

# Acupuncture Relieves Menopause-Related Sleep Problems

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Acupuncture can help relieve sleep disturbances in perimenopausal and postmenopausal women, according to a new systematic review and meta-analysis.

"[T]he present findings show a substantial association of acupuncture with improved sleep disturbances in perimenopausal and postmenopausal women," the researchers write.

Hsiao-Yean Chiu, RN, PhD, from the School of Nursing, College of Nursing,

Taipei Medical University, and the Sleep Science Center, Taipei Medical University Hospital, Taiwan, and colleagues present their findings in an article [published online](#) February 4 in *Obstetrics & Gynecology*.

The researchers included randomized controlled trials published in English and Chinese. The included trials compared acupuncture with control groups that received inactive (eg, sham acupuncture) or active (e.g., Chinese herbs and hypnotics and hormone therapy) interventions for relief of menopause-related sleep disturbances. They defined acupuncture as manual acupuncture, acupressure, electroacupuncture, laser acupuncture, or auricular acupuncture.

The investigators analyzed 34 trials that included 2433 randomly assigned patients with a mean age of 51.1 years (range of means, 44.1 - 63.0 years). Most of the studies were of women in China, and four of the trials concentrated on women with breast cancer. The trials used the women's reports of sleep improvement to determine the efficacy of treatments.

The most frequently used acupoints were Spleen 6, Heart 7, and Governing Vessel. The Sanyinjiao acupoint is associated with female fertility and reproductive homeostasis, the authors note.

The researchers graded most of the trials as "high or unclear risk of bias in blinding of participants and personnel, selective reporting, blinding of outcome assessment, and concealed allocation."

Acupuncture was associated with relief of sleep disturbances, with a summary odds ratio (OR) of 0.21 (95% confidence interval [CI], 0.14 - 0.31;  $P < .001$ ), compared with control treatments.

In addition, participants in the acupuncture groups experienced significant elevations of serum estradiol levels (pooled difference in means, 7.56 pg/mL; 95% CI, 4.03 - 11.08;  $P < .001$ ). Acupuncture was also associated with significantly decreased levels of follicle-stimulating hormone (pooled difference in means, -6.75 milli-international units/mL; 95% CI, -12.16 to -1.34;  $P = .02$ ) and luteinizing hormone (pooled difference in means, -2.71; 95% CI, -4.22 to -1.20;  $P < .001$ ).

The odds of sleep disturbances were significantly lower in the studies with a large effect size of acupuncture-induced serum estradiol changes (OR, 0.07;  $P = .02$ ) than in studies with small-to-moderate effect sizes (OR, 0.36;  $P = .02$ ). The researchers suggest that increased serum estradiol levels might be a possible mechanism underlying the ability of acupuncture to relieve menopause-related sleep disturbances.

"A study on postmenopausal women indicated that estradiol production exerts thermoregulation effects by inducing peripheral skin vasodilatation (a major heat loss effector), thereby reducing the core body temperature and subsequently causing the onset of sleep," the authors explain.

Serum estradiol level elevations were also significantly larger in studies that selected the Sanyinjiao acupoint, the authors note (OR, 10.51 vs 1.38;  $P < .001$ ).

"[W]e recommend that acupuncture should be adopted as an alternative or complementary therapy for improving sleep in addition to current conventional therapies (eg, [hormone therapy]) in women experiencing menopause-related sleep disturbances," the authors conclude.

"Individuals who are interested in adopting acupuncture therapy as an alternative therapy to conventional treatments for improving menopause-related sleep disturbances should talk to their acupuncturists about the Sanyinjiao acupoint as the preferred acupoint to stimulate the secretion of serum estradiol levels."

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