



Selección de Resúmenes de Menopausia

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A Role for Estrogen in Skin Ageing and Dermal Biomechanics

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The skin is the body's primary defence against the external environment, preventing infection and desiccation. Therefore, alterations to skin homeostasis, for example with skin ageing, increase susceptibility to skin disease and injury. Skin biological ageing is uniquely influenced by a combination of intrinsic and extrinsic (primarily photoageing) factors, with differential effects on skin structure and function. Interestingly, skin architecture rapidly changes following the menopause, as a direct result of reduced circulating 17 β -estradiol. The traditional clinical benefit of estrogens are supported by recent experimental data, where 17 β -estradiol supplementation prevents age-related decline in the skin's structural and mechanical properties. However, the off-target effects of 17 β -estradiol continue to challenge therapeutic application. Here we discuss how ageing alters the physiological and structural properties of the dermal extracellular matrix, and explore how estrogen receptor-targeted therapies may restore the mechanical defects associated with skin ageing.

Geburtshilfe Frauenheilkd. 2021 May;81(5):549-554.doi: 10.1055/a-1390-4353. Epub 2021 May 20.

Hormone Replacement Therapy After Gynaecological Malignancies: a Review Article

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Rapid advances in oncology have led to an increased survival rate in cancer patients, who live long enough to reach the natural age of menopause or experience the end of gonadal function as a side effect of oncological treatment. Survivors after gynaecological malignancies are a major challenge as these diseases are hormone-dependent and hormone replacement therapy (HRT) possibly increases the risk of recurrence. This article is based on a selective literature search for relevant studies and guidelines regarding HRT after gynaecological malignancies and provides a broad overview of current research. The data for assessing the oncological safety of HRT after gynaecological malignancy are insufficient overall. According to current knowledge, HRT is fundamentally contraindicated after breast and endometrial cancer. After ovarian cancer, HRT can be used after assessment of the risks and benefits, while there is usually no contraindication to HRT after vulvar, vaginal or cervical cancer.

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Weight regulation in menopause

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Importance and objective: Obesity is a chronic disease of epidemic proportions that continues to affect millions of Americans each year. Postmenopausal women are particularly affected by obesity and have higher rates of severe obesity when compared with their male counterparts. The prevalence of obesity in this population is linked to increased morbidity and mortality and promotes the development and progression of numerous obesity-related health conditions. This review examines the epidemiology, pathophysiology, clinical assessment, and treatment of postmenopausal women with obesity. Methods: We have reviewed relevant and up-to-date literature in the MEDLINE database to represent the current understanding of obesity and its effects in this patient population. Articles published between the years 2000 and 2020 were selected for review to represent the most up-to-date evidence on the topic. Search terms used in the PubMed search included women, obesity, menopause, aging, mid-age women, metabolism, weight gain, treatment of obesity, weight loss, bariatric surgery, weight loss medications, diet, physical activity, and behavior modification. Discussion and conclusion: Obesity is a complex, chronic, relapsing disease that requires comprehensive assessment and treatment. Obesity is linked to hormonal, lifestyle, and environmental changes that occur during the menopausal transition, and it increases the risk for cardiometabolic disease. The utilization of appropriate clinical evaluation methods to identify obesity in postmenopausal women, and the implementation of effective lifestyle, pharmacotherapeutic, and surgical interventions, have the propensity to reduce the deleterious effects of obesity in this population.

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Global cross-sectional survey of women with vasomotor symptoms associated with menopause: prevalence and quality of life burden

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Objective: To determine prevalence and health-related quality of life (HRQOL) of moderate-to-severe vasomotor symptoms (VMS) in postmenopausal women in Europe, the US, and Japan, and among subgroups of women not taking hormone therapy (HT). **Methods:** Screening surveys were sent to a random sample of women aged 40 to 65 years; full questionnaires followed to those who completed them and met inclusion criteria. Women with successfully treated VMS, breast cancer, or on HT for medical conditions were excluded. The Menopause-Specific QOL (MENQOL) and Work Productivity and Activity Impairment (WPAI) questionnaires were included in the questionnaire. **Results:** Of 25,161 women completing the screening survey, 11,771 were postmenopausal and 3,460 met inclusion criteria and completed the full questionnaire. Prevalence of moderate-to-severe VMS was 40%, 34%, and 16% in Europe, the US, and Japan, respectively. A large proportion were HT averse, albeit eligible (Europe 56%, US 54%, Japan 79%). In total, 12%, 9%, and 8% in Europe, the US, and Japan, respectively, were HT-contraindicated. A high proportion were HT-cautious (Europe 70%, US 69%, Japan 52%). Most common menopausal symptoms reported in the MENQOL were feeling tired or worn out (Europe/US 74%, Japan 75%), aching in muscles and joints (Europe 69%, US 68%, Japan 61%), difficulty sleeping (Europe 69%, US 66%, Japan 60%), and hot flashes (Europe 67%, US 68%, Japan 62%). Overall, the most bothersome symptom was weight gain. As measured by the WPAI, hot flashes and night sweats had a greater impact on daily activities than on working activities. **Conclusions:** A high proportion of women experienced moderate-to-severe VMS, with associated symptoms impacting QOL.

J Bone Miner Res. 2021 May 25. doi: 10.1002/jbmr.4334. Online ahead of print.

A Comparison of Bone-Targeted Exercise With and Without Antiresorptive Bone Medication to Reduce Indices of Fracture Risk in Postmenopausal Women With Low Bone Mass: The MEDEX-OP Randomized Controlled Trial

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The goal of the MEDEX-OP trial was to compare the efficacy of a known effective high-intensity resistance and impact training (HiRIT) with a low-intensity exercise control (Buff Bones® [BB]), alone or in combination with antiresorptive bone medication, on indices of fracture risk (bone mass, body composition, muscle strength, functional performance), compliance, and safety. Primary study outcomes were 8-month change in lumbar spine (LS) and total hip (TH) bone mineral density (BMD). Healthy postmenopausal women with low bone mass (T-score ≤ -1.0) on or off stable doses (≥ 12 months) of antiresorptive medication were recruited. A total of 115 women (aged 63.6 ± 0.7 years; body mass index [BMI] 25.5 kg/m^2 ; femoral neck [FN] T-score -1.8 ± 0.1) were randomly allocated to 8-month, twice-weekly, 40-minute HiRIT (5 sets of 5 repetitions, $>80\%$ to 85% 1 repetition maximum) or BB (low-intensity, Pilates-based training), stratified by medication intake, resulting in four groups: HiRIT (n = 42), BB (n = 44), HiRIT-med (n = 15), BB-med (n = 14). HiRIT improved LS BMD ($1.9 \pm 0.3\%$ versus $0.1 \pm 0.4\%$, $p < 0.001$) and stature ($0.2 \pm 0.1 \text{ cm}$ versus $-0.0 \pm 0.1 \text{ cm}$, $p = 0.004$) more than BB. Both programs improved functional performance, but HiRIT effects were larger for leg and back muscle strength and the five times sit-to-stand test ($p < 0.05$). There was a positive relationship between maximum weight lifted and changes in LS BMD and muscle strength in the HiRIT groups. Exploratory analyses suggest antiresorptive medication may enhance exercise efficacy at the proximal femur and lumbar spine. Exercise compliance was good ($82.4 \pm 1.3\%$) and both programs were well tolerated (7 adverse events: HiRIT 4; BB 3). HiRIT improved indices of fracture risk significantly more than Buff Bones®. More trials combining bone medication and bone-targeted exercise are needed.

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Conjugated equine estrogen used in postmenopausal women associated with a higher risk of stroke than estradiol

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This study aimed to evaluate the risk of ischemic stroke (IS) in hormone therapy (HT) with oral conjugated equine estrogen (CEE) and estradiol (E2) in postmenopausal women in Taiwan. A retrospective cohort study was conducted using the Taiwan National Health Insurance Research Database, a population-based healthcare claims dataset. Eligible women, aged 40-65 years, who received HT with E2 and CEE orally were enrolled. The primary outcome was IS.

Propensity score matching with menopausal age and comorbidities was used. Cox proportional hazard regression models were used to calculate the incidence and hazard ratios (HRs) for IS. The mean menopausal ages of the E2 and CEE groups were 50.31 ± 4.99 and 50.45 ± 5.31 years, respectively. After adjusting for age and comorbidities, the incidence of IS was 1.17-fold higher in the women treated with CEE than in those treated with E2 (4.24 vs. 3.61/1000 person-years), with an adjusted HR (aHR) of 1.23 (95% confidence interval [CI] 1.05-1.44). Moreover, HT with CEE initiated within 5 years of menopause had a higher HR than E2 (aHR = 1.20; 95% CI 1.02-1.42). In conclusion, HT with oral CEE might be associated with a higher risk of IS than E2 in postmenopausal Taiwanese women. The use of HT with CEE should be cautioned with the risk of IS.

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A systematic review of the effectiveness of Pilates on pain, disability, physical function, and quality of life in older adults with chronic musculoskeletal conditions

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Objectives: This systematic review aims to evaluate the effectiveness and delivery of Pilates to reduce pain and disability and to improve physical function and quality of life in middle-aged to older adults with a range of chronic musculoskeletal conditions. **Methods:** Searches were conducted using CENTRAL, CINAHL, SCOPUS, Pubmed, PsycInfo, Web of Science Core Collection and Google Scholar. Inclusion criteria were controlled trials and observational studies, population mean age 50 years and over with chronic musculoskeletal conditions, using mat-based Pilates exercise. Outcomes included pain, disability, physical function and quality of life. **Results:** Seven studies were included, with a combined total sample of 397 participants (73% female). Pilates was significantly effective ($p \leq 0.05$) for reducing back pain, neck pain and pain associated with knee osteoarthritis and osteoporosis. Additional significant disability, physical functioning and quality of life effects were found for back pain, osteoporosis, and knee OA. Overall Pilates was as effective as other exercise. Adherence to group exercise was good, but poor for home exercise. No significant adverse effects were reported. **Conclusion:** Pilates is a safe and effective exercise intervention for adults over 50 with a diverse range of musculoskeletal conditions which may otherwise put them at risk of becoming sedentary. Although no overall significant superiority was found over other exercise, participants reported psychosocial benefits particular to the Pilates group exercise, with enjoyment a possible positive factor in adherence. Further research on Pilates exercises for various pathologies could inform teaching and improve engagement with older adults, including those with chronic conditions.

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Association between menopausal hormone therapy and risk of neurodegenerative diseases: Implications for precision hormone therapy

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Introduction: The impact of menopausal hormone therapy (HT) on age-associated Alzheimer's and neurodegenerative diseases (NDDs) remains unresolved. To determine the effect of HT, formulation, type, and duration on risk of NDDs, a retrospective analysis was performed using a 10-year Humana claims dataset. **Methods:** Study population included women aged 45 years or older with or without claim records of HT medications. Patients diagnosed with NDDs including Alzheimer's disease (AD), Parkinson's disease (PD), dementia, multiple sclerosis (MS), and amyotrophic lateral sclerosis (ALS) were identified. Relative risk (RR) ratios and 95% confidence intervals (CI) for combined NDDs, or AD, PD, dementia, MS, and ALS were determined. Cumulative hazard ratios were determined to investigate the association between HT and NDDs at different age groups. **Results:** In 379,352 women with or without claim records of HT, use of HT was associated with significantly reduced risk for combined NDDs (RR 0.42, 95% CI 0.40-0.43, $P < 0.001$). Average follow-up time was 5.1 [2.3] years. Formulations containing natural steroids 17 β -estradiol and/or progesterone were associated with greater reduction in NDD risk. Oral- HT users showed significantly reduced RRs (0.42, 0.41-0.44, $P < 0.001$) for combined NDDs compared to non-HT users. The RRs for transdermal-HT users were significantly decreased for all-cause dementia (0.73, 0.60-0.88, $P = 0.001$) and MS (0.55, 0.36-0.84, $P = 0.005$). Greatest reduction in risk of NDD, AD, and dementia emerged in patients aged 65 years or older. Further, the protective effect of long-term therapy (>1 year) on combined NDDs, AD, PD, and dementia was greater compared to short-term therapy (≤ 1 year). **Discussion:** HT was associated with reduced risk of all NDDs including AD and dementia, with greater duration of therapy and natural steroid formulations associated with greater efficacy. These findings advance precision HT to prevent NDDs including AD.