Selección de Resúmenes de Menopausia

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Physical activity in Alzheimer's disease prevention: Sex differences and the roles of BDNF and irisin

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Alzheimer's disease (AD) disproportionately affects women, with postmenopausal hormonal changes contributing to elevated risk. Physical exercise is a promising, non-pharmacological strategy to mitigate cognitive decline and AD progression. Brain-derived neurotrophic factor (BDNF) and irisin are key molecular mediators of exercise-induced brain health and protection against AD pathology by promoting synaptic plasticity, neurogenesis, and reducing amyloidosis, tau pathology, and neuroinflammation in sex-specific mechanisms. This review explores sex and gender influences on exercise outcomes and their interaction with FNDC5/irisin and BDNF signaling pathways in the context of AD prevention. We highlight emerging evidence on the interplay between exercise, sex, and neuroprotective pathways, emphasizing the need for sex-sensitive research designs to advance precision approaches for AD prevention.

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Association between duration, initiation time, routes, and formulations of menopausal hormone therapy use and Alzheimer disease in women: A systematic review and meta-analysis

Qixiang Song 1, Qi Wang 2, Dang Wu 3, Zhe Zhang 1, Mengyao Chen 1, Chunying Fu 1, et al.

The purpose of this study was to investigate the effect of menopausal hormone therapy (MHT) on the risk of Alzheimer disease (AD) by examining its duration, initiation time, routes of administration, and formulations through systematic review and meta-analysis. PubMed, Embase, Cochrane Library, Web of Science, and Scopus were searched on March 15, 2023. We selected cohort studies, case-control studies, and randomized controlled trials on the effect of MHT on AD in women. Odds ratio, relative risk, and hazard ratio were extracted. Random-effect models were used to estimate the polled estimates (relative risk [RR] or odds ratio [OR]) and their 95% confidence interval (95% CI). We included 3 randomized controlled trials, 12 cohort studies, and 16 case-control studies. A total of 7,710,379 women were included. Pooled estimates showed that MHT use for 3-5 years (cohort, RR = 0.56, 95% CI: 0.34-0.93) or initiation within 5 years of menopause (cohort, RR = 0.70, 95% CI: 0.49-0.99) reduced the risk of AD. Oral administration reduced AD risk (cohort, RR = 0.42, 95% CI: 0.40-0.44). Combining estrogen and progesterone (case-control, OR = 1.13, 95% CI: 1.05-1.21) or progesterone only (case-control, OR = 1.13, 95% CI: 1.10-1.17) increases AD risk. Tibolone increased AD risk (cohort, RR = 1.04, 95% CI: 1.01-1.07; case-control, OR = 1.07, 95% CI: 1.01-1.14). MHT-protected apolipoprotein E genotype 4 carriers (cohort, RR = 0.13, 95% CI: 0.02-0.90), depressed populations (cohort, RR = 0.85, 95% CI: 0.80-0.90), and Americas (cohort, RR = 0.54, 95% CI: 0.37-0.80; case-control, OR = 0.68, 95% CI: 0.47-0.99) from AD. Using MHT early (within 5 years after menopause) for about 5 years may protect against AD. However, combining estrogen with progesterone, or using progesterone only, could increase AD risk. Oral MHT methods are more effective than transdermal ones in reducing this risk. SIGNIFICANCE STATEMENT: Menopausal hormone therapy (MHT) use within 5 years after menopause could offer protective benefits against Alzheimer disease (AD). A combination of estrogen and progesterone, using progesterone only or tibolone usage was connected with an elevated risk of AD. Oral MHT was more effective than transdermal methods in lowering AD risk. MHT

lowered AD risk in apolipoprotein E genotype 4 allele carriers, individuals with depression, and Americans. MHT regimens should be highly personalized.

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Influence of Intermittent Fasting on Body Composition, Physical Performance, and the Orexinergic System in Postmenopausal Women: A Pilot Study

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Objective: This study aims to evaluate the effects of different nutritional strategies, specifically intermittent fasting (IF) combined with high-intensity interval training (HIIT) versus a low-calorie diet (LCD), on body composition, physical performance, and the orexinergic system in postmenopausal women. Methods: A randomized controlled trial involving thirty postmenopausal women (mean age 57.50 ± 6.50 years) was conducted over eight weeks, comparing the two dietary approaches alongside an 8-week HIIT program. Body composition was assessed using bioelectrical impedance analysis (BIA) and dual-energy X-ray absorptiometry (DEXA). Performance metrics included handgrip strength and the 6-min walking test (6MWT). Salivary samples were analyzed for Orexin-A (OX-A) levels pre- and post-intervention. Results: Significant improvements in health metrics, such as heart rate (HR) and endurance, were found, with mean HR changes showing a significant difference ($F = 5.943$, $p = 0.033$) between the groups at T1. Orexin-A levels reflected significant metabolic regulation shifts in relation to other variables, showing a change from baseline to post-intervention values at T1 ($F = 10{,}931$, $p = 0.033$). Flexibility (sit and reach) significantly improved by 6% ($p < 0.05$), as well as VO2 max (10%, $p < 0.05$), both highlighted as key predictors of overall health outcomes. Additionally, Cohen's d analyses indicated that the dietary groups exhibited notable differences in endurance, with the LCD group showing a Cohen's d of -0.90, suggesting a large effect size compared with the control group. Conclusions: The combination of IF and HIIT is an effective nutritional strategy for enhancing body composition and physical performance in postmenopausal women, potentially mediated by changes in the orexinergic system. Further research is warranted to explore long-term effects and underlying mechanisms.

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Perimenopausal depression: Targeting inflammation and oxidative stress (Review)

Yang Yu 1, Tianyang Yu 1, Kaili Liu 1, Yushuai Li 1, Yifeng Luan 1, Tianyi Yang 2, Wenzhong Li, et al.

Depressive disorder is a highly disabling condition that affects more than 300 million individuals worldwide, with women affected at a higher rate than men. With the aging of the population, the incidence of perimenopausal depression has risen markedly, seriously jeopardizing women's physical and mental health. Symptoms of perimenopausal depression include feelings of depression, stress, anxiety and endocrine dysfunctions, particularly hypogonadism and senescence. During perimenopause, estrogen and progesterone levels fluctuate erratically, adding to the risk of developing depression associated with perimenopause. As a result of these hormonal changes, proinflammatory mediators are produced and oxidative stress is induced, which finally leads to progressive neuronal damage. The present study mainly reviewed roles of neuroinflammation in perimenopausal depression and explained potential anti-inflammatory and anti-oxidative stress mechanisms for clinically effective therapeutic treatment.

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Patient-reported Impact of Menopause and Hormone Replacement Therapy on Psoriasis

Bo Young Chung # 1, Chandler Johnson # 2, Jin Seo Park 3, Kathryn Haran 2, Payton Smith 2, et al.

Menopause's impact on psoriasis remains unclear. This study's aim was to gather information on patient perception of the impact of menopause and hormone replacement therapy (HRT) on psoriasis. This survey-based study analysed 139 postmenopausal women with psoriasis from the USA and South Korea. In the combined cohort, most women reported menopause either had no effect on their psoriasis (41.7%) or worsened their psoriasis (33.1%). In the combined cohort, a majority of women (73.4%) reported that there was no change in their psoriasis treatment with menopause. Of the women receiving HRT (n = 29), the majority reported no effect on psoriasis (62.1%). In multivariate analysis, alcohol consumption was protective against worsening of psoriasis with menopause (OR 0.19 [95% CI 0.06-0.59], p = 0.004). In summary, this study showed that menopause is likely to have a neutral to negative effect on psoriasis. HRT was found to have no effect on the course of psoriasis in the majority of cases.

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Menopause, women and the workplace

Karen Walker-Bone 1, Susan Davis 2

This invited review is a synthesis of a plenary lecture presented at International Menopause Society Conference in Melbourne 2024. The focus was to set the historic context within which research about women in the workplace must be approached. It is exciting for occupational health researchers to see expansion of the evidence about health and work but we urge menopause and work researchers to collaborate with occupational health colleagues. The growing literature suggests that most women do not experience problems coping with their menopause in the workplace. Most research, however, fails to consider any workplace factors or even the nature of the job women are needing to do. Where studies have focused on occupational groups, they have focused on nurses or other professional/leadership groups. So far, it appears that women's ability to cope is influenced by the number of symptoms, severity of symptoms, and workplace and personal psychosocial factors. However, the problems with coping may be greater for disadvantaged women doing less well-paid work with less flexibility and autonomy. The same women probably have less access to appropriate advice, treatment and support. Researchers must focus on women at highest risk and take a nuanced approach to optimize support without increasing gender-based discrimination.