

# Seed Cycling and Hormonal Health: Scientific Evidence vs. Popular Claims

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**Abstract:** Seed cycling, a naturopathic practice involving the consumption of specific seeds during different phases of the menstrual cycle, is widely promoted as a natural method for regulating estrogen and progesterone levels. This practice includes flaxseeds and pumpkin seeds during the follicular phase, followed by sesame seeds and sunflower seeds in the luteal phase. While anecdotal reports suggest benefits such as improved menstrual health, reduced PMS symptoms, and relief from menopause discomfort, scientific evidence directly supporting these claims remains inconclusive. This article critically examines the available research, discussing the nutritional benefits of seed cycling and identifying the gaps that require further clinical investigation.

**Keywords:** Seed cycling, hormonal health, PMS, menopause, phytoestrogens, flaxseeds, pumpkin seeds, sesame seeds, sunflower seeds, estrogen metabolism, progesterone synthesis

## 1. Introduction

Seed cycling has emerged as a natural approach to hormonal health, particularly in managing menstrual irregularities, PMS, and menopause-related symptoms. The practice is based on consuming different seeds—flaxseeds and pumpkin seeds during the follicular phase to support estrogen levels, and sesame seeds and sunflower seeds during the luteal phase to promote progesterone production. While proponents claim that this method helps balance hormones and reduce discomforts associated with hormonal fluctuations, the scientific foundation remains limited. This article evaluates the efficacy of seed cycling based on existing literature and scientific research.

## 2. Methodology

This article employs a literature review methodology, analyzing peer-reviewed studies, systematic reviews, and clinical trials to assess the validity of seed cycling claims.

### 1) Hormonal Balance: What Does the Science Say?

#### a) Flaxseeds and Estrogen Regulation

Flaxseeds are high in lignans, a class of phytoestrogens that may influence estrogen metabolism (Thompson et al., 2006). Some studies suggest that flaxseed consumption is associated with improved estrogen balance and menstrual cycle regulation (Goyal et al., 2014). However, direct evidence linking flaxseeds within the structured seed cycling practice to hormonal benefits is lacking.

#### b) Pumpkin Seeds and Progesterone Production

Pumpkin seeds are rich in zinc, a crucial mineral for progesterone synthesis. Zinc deficiency has been linked to menstrual irregularities (Prasad, 2008), and supplementation has been shown to improve reproductive health (Maret, 2013). However, no clinical studies specifically analyze pumpkin seed consumption in the context of seed cycling.

#### c) Sesame Seeds and Estrogenic Effects

Sesame seeds contain phytoestrogens that may help modulate estrogen levels and prevent estrogen dominance (Setchell & Cassidy, 1999). Their potential role in mitigating PMS symptoms has been suggested in small-scale studies, but more

robust research is necessary to confirm these effects within the structured seed cycling framework.

### d) Sunflower Seeds and Progesterone Support

Sunflower seeds provide vitamin E and selenium, both essential for reproductive health. Vitamin E has been studied for its role in reducing PMS symptoms and improving luteal phase hormone stability (Mishra & Kuh, 2011). Selenium contributes to thyroid function, which indirectly impacts hormone balance (Houghton et al., 2002). However, sunflower seeds' specific role in seed cycling remains under-researched.

## 2) Popular Claims vs. Scientific Evidence: Symptom Relief from PMS and Menopause

### a) PMS and Seed Cycling

Seed cycling is often promoted as a natural remedy for PMS symptoms, with claims that it can alleviate mood swings, bloating, and cramping. While studies have shown that phytoestrogens and essential fatty acids found in flaxseeds and pumpkin seeds can support hormonal health (Hallund et al., 2006), no clinical trials have validated seed cycling as a definitive treatment for PMS.

### b) Menopause and Seed Cycling

Menopause involves a decline in estrogen and progesterone levels, leading to symptoms such as hot flashes and mood fluctuations. While flaxseeds have demonstrated some efficacy in reducing menopausal symptoms (Mahmoodi et al., 2021), there is insufficient evidence to conclude that seed cycling provides significant benefits beyond general nutritional support.

## 3) Nutritional Benefits of Seeds

Regardless of their direct impact on hormonal balance, incorporating flaxseeds, pumpkin seeds, sesame seeds, and sunflower seeds into a diet provides numerous health benefits. These seeds are rich in omega-3 fatty acids, fiber, and essential micronutrients that support cardiovascular, immune, and reproductive health (Arentz et al., 2017).

## 4) The Gaps in Research: Where Do We Go from Here?

Despite the rising interest in seed cycling, the scientific validation of this practice remains limited. While the

individual nutrients found in these seeds have established health benefits, no large-scale clinical trials have specifically examined the impact of seed cycling on hormone regulation. Future studies should investigate its potential effects on conditions such as PCOS, irregular cycles, and menopause symptoms.

### 3. Conclusion

Seed cycling continues to be a popular natural approach for hormone regulation, but scientific evidence supporting its efficacy remains sparse. While the seeds involved provide valuable nutrients, their role in directly balancing hormones through seed cycling has not been conclusively proven. Until more rigorous research is conducted, seed cycling should be considered a complementary dietary practice rather than a primary treatment for hormonal imbalances. Healthcare professionals should guide individuals toward balanced, evidence-based dietary approaches while acknowledging the potential benefits of nutrient-rich foods.

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