy (surgical removal of both ovaries) may increase the risk of fragility fractures due to loss of ovarian sex steroids, particularly estrogen. We investigated the association between bilateral oophorectomy and risk of fragility fracture and whether this was conditional on age at time of bilateral oophorectomy, hormone therapy (HT) use, hysterectomy, physical activity level, body mass index (BMI), or smoking. We performed a cohort study of 25,853 female nurses ( $\geq 45$  years) participating in the Danish Nurse Cohort. Nurses were followed from age 50 years or entry into the cohort, whichever came last, until date of first fragility fracture, death, emigration, or end of follow-up on December 31, 2018, whichever came first. Cox regression models with age as the underlying time scale were used to estimate the association between time-varying bilateral oophorectomy (all ages,  $<51/\geq 51$  years) and incident fragility fracture (any and site-specific [forearm, hip, spine, and other]). Exposure and outcome were ascertained from nationwide patient registries. During 491,626 person-years of follow-up, 6600 nurses (25.5%) with incident fragility fractures were identified, and 1938 (7.5%) nurses had a bilateral oophorectomy. The frequency of fragility fractures was 24.1% in nurses who were  $<51$  years at time of bilateral oophorectomy and 18.1% in nurses who were  $\geq 51$  years. No statistically significant associations were observed between bilateral oophorectomy at any age and fragility fractures at any site. Neither HT use, hysterectomy, physical activity level, BMI, nor smoking altered the results.

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## Early menopause is associated with increased risk of heart failure and atrial fibrillation: A systematic review and meta-analysis

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Object: Menopause is linked to a higher risk of cardiovascular disease. However, it is unclear whether premature menopause (defined as menopause before the age of 40 years) or early menopause (defined as menopause before the age of 45 years) is associated with an increased risk of heart failure or atrial fibrillation. This study aimed to examine the most reliable evidence on the relationship between early menopause and the risk of heart failure and atrial fibrillation. Methods: A comprehensive literature search was performed in three online databases, Embase, Web of Science, and Pub Med, from database establishment to April 1, 2023. The results were presented as hazard ratios with 95 % confidence intervals. The I<sup>2</sup> statistic was employed to assess heterogeneity, and the Egger's test was used to determine publication bias. Results: Nine cohort studies were included in the analysis, with a total of 6,255,783

postmenopausal women. Women with premature and early menopause had an increased risk of heart failure (HR: 1.39, 95 % CI: 1.31-1.47; HR: 1.23, 95 % CI: 1.10-1.37, respectively) and atrial fibrillation (HR: 1.15, 95 % CI: 1.01-1.31; HR: 1.08, 95 % CI: 1.04-1.13, respectively) when compared with women who had undergone menopause after the age of 45 years. Subgroup analysis showed that, compared with early menopause, premature menopause has a stronger association with an increased risk of heart failure and atrial fibrillation. Conclusions: Women who undergo premature menopause or early menopause have a higher risk of heart failure and atrial fibrillation compared with women who undergo menopause in the normal age range. These reproductive factors need to be considered for measures that might reduce the risk of heart failure and atrial fibrillation.