

## Selección de Resúmenes de Menopausia

Semana del 16 al 22 de julio 2025

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**Nutr Res. 2025 Jun 25;140:102-115. doi: 10.1016/j.nutres.2025.06.008. Online ahead of print.**

### **Functional hypothalamic amenorrhea and dietary intervention: A systematic review to guide further research in amenorrheic women without overt eating disorder**

Anna Paola Amoroso, Simona Fiorini, Lenyca de Cassya Lopes Neri, Monica Guglielmetti, Anna Tagliabue, et al. Functional hypothalamic amenorrhea (FHA) is a multifactorial condition caused by psychological stress, energy deficit, weight loss, and excessive physical activity in the absence of adequate energy intake. Nutrition plays a key role in FHA treatment, with the primary intervention focused on correcting energy imbalance. Evidence regarding the exact amount of energy required to restore menses, the timeframe for recovery, and the optimal nutritional practices to support long-term recovery and optimize reproductive outcomes, remain limited. In this review, we aimed to assess if dietary intervention affects the nutritional status, food intake, nutrition knowledge, and hormonal milieu in women with FHA. We performed this review in accordance with the Preferred Reporting Items for Systematic Reviews and Meta-Analyses method, using the Population, Intervention, Control, Outcome, Study design criteria. A quality appraisal checklist for case series was used. The search included 4 databases and was restricted to English and Italian languages. Eleven articles were included. Five of these referred to the same population analyzed in 2 randomized controlled trials (RCTs); 3 nonrandomized controlled trials (NRCTs); and 1 nonrandomized uncontrolled trial, and 2 case series. Overall, the risk of bias was low for RCTs and moderate-to-high for NRCTs. Menstrual cycle can be restored in 1 to 12 months. One article indicated an additional 350 kcal/d energy intake to achieve this. However, the long-term impact of nutritional intervention alone remains unclear. Further research with a comprehensive, patient-centered approach is needed to confirm these findings and to clarify the possible role of nutritional counseling in FHA treatment.

**BMC Womens Health. 2025 Jul 18;25(1):357. doi: 10.1186/s12905-025-03901-1.**

### **Sexual dysfunction in women with breast cancer: a forgotten aspect among survivors**

Adele Isanazar 1, Zahra Akhlaghi 2, Fatemeh Nejatifar 3, Nastaran Mirfarhadi 4

**Introduction:** Breast cancer strongly affects sexual desires physical and sexual attractiveness. This study was conducted to assess sexual function and related factors among women with breast cancer. **Materials and methods:** This study was performed on 149 women with breast cancer diagnosed by an oncologist, and the demographic and clinical data were also recorded. The Female Sexual Function Index (FSFI) was used to assess sexual function in women. **Results:** The mean score of sexual function in patients was  $16.44 \pm 8.85$ . Among participants, 137 (91.9%) had sexual dysfunction. The most frequent sexual disorder was related to dissatisfaction (75.8%) and arousal problems (72.5%). All disorders of sexual functions were significantly higher among patients older than 51 years, with pre-high school education level, menopausal status, marriage duration  $28.40 \pm 9.46$  years, number of children  $\geq 3$ , and duration of breast cancer more than seven months ( $p < 0.05$ ). The frequency of all sexual disorders, except for sexual function, was significantly higher in patients diagnosed with stage III breast cancer ( $p < 0.05$ ). The complications in vaginal lubrication, and orgasm was significantly higher in those who underwent radiation therapy ( $p < 0.05$ ). The results of this logistic regression analysis indicate that age and the duration of breast cancer are significantly associated with the likelihood of sexual dysfunction in the women ( $p < 0.05$ ). **Conclusion:** This study reveals a high prevalence of sexual dysfunction among women with breast cancer, with a notably low mean sexual function score. Key factors contributing to these challenges include age, education level, menopausal status, and the duration of both breast cancer and marriage.

**Ann Med. 2025 Dec;57(1):2534095. doi: 10.1080/07853890.2025.2534095. Epub 2025 Jul 17.**

## **Impact of menopausal hormone therapy on influenza complications in women: a systematic assessment study**

Yu-Hsiang Shih<sup>1 2</sup>, Chiao-Yu Yang<sup>2 3</sup>, Chia-Chi Lung<sup>2 4 5</sup>

**Background:** Research on the effects of Menopausal Hormone Therapy (MHT) on influenza outcomes has been limited. **Methods:** This retrospective cohort study utilized data from the TriNetX U.S. Collaborative Network between January 1, 2010, and December 31, 2019, targeting individuals aged 46 to 60 diagnosed with influenza who had not received the influenza vaccination in the prior year. Participants were divided into two cohorts: the MHT cohort, which included individuals who had used estrogen within the preceding 3 months, and the non-MHT cohort, consisting of those who had not used estrogen during the same period. Propensity score matching (PSM) was employed to balance key demographic and clinical variables, including age, race, hypertension, diabetes mellitus, dyslipidemia, pulmonary diseases, and heart diseases. The primary analysis was the assessment of respiratory morbidity within three months following the influenza diagnosis, while secondary analysis included the evaluation of patients with pre-existing lung or heart diseases and those who received antiviral medication. **Results:** After PSM, each cohort included 15,136 women. Women aged 46-60 who used MHT experienced a significant reduction in lung complications, with the risk of influenza pneumonia or respiratory failure decreasing by approximately 40%. However, among patients with chronic conditions such as diabetes, hypertension, hyperlipidemia, lung disease, or heart disease, MHT did not demonstrate a clear protective effect. Similarly, in patients who received antiviral treatment following influenza infection, the MHT group showed no significant reduction in the risk of respiratory complications. **Conclusion:** In conclusion, MHT was associated with a significant reduction in the risk of lung complications in women aged 46-60 without chronic conditions.

**Prostaglandins Other Lipid Mediat. 2025 Jul 15;107024. doi: 10.1016/j.prostaglandins.2025.107024.**

## **Exploring the Diverse Signaling Mechanisms of 17 $\beta$ -Estradiol Deficiency and Replacement: Impacts on Cognitive Dysfunction in a Post-Menopausal Experimental Model**

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This study aimed to investigate the pathways affected by estradiol deficiency during menopause and how these pathways are modified with 17 $\beta$ -estradiol replacement to mitigate menopause-related changes, particularly in cognitive function and neuroinflammation, which are linked to the risk of dementia. Forty female white albino rats were divided into four groups: control, sham, ovariectomized (OVX), and OVX rats treated with 17 $\beta$ -estradiol. Cognitive tests using the Morris Water Maze assessed spatial learning and memory, while neurotransmitter levels were analyzed via HPLC. Serum levels of estrogen, NGF, A $\beta$ , and PSD-95 were measured using ELISA. Additionally, RT-PCR was used to evaluate the expression of Cx43, LRP, and RAGE, and aromatase expression was assessed via immunohistochemistry. Results showed that estrogen deficiency in OVX rats led to significant impairments in cognition, neurotransmitter signaling, and neurotrophic factors. Reduced NGF and altered PSD-95 levels indicated compromised neuronal health and synaptic plasticity. Increased aromatase expression reflected reduced local estrogen synthesis, potentially contributing to cognitive deficits. Upregulated RAGE and altered LRP expression suggested inflammatory and neurodegenerative processes, while decreased Cx43 expression and modified A $\beta$  processing indicated impaired intercellular communication. Overall, the findings highlight the detrimental effects of estrogen deficiency on brain function and suggest that 17 $\beta$ -estradiol replacement may mitigate menopause-related cognitive decline and neuroinflammation.

**Obstet Gynecol. 2025 May 2;146(2):223-232. doi: 10.1097/AOG.0000000000005907.**

## **Menopausal Symptom Management in Patients After Risk-Reducing Oophorectomy**

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Patients with BRCA1/2 mutations face difficult decisions on pursuing risk-reducing (and lifesaving) surgery, especially because of concerns about the safety of menopausal hormone therapy and breast cancer risk. However, observational data suggest that systemic menopausal hormone therapy does not elevate breast cancer risk among patients with pathogenic mutations with intact breasts who have undergone risk-reducing bilateral salpingo-oophorectomy (BSO) before age 45 years. Accordingly, such individuals should be considered for menopausal

hormone therapy to improve quality of life and to decrease health risks associated with premature menopause. Given emerging data on the potential of estrogen-only therapy to reduce breast cancer risk, clinicians caring for women with BRCA1/2 mutations could consider offering hysterectomy along with BSO as part of risk-reducing surgery.

**Orthop Surg. 2025 Jul 16. doi: 10.1111/os.70115. Online ahead of print.**

## **Anti-Osteoporosis Treatment Alleviates Osteoarthritis Symptoms and Partially Reverses Disease Progression**

Ziyang Feng 1, Heyong Yin 1, Yufei Ding 1, Xun Sun 2, Tao Zhang 2, Ai Guo 1

**Objective:** Osteoarthritis (OA) and osteoporosis (OP) are highly prevalent in postmenopausal women; however, their relationship remains complex and controversial. This study aimed to investigate whether anti-OP treatment alleviates osteoarthritis symptoms and reverses disease progression. **Methods:** This prospective clinical study enrolled 30 postmenopausal women diagnosed with OP and concomitant knee OA who visited our outpatient clinic between January and June 2023. Patients received anti-osteoporotic treatment comprising calcium carbonate, vitamin D3, and alendronate (ALN). BMD, WOMAC, and VAS scores were assessed at 6 and 12 months. In animal studies, OP was induced in rats by ovariectomy, followed by OA induction via anterior cruciate ligament sectioning and meniscectomy. ALN treatment was administered for 8 weeks, and evaluations of behavior, macroscopic appearance, pathology, and subchondral bone microstructure were performed 8 weeks after OA induction. One-way ANOVA was used for multiple group comparisons, and Spearman's rank correlation was used to assess associations. **Results:** Clinical outcomes demonstrated that one-year anti-OP therapy achieved dual therapeutic benefits: a 9.3% increase in bone mineral density (BMD) was accompanied by a 36.54% reduction in knee OA symptoms. Statistical analysis revealed a strong positive correlation between BMD improvement and symptomatic relief ( $r = 0.76$ ,  $p < 0.05$ ). In the animal model, OP markedly accelerated OA progression, leading to more severe cartilage damage, as confirmed by symptoms, macroscopic cartilage appearance, and histological evaluations. Micro-CT analysis revealed abnormal subchondral bone microarchitecture in OP animals. Notably, ALN treatment partially reversed OA progression, as evidenced by reduced cartilage degeneration, improved subchondral bone microstructure, and enhanced bone remodeling. **Conclusion:** Anti-OP treatment alleviates knee OA symptoms in OP patients. Postmenopausal OP accelerates OA progression, while anti-OP therapy can partially reverse this effect. These findings highlight the importance of anti-OP treatment in managing both conditions.

**Rev Med Chil. 2025 Jul;153(7):485-491. doi: 10.4067/s0034-98872025000700485.**

## **Evaluation of the FRAX® Tool for Identifying Menopausal Women Under 65 Eligible for Bone Densitometry Screening**

Bernardita Blumel, Andrea Maluenda, Francisca Bahamondes, María Paz Veloso, Juan Andrés Ortiz, Iván Rojas

Osteoporosis have been defined as the decrease in bone resistance that predisposes to fragility fractures. 50% of women over 50 years of age will suffer an osteoporotic fracture during their lifetime. Densitometry allows detecting mineral density and women with osteoporosis. The FRAX tool combines risk factors and permit calculating the high risk of major fracture than 10 years, the cutoff point in Chile being 3.2%. **Aim:** To assess the ability of the FRAX tool to identify osteoporosis in menopausal women under 65 years of age. **Materials and methods:** Retrospective study of patients aged 50 to 64 years treated in the climacteric program at Clínica Santa María between 2019 and 2022. **Results:** A total of 264 women had bone densitometry (DXA) and FRAX assessment at baseline. The mean age was 57.4 years ( $SD \pm 4$ ). A total of 53 patients had a calculated 10-year major osteoporotic fracture risk  $\geq 3.2\%$ . Bone densitometry with a T-score  $< -2.5$  was found in 33 women. The sensitivity of FRAX to identify women with osteoporosis on DXA was 24.2%, detecting only 8 of the 33 women with T-score  $< -2.5$ . **Conclusion:** Our results show that the FRAX alone fails to identify the majority of patients under 65 years of age at high risk of fracture who benefit of bone densitometry. More studies are needed to characterize menopausal women younger than 65 years with a T-score less than -2.5 in DO and a FRAX MOF risk less than 3.2%.

**Sci Rep. 2025 Jul 15;15(1):25450. doi: 10.1038/s41598-025-01768-8.**

## **Impact of sex and menopausal hormonal therapy on cardiovascular diseases in people with diabetes or prediabetes**

Do Kyeong Song 1, Yeon-Ah Sung 1, Young Sun Hong 1, Min-Ho Kim 2, Hyejin Lee 3

People with diabetes or prediabetes face a higher risk of cardiovascular events. However, the impact of sex and menopausal hormone therapy on cardiovascular disease (CVD) in these individuals remains unclear. We examined cardiovascular event risk and the association between menopausal hormone therapy and CVD risk in female Koreans with diabetes or prediabetes. We utilized the National Health Insurance Service database from 2009 to 2019. People undergoing hemodialysis or with an eGFR < 15 mL/min/1.73 m<sup>2</sup> were excluded. We analyzed 1,313,591 people with prediabetes and 890,184 people with diabetes without a history of heart failure. Additionally, we examined 1,180,576 people with prediabetes and 673,688 people with diabetes without a history of acute myocardial infarction or stroke. Hazard ratios (HRs) for CVD risk were calculated using Cox proportional hazards models. Women with diabetes had a higher risk of heart failure compared to men with diabetes (HR: 1.095, 95% CI 1.068 to 1.123), a pattern also seen in people with prediabetes (HR: 1.150, 95% CI 1.118 to 1.183). Conversely, women with diabetes had a lower risk of acute myocardial infarction (HR: 0.507, 95% CI 0.486 to 0.528) and stroke (HR: 0.787, 95% CI 0.771 to 0.804) compared to men with diabetes, which was similarly observed in people with prediabetes. Hormone therapy was linked to a reduced risk of ischemic stroke in postmenopausal women with diabetes (HR: 0.761, 95% CI 0.589 to 0.983) and prediabetes (HR: 0.659, 95% CI 0.488 to 0.889). Women with diabetes or prediabetes have a higher risk of heart failure than men. More intensive screening and management of heart failure are needed, especially for these women. Conversely, women with diabetes or prediabetes have a lower risk of acute myocardial infarction and stroke compared to men. Menopausal hormone therapy may help prevent ischemic stroke in postmenopausal women with diabetes or prediabetes.