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File: ■ Lavender (*Lavandula* spp., Lamiaceae)

- Menopause
- Hot Flashes
- Aromatherapy

HC 081621-552

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RE: Lavender Aromatherapy Significantly Reduces the Number of Hot Flashes in Menopausal Women

Kazemzadeh R, Nikjou R, Rostamnegan M, Norouzi H. Effect of lavender aromatherapy on menopause hot flushing: A crossover randomized clinical trial. *J Chin Med Assoc*. September 2016;79(9):489-492.

Menopause is often accompanied by a number of symptoms that affect a woman's quality of life. One of the most common symptoms is hot flashes, which affect 50-80% of menopausal women. Decreasing estrogen concentrations increase the activation of serotonin receptors of the hypothalamus, which alters temperature regulation. A sharp increase in luteinizing hormone accompanies the hot flash, but little is known about its role. Hormone replacement therapy (HRT) is often used to treat the symptoms associated with menopause, but adverse effects limit women's willingness to use HRT. Diet, exercise, and some other activities, including aromatherapy and relaxation techniques, have been found to reduce the severity of hot flashes by stimulating serotonin and endorphin and lowering the number of hot flashes. The goal of this crossover, double-blind, placebo-controlled study was to measure the effect of lavender (*Lavandula* spp., Lamiaceae) aromatherapy on hot flash frequency in women going through menopause.

Women were recruited to the study through Ardabil University of Medical Sciences in Ardabil, Iran, between 2013 and 2014. Women were included in the study if they were between 45 and 55 years old, had not menstruated in 12 months, had normal blood pressure, were not on HRT, had no allergies or asthma, and were married and literate. Demographic data were collected and an initial 1-week record of hot flashes was collected from each woman. Patients (n = 100) were randomly divided into 2 groups. During the first phase of the study, 1 group received the lavender treatment (n = 50) and the other group received the placebo (n = 50). The lavender or placebo was administered for 20 minutes, 2 times per week, for 12 weeks. Hot flashes were recorded for 1 week. The first phase was followed by a 4-week washout period. The groups then received the other treatment for 12 weeks. Hot flashes were again recorded for 1 week. The lavender and placebo treatments were not described beyond stating that bottles

which contained lavender essence or diluted milk were used, and manufacturer(s) was not provided. Data were analyzed with independent t-tests and chi-squared analysis.

There were no significant differences among the groups at baseline in terms of demographics or hot flash frequency. Hot flash frequency was significantly lower with the lavender treatment (10.58 ± 7.34) than with the placebo (19.70 ± 13.40 ; $P < 0.001$).

Use of lavender aromatherapy significantly reduced the number of hot flashes compared to placebo in menopausal women. This reduction could be related to increases in serotonin release. Other studies have shown that aromatherapy with lavender and other plant extracts can decrease the symptoms of menopause. Aromatherapy has been shown to have effects on postsynaptic stimulation that are similar to sedation. The interpretation of the results of the current study may be limited by several factors. One weakness of this study is that the authors did not describe either the lavender or placebo used in the study. Additionally, lavender is difficult to blind due to its strong, distinctive aroma. The periods of time in which hot flash frequency was recorded also were not adequately described.

—*Cheryl McCutchan, PhD*

Referenced article can be accessed at [http://www.jcma-online.com/article/S1726-4901\(16\)30082-X/abstract](http://www.jcma-online.com/article/S1726-4901(16)30082-X/abstract).

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