



## Selección de Resúmenes de Menopausia

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**Maturitas. 2017 Sep; 103:78-88. doi: 10.1016/j.maturitas.2017.06.029. Epub 2017 Jun 27.**

### **Laser therapy for the genitourinary syndrome of menopause. A systematic review and meta-analysis.**

Pitsouni E, Grigoriadis T, Falagas ME, Salvatore S, Athanasiou S.

This study aimed to identify and then synthesize all available data regarding the efficacy of laser therapy for postmenopausal women with genitourinary syndrome of menopause (GSM) with/without urinary incontinence (UI). PubMed, Scopus, Web of Science, Cochrane Library and ClinicalTrials.gov were searched in October 2016. The keywords were "laser genitourinary syndrome of menopause", "laser vulvovaginal atrophy", "laser vaginal atrophy" and "laser women incontinence". Quality of reporting and risk of bias of the included studies were assessed according to STROBE and MINORs checklists, respectively. Quality of the body of evidence was evaluated with the GRADE approach. Fourteen studies involving 542 participants were included in this systematic review and meta-analysis. All GSM symptoms (dryness/dyspareunia/itching/burning/dysuria/urgency/frequency) and UI decreased significantly and consistently in all available publications. The pooled mean differences for the various symptoms were: dryness -5.5(95%CI:-6.7,-4.4;7studies;I2:0%), dyspareunia -5.6(95%CI:-6.8,-4.5;7 studies;I2:0%), itching -4(95%CI:-5.7,-2.2;6 studies;I2:79%), burning -3.9(95%CI:-5.9,-2;6 studies;I2:87%), dysuria -2.9(95%CI:-5.1,-0.7;4 studies;I2:90%) and UI -4.9(95%CI:-6.4,-3.4;2 studies;I2:0%). Because urgency/frequency was assessed by different methodologies the data could not be meta-analyzed. Furthermore, KHQ, UDI-6, MCS12/PCS12, FSFI, overall sexual satisfaction and measurements of the effect of laser therapy on the local pathophysiology improved significantly. In conclusion, laser therapy for postmenopausal women with GSM appears promising. It may reduce symptom severity, improve quality of life of postmenopausal women and restore the vaginal mucosa to premenopausal status. However, the quality of the body of evidence is "low" or "very low" and, thus, evidence-based modification of current clinical practice cannot be suggested.

**Maturitas. 2017 Sep; 103:60-64. doi: 10.1016/j.maturitas.2017.06.026. Epub 2017 Jun 23.**

### **The role of estrogen in cutaneous ageing and repair.**

Wilkinson HN, Hardman MJ.

Combined advances in modern medical practice and increased human longevity are driving an ever-expanding elderly population. Females are particularly at risk of age-associated pathology, spending more of their lives in a post-menopausal state. Menopause, denoted by a rapid decline in serum sex steroid levels, accelerates biological ageing across the body's tissues. Post-menopause physiological changes are particularly noticeable in the skin, which loses structural architecture and becomes prone to damage. The sex steroid most widely discussed as an intrinsic contributor to skin ageing and pathological healing is 17 $\beta$ -estradiol (or estrogen), although many others are involved. Estrogen deficiency is detrimental to many wound-healing processes, notably inflammation and re-granulation, while exogenous estrogen treatment widely reverses these effects. Over recent decades, many of the molecular and cellular correlates to estrogen's beneficial effect on normal skin homeostasis and wound healing have been reported. However, disparities still exist, particularly in the context of mechanistic studies investigating estrogen receptor signalling and its potential cellular effects. New molecular techniques, coupled with increased understanding of estrogen in skin biology, will provide further opportunities to develop estrogen receptor-targeted therapeutics.

**Osteoporos Int. 2017 Aug 2. doi: 10.1007/s00198-017-4175-0. [Epub ahead of print]**

### **Effectiveness of anti-osteoporotic drugs to prevent secondary fragility fractures: systematic review and meta-analysis.**

Saito T, Sterbenz JM, Malay S, Zhong L, MacEachern MP, Chung KC.

Patients with osteoporotic fractures have an increased risk for secondary fractures. However, a rigorous study that assesses the effectiveness of individual osteoporotic drugs in preventing subsequent fractures is lacking. The purpose of this review was to analyze the effectiveness of anti-osteoporotic drugs in preventing secondary fractures. We searched for randomized controlled trials that showed the incidence of secondary fractures while using anti-osteoporotic drugs (bisphosphonates, selective estrogen receptor modulators, parathyroid hormone (PTH), or calcitonin) in MEDLINE,

Embase.com, and Cochrane Central Register databases. We estimated risk ratios (RR) and numbers needed to treat (NNT) to prevent secondary fractures. Twenty-six studies met our eligibility criteria. There was a significant reduction in RR (0.38-0.77) after the use of anti-osteoporotic drugs for secondary vertebral fractures. Bisphosphonates and PTH significantly reduced the risk of a secondary non-vertebral fracture (RR 0.59 and 0.64). PTH needed the fewest number of patients to be treated to prevent a secondary vertebral fracture (NNT: 56). Our study demonstrated the effectiveness of anti-osteoporotic agents included in our systematic review in preventing secondary vertebral fractures. Bisphosphonates and PTH were most effective in preventing non-vertebral fractures. We suggest that clinicians should prescribe these drugs to prevent secondary vertebral/non-vertebral fractures.

**Am J Clin Nutr. 2017 Aug 2. pii: ajcn151464. doi: 10.3945/ajcn.116.151464. [Epub ahead of print]**

## **A systematic review and meta-analysis of the effects of isoflavone formulations against estrogen-deficient bone resorption in peri- and postmenopausal women.**

Lambert MNT, Hu LM, Jeppesen PB.

**Background:** Age-related estrogen deficiency leads to accelerated bone resorption. There is evidence that, through selective estrogen receptor modulation, isoflavones may exert beneficial effects against estrogen-deficient bone loss. Isoflavone aglycones show higher bioavailability than their glycosidic counterparts and thus may have greater potency. **Objective:** To summarize evidence, we executed a systematic review and meta-analysis examining isoflavone therapies and bone mineral density (BMD) loss in peri- and postmenopausal women. **Design:** We systematically searched EMBASE and PubMed for randomized controlled trials (RCTs) evaluating isoflavone therapies for treating BMD loss at the lumbar spine and femoral neck in estrogen-deficient women. Separate meta-analyses were carried out with the use of random-effects models for the lumbar spine and femoral neck for all studies providing isoflavones as aglycones. **Results:** Twenty-six RCTs (n = 2652) were included in the meta-analysis. At the lumbar spine, isoflavone treatment was associated with a significantly (P < 0.00001) higher weighted mean difference (WMD) of BMD change of 0.01 (95% CI: 0.01, 0.02) than the control. For the femoral neck (18 RCTs, n = 1604), isoflavone treatment showed a significantly (P < 0.01) higher WMD of BMD change of 0.01 (95% CI: 0.00, 0.02) compared with the control. When isolating studies that provide isoflavone aglycones in their treatment arm, the average effect was further significantly increased at the spine (5 RCTs, n = 682) to 0.04 (P < 0.00001; 95% CI: 0.02, 0.05) and femoral neck (4 RCTs, n = 524) to 0.03 (P < 0.05; 95% CI: 0.00, 0.06) compared with the control. This protective effect against bone loss disappeared when only studies with formulations comprising predominantly isoflavone glycosides were included. **Conclusions:** Isoflavone treatments exert a moderately beneficial effect against estrogen-deficient bone loss in women. The effect appears dependent on whether isoflavone treatments are in aglycone form; we conclude that beneficial effects against bone loss may be enhanced for isoflavone aglycones.

**Menopause. 2017 Jul 31. doi: 10.1097/GME.0000000000000951. [Epub ahead of print]**

## **Body composition, cardiometabolic risk factors, physical activity, and inflammatory markers in premenopausal women after a 10-year follow-up: a MONET study.**

Razmjou S, Abdunour J, Bastard JP, Fellahi S, Doucet É, Brochu M, Lavoie JM, Rabasa-Lhoret R, Prud'homme D.

**OBJECTIVE:** Menopausal transition and postmenopause are usually associated with changes in body composition and a decrease in physical activity energy expenditure (PAEE). This study investigated body composition, cardiometabolic risk factors, PAEE, and inflammatory markers in premenopausal women after a 10-year follow-up. **METHODS:** In all, 102 premenopausal women participated in the 5-year observational longitudinal Montreal Ottawa New Emerging Team (MONET) study. This present substudy included 48 participants (age: 60.0±1.7 years; body mass index: 23.2±2.2 kg/m<sup>2</sup>) 6.0±0.3 years after completion of the initial MONET study. Measures included body composition, waist circumference (WC), fasting glucose and insulin levels, insulin sensitivity (QUICKI model), plasma lipid levels, PAEE, and inflammatory markers. **RESULTS:** Compared with baseline measures of the MONET study, analyses revealed no significant increase in body weight, although there were significant increases in WC, fat mass (FM), % FM, total cholesterol, low-density lipoprotein cholesterol and high-density lipoprotein cholesterol, haptoglobin, apolipoprotein B, ferritin, adiponectin, and soluble cluster of differentiation 14 (all P<0.001) after the 10-year follow-up. However, significant decreases were observed for fat-free mass, PAEE, fasting glucose levels, interleukin-8 levels, and soluble tumor necrosis factor receptors 1 and 2 (sTNFR-1 and sTNFR-2) levels (all P<0.05). To determine the effect of postmenopausal years, data were restructured based on final menstrual period (FMP), and one-way analyses of variance were performed. Waist circumference, % FM, total cholesterol, high-density lipoprotein cholesterol, apolipoprotein B, ferritin, adiponectin, and soluble cluster of differentiation 14 were higher in early and late postmenopausal periods in

these women. sTNFR-1 and sTNFR-2 levels were higher at the FMP and early postmenopausal years as compared with the late postmenopausal periods. Finally, interleukin-8 levels were lower in years after FMP. **CONCLUSION:** The number of years elapsed since the FMP can affect body composition, cardiometabolic risk factors, and inflammatory markers in healthy premenopausal women going through menopausal transition and postmenopausal periods.

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### **Cardiovascular fat in women at midlife: effects of race, overall adiposity, and central adiposity. The SWAN Cardiovascular Fat Study.**

Hanley C, Matthews KA, Brooks MM, Janssen I, Budoff MJ, Sekikawa A, Mulukutla S, El Khoudary SR.

**OBJECTIVES:** Cardiovascular fat (CF) is associated with greater coronary heart disease (CHD) risk. Postmenopausal women have greater CF volumes than premenopausal women, and the association between specific CF depot volumes and CHD risk is more pronounced after menopause. Race, central adiposity, and visceral adiposity are important factors that could impact CF volumes. Whether racial differences in CF volumes and in their associations with central (visceral fat [VAT]) and general adiposity (body mass index [BMI]) exist in midlife women have not been addressed before. **METHODS:** In all, 524 participants from the Study of Women's Health Across the Nation (mean age: 50.9±2.9 years; 62% White and 38% Black) who had data on CF volumes (epicardial fat [EAT], paracardial fat [PAT], total heart fat, and aortic perivascular fat), VAT, and BMI were studied. **RESULTS:** In models adjusted for age, study site, menopausal status, comorbid conditions, alcohol consumption, and physical activity, Black women had 19.8% less EAT, 24.5% less PAT, 20.4% less total heart fat, and 13.2% less perivascular fat than White women (all  $P < 0.001$ ). These racial differences remained significant after additional adjustment for BMI or VAT. Race significantly modified associations between adiposity measures and CF volumes. Every 1-SD higher BMI was associated with 66.7% greater PAT volume in White compared with 42.4% greater PAT volume in Black women ( $P = 0.004$ ), whereas every 1-SD higher VAT was associated with 32.3% greater EAT volume in Black compared with 25.3% greater EAT volume in White women ( $P = 0.039$ ). **CONCLUSIONS:** Racial differences were found in CF volumes and in their associations with adiposity measures among midlife women. Future research should determine how race-specific changes in CF volumes impact CHD risk in women.

**Pharmacol Res.** 2017 Jul 29;124:64-73. doi: [10.1016/j.phrs.2017.07.024](https://doi.org/10.1016/j.phrs.2017.07.024). [Epub ahead of print]

### **Effects of tibolone on fibrinogen and antithrombin III: A systematic review and meta-analysis of controlled trials.**

Bala M Sahebkar A, Ursoniu S, Serban MC, et al; Lipid Blood Pressure Meta-Analysis Collaboration Group.

Tibolone is a synthetic steroid with estrogenic, androgenic and progestogenic activity, but the evidence regarding its effects on fibrinogen and antithrombin III (ATIII) has not been conclusive. We assessed the impact of tibolone on fibrinogen and ATIII through a systematic review and meta-analysis of available randomized controlled trials (RCTs). The search included PUBMED, Web of Science, Scopus, and Google Scholar (up to January 31st, 2016) to identify controlled clinical studies investigating the effects of oral tibolone treatment on fibrinogen and ATIII. Overall, the impact of tibolone on plasma fibrinogen concentrations was reported in 10 trials comprising 11 treatment arms. Meta-analysis did not suggest a significant reduction of fibrinogen levels following treatment with tibolone (WMD: -5.38%, 95% CI: -11.92, +1.16,  $p = 0.107$ ). This result was robust in the sensitivity analysis and not influenced after omitting each of the included studies from meta-analysis. When the studies were categorized according to the duration of treatment, there was no effect in the subsets of trials lasting either <12months (WMD: -7.64%, 95% CI: -16.58, +1.29,  $p = 0.094$ ) or ≥12months (WMD: -0.62%, 95% CI: -8.40, +7.17,  $p = 0.876$ ). With regard to ATIII, there was no change following treatment with tibolone (WMD: +0.74%, 95% CI: -1.44, +2.93,  $p = 0.505$ ) and this effect was robust in sensitivity analysis. There was no differential effect of tibolone on plasma ATIII concentrations in trials with either <12months (WMD: +2.26%, 95% CI: -3.14, +7.66,  $p = 0.411$ ) or ≥12months (WMD: +0.06%, 95% CI: -1.16, +1.28,  $p = 0.926$ ) duration. Consistent with the results of subgroup analysis, meta-regression did not suggest any significant association between the changes in plasma concentrations of fibrinogen (slope: +0.40; 95% CI: -0.39, +1.19;  $p = 0.317$ ) and ATIII (slope: -0.17; 95% CI: -0.54, +0.20;  $p = 0.374$ ) with duration of treatment. In conclusion, meta-analysis did not suggest a significant reduction of fibrinogen and ATIII levels following treatment with tibolone.