



# Q/ Does exercise relieve vasomotor menopausal symptoms?

## EVIDENCE-BASED ANSWER

**A** | NO. Exercise doesn't decrease the frequency or severity of vasomotor menopausal symptoms (VMS) in perimenopausal and postmenopausal

women (strength of recommendation: **A**, systematic review of randomized controlled trials [RCTs] and consistent RCT).

### Evidence summary

A 2014 Cochrane meta-analysis of 5 RCTs with a total of 733 patients examined the effectiveness of any type of exercise in decreasing vasomotor symptoms in perimenopausal and postmenopausal women.<sup>1</sup> The studies compared exercise—defined as structured exercise or physical activity through active living—with no active treatment, yoga, or hormone therapy (HT) over a 3- to 24-month follow-up period.

Three trials of 454 women that compared exercise with no active treatment found no difference between groups in frequency or intensity of vasomotor symptoms (standard mean difference [SMD]= -0.10; 95% confidence interval [CI], -0.33 to 0.13).

Two trials with 279 women that compared exercise with yoga didn't find a difference in reported frequency or intensity of vasomotor symptoms between the groups (SMD= -0.03; 95% CI, -0.45 to 0.38).

One small trial (14 women) of exercise and HT found that HT patients reported decreased frequency of flushes over 24 hours compared with the exercise group (mean difference [MD]=5.8; 95% CI, 3.17-8.43).

Overall, the evidence was of low quality because of heterogeneity in study design.<sup>1</sup>

### Two exercise interventions fail to reduce symptoms

A 2014 RCT, published after the Cochrane

search date, investigated exercise as a treatment for VMS in 261 perimenopausal and postmenopausal women ages 48 to 57 years.<sup>2</sup> Patients had a history of at least 5 hot flashes or night sweats per day and hadn't taken HT in the previous 3 months.

The women were randomized to one of 2 exercise interventions or a control group. The exercise interventions both entailed 2 one-on-one consultations with a physical activity facilitator and use of a pedometer. Patients were encouraged to perform 30 minutes of moderate-intensity exercise 3 days a week during Weeks 1 through 12, then increase the frequency to 3 to 5 days a week during Weeks 13 through 24. In one intervention arm, the women also received an informational DVD and 5 educational leaflets.

In the other arm, they were invited to attend 3 exercise support groups in their local community. The control group was offered an opportunity for exercise consultation and given a pedometer at the end of the study.

At the end of the 6-month intervention, neither exercise intervention significantly decreased self-reported hot flashes/night sweats per week compared with the control group (DVD exercise arm vs control: MD= -8.9; 95% CI, -20 to 2.2; social support exercise arm vs control: MD= -5.2; 95% CI, -16.7 to 6.3). The study also found no difference in hot flashes/night sweats per week at

**Corey Lyon, DO; Rebecca Mullen, MD; Brandy Deffenbacher, MD; Alex Reed, PhD**  
University of Colorado  
Family Medicine Residency,  
Denver

**Joan Nashelsky, MLS**  
Family Physicians Inquiries  
Network, Iowa City

#### DEPUTY EDITOR

**Rick Guthmann, MD, MPH**

Advocate Illinois Masonic  
Family Medicine Residency,  
Chicago

12-month follow-up between the DVD exercise arm and controls (MD= -3.2; 95% CI, -12.7 to 6.4) and the social-support group and controls (MD= -3.5; 95% CI, -13.2 to 6.1).

### Drug therapy relieves symptoms, but other methods—not so much

An analysis of pooled individual data from 3 RCTs compared exercise with 5 other interventions for VMS in 899 perimenopausal and postmenopausal women.<sup>3</sup> Patients had at least 14 bothersome symptoms per week.

The 6 interventions ranged from non-pharmacologic therapies, such as aerobic exercise and yoga, to pharmacologic treatments, including escitalopram 10 to 20 mg/d, venlafaxine 75 mg/d, oral estradiol (E2) 0.5 mg/d, and omega-3 supplementation 1.8 g/d. The primary outcome was a change in VMS frequency and bother as assessed by a symptom diary over the 4- to 12-week follow-up.

The analysis found a significant 6-week reduction in daily VMS frequency relative to placebo for escitalopram (MD= -1.4; 95% CI, -2.7 to -0.2), low-dose E2 (MD= -1.9; 95% CI, -2.9 to -0.9), and venlafaxine (MD= -1.3; 95% CI, -2.3 to -0.3). However, no difference in VMS

frequency or bother was found with exercise (MD= -0.4; 95% CI, -1.1 to 0.3), yoga (MD= -0.6; 95% CI, -1.3 to 0.1), or omega-3 supplementation (MD= 0.2; 95% CI, -0.4 to 0.8).

### Recommendations

The American College of Obstetricians and Gynecologists (ACOG) doesn't offer specific recommendations regarding exercise as a treatment for symptoms of menopause. The 2014 ACOG guidelines for managing symptoms report that data don't support phytoestrogens, supplements, or lifestyle modifications (Level B, based on limited or inconsistent evidence). ACOG recommends basic palliative measures such as drinking cool drinks and decreasing layers of clothing (Level B).<sup>4</sup>

The American Association of Clinical Endocrinologists' recommendations don't mention exercise as a menopause therapy.<sup>5</sup>

The North American Menopause Society's 2015 statement regarding the nonhormonal treatment of menopause symptoms doesn't recommend exercise as an effective therapy because of insufficient or inconclusive data.<sup>6</sup>

JFP

➤ **Exercise doesn't decrease the frequency or severity of vasomotor menopausal symptoms in perimenopausal and postmenopausal women.**

#### References

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