



Cinnamon and early postmenopause symptoms: what a randomized clinical trial shows

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1. ABSTRACT

A randomized clinical trial evaluated whether a daily cinnamon capsule could modify the severity of symptoms in women in the early years after menopause. After two months, the treated group reported lower overall average scores compared to the placebo group, particularly in the psychological domain. The authors' summary describes a randomized, parallel-group, triple-blind study. In practice, participants were randomly assigned to the product or placebo, and participants, researchers, and analysts were unaware of the assignment during the study. The study included 60 women aged 45 to 60, one to three years after their last menstrual period. The intervention group took a capsule containing 1 gram of cinnamon per day for two months; the comparison group took a placebo. The primary outcome was the score on the Menopause Rating Scale, a scale that collects and quantifies various perceived menopausal symptoms. Final data involved 59 participants. After adjustment for the baseline score, the overall mean value was 13.95 in the cinnamon group and 16.64 in the placebo group. The difference was statistically significant, with $P = 0.01$ and a standardized effect size of 0.65, 95% confidence interval from 0.12 to 1.17. The psychological domain also showed a lower score in the treated group. The study reports an association consistent with a short-term benefit, but does not establish the biological mechanism or long-term efficacy.

VIDEO ARTICLE



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2. WHAT THIS RESEARCH ANALYZED

The 2024 study by Refaei and colleagues examined a concrete outcome for individuals: the intensity of perceived symptoms during early postmenopause. The participants were between 45 and 60 years old and were one to three years past their last menstrual period. The research did not measure hormones, inflammation, gut microbiota composition, or individual cinnamon molecules. The researchers used the Menopause Rating Scale, a questionnaire that assigns a score to the severity of psychological, physical, and urogenital symptoms. On this scale, a lower score indicates that reported symptoms are less severe. The experimental group received 1 gram of cinnamon daily in capsule form, while the control group received a placebo. The publication consulted does not provide a detailed chemical characterization of the product, such as the botanical species, cinnamaldehyde content, or other markers.

3. WHAT RESULTS EMERGE FROM THE STUDY

After two months, the women assigned to the cinnamon group reported less intense overall symptoms compared to the placebo group. The mean score was 13.95 ± 4.16 with cinnamon and 16.64 ± 4.16 with placebo. The difference reached statistical significance after adjusting for baseline values: $P = 0.01$. In practical terms, the estimated effect size was 0.65. This standardized value indicates a moderate difference between the groups in the context of this small sample; however, its 95% confidence interval, ranging from 0.12 to 1.17, remains wide. The psychological domain showed a difference in favor of cinnamon, with $P = 0.006$ and an effect size of 0.74, with a 95% confidence interval from 0.21 to 1.27. There is insufficient data available in the verified text to attribute these results to cinnamaldehyde, eugenol, or other specific components.

4. WHY THIS STUDY IS RELEVANT

The main value of this work is methodological: it studies people, uses a placebo, and limits the influence of expectations through a triple-blind design. This makes the comparison more informative than an uncontrolled observation. Furthermore, it evaluates a complete product rather than an isolated molecule;

the result therefore concerns that specific capsule, that dosage, and that duration. The data is relevant because it shows that the profile of a plant-based preparation can also be studied at a clinical level. However, it does not clarify which component of cinnamon might be involved, nor does it demonstrate that all spices, extracts, or cinnamon-based supplements produce the same effect. This step requires interpretive caution.

5. STUDY LIMITATIONS AND WHAT IT DOES NOT DEMONSTRATE

The trial was small, analyzed 59 people, and lasted for just two months. Therefore, it can detect an initial difference, but it cannot define the duration of the potential effect, long-term safety, or results in larger and more diverse groups. Furthermore, the outcomes were based on questionnaires completed by the participants, which are useful for measuring the experience of symptoms but are not equivalent to an objective biological indicator. The study by Refaei and colleagues does not demonstrate that cinnamon cures menopause, permanently alters hormones, or replaces medical treatments. It also does not demonstrate a causal relationship between a single molecule of the spice and the change in scores. The species, extraction method, and product standardization are essential aspects for correctly comparing future studies.

6. INDEPENDENT CONFIRMING EVIDENCE

Partial clinical confirmation comes from the trial by Koliji and colleagues [1]. In 105 postmenopausal women, divided into groups receiving cinnamon, Vitex agnus-castus, and a placebo, 400 mg of the product in capsule form was evaluated over two to three months regarding sexual function. The overall score improved in the cinnamon group compared to the placebo. This supports the premise that a cinnamon-based product can be studied for outcomes reported by postmenopausal women. The confirmation is direct in terms of population and design, but it concerns sexual function, not the overall symptom score. The systematic review by Maunder and colleagues [2], which included 158 publications on complementary therapies for menopause, places results like those of Refaei in a more cautious framework: many signals are promising, but the overall certainty for many options remains low or very low. This is indirect confirmation of the need not to

generalize from a single trial; it does not specifically confirm the efficacy of cinnamon. Furthermore, the meta-analysis by Moridpour and colleagues [3], covering 24 trials on type 2 diabetes, shows that the outcomes of cinnamon depend on the population, formulation, and measured result. This provides indirect support for the need to distinguish between products and contexts, rather than serving as proof regarding menopausal symptoms.

7. CONFLICTING EVIDENCE

Studies on other clinical outcomes show inconsistent results. In 25 postmenopausal women with type 2 diabetes, Vanschoonbeek and colleagues [4] did not observe improvements in insulin sensitivity, glucose tolerance, or lipids after six weeks of 1.5 grams per day

of *Cinnamomum cassia*. This result does not directly contradict the scores on menopausal symptoms, but it indicates that an effect cannot be automatically extended to different metabolic parameters. In another trial, Wickenberg and colleagues [5] studied 21 people with impaired glucose tolerance; 17 completed 12 weeks with 12 grams per day of *Cinnamomum cassia*. No significant changes emerged in insulin sensitivity, glycated hemoglobin, or liver enzymes. These differences between species, doses, populations, and measured outcomes reinforce the need for caution. No directly conflicting evidence sufficiently relevant to overall postmenopausal symptoms has been identified; this does not prove the absence of contrary results.

8. QUADRO COMPARATIVO E SINTESI DELLE EVIDENZE

The following publications help to assess the extent to which the observed result depends on the measured outcome, the formulation, and the population studied.

Quadro comparativo

Publication	Model and sample size	Main result	Relationship to Refaei study
Koliji et al., 2022 [1]	Triple-blind RCT; 105 postmenopausal women	Improvement in overall sexual function score with cinnamon compared to placebo.	Direct confirmation but on a different outcome.
Maunder et al., 2026 [2]	Systematic review; 158 publications	Many complementary therapies show promising signs, often with low or very low certainty.	Indirect confirmation of the need for caution.
Moridpour et al., 2024 [3]	Meta-analysis of 24 RCTs in type 2 diabetes	Favorable average metabolic results, but not uniform across outcomes.	Indirect support for context and formulation dependence.
Vanschoonbeek et al., 2006 [4]	Controlled trial; 25 postmenopausal women with type 2 diabetes	No improvement in insulin sensitivity, glucose tolerance, or lipids.	Indirect discordance on metabolic outcomes.
Wickenberg et al., 2014 [5]	Double-blind RCT; 21 people with impaired glucose tolerance	No significant effect on insulin sensitivity, glycated hemoglobin, or liver enzymes.	Indirect and context-dependent discordance.



9. SINTESI EDITORIALE E CONCLUSIONI

EDITORIAL CONCLUSION

The trial by Refaei and colleagues suggests that a daily capsule containing 1 gram of cinnamon, taken for two months, was associated with lower average symptom scores in women in the early years of postmenopause. The most evident result concerned the psychological area of the scale used. The randomized design, the use of a placebo, and the triple-blind method are strengths, as they make the comparison more reliable than uncontrolled observations. However, significant limitations remain: a small sample size, short duration, symptoms measured via questionnaire, and a lack of complete data on the chemical composition of the product. Independent research shows that responses to cinnamon can vary based on formulation, dose, botanical species, population, and the outcome examined. Therefore, this work is a clinical signal to be verified in larger and longer studies, not proof that cinnamon is an established therapy for menopause.

Aggiornato al 26/10/2026. Questo contenuto riflette una sintesi divulgativa delle evidenze scientifiche al momento della pubblicazione e non sostituisce il parere medico.

10. TRANSPARENCY AND SCIENTIFIC RESPONSIBILITY

Artificial Intelligence was used solely as a tool for editorial and documentary support. All content, interpretations, bibliographic citations and conclusions have been verified, reviewed and approved by the author, who assumes full scientific responsibility for them.

The manuscript was also subjected to independent peer review prior to publication.

To ensure the greatest transparency, the complete history of the article, including the dates of submission, revision, acceptance and publication, as well as information on the peer review process, is available on the dedicated Article History page.

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