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### Are Hormone Therapies More Effective in Treating the Manifestations/ Symptoms of Menopause than Lifestyle, Exercise, and Diet Changes?

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## Abstract

Menopause, also referred to by many women as "the change of life," is a normal time in a woman's life when menstruation ceases. During menopause, a woman's body produces decreased levels of the hormones called estrogen and progesterone. "Lower hormone levels may lead to symptoms like night sweats, hot flashes, and vaginal dryness along with thin bones" ("Menopause: medicines to help you", 2017, pp. 1). The two main types of treatment options are hormonal therapies and lifestyle changes. Hormonal therapies include medications, herbal oils, and natural supplements. Lifestyle changes include altering patterns of exercise and diet. After conducting a review of published literature pertaining to the topic, it was determined that the most successful option for treating menopause symptoms is hormonal treatments. It was demonstrated throughout the various articles that hormonal treatment options proved to provide the patient with an improved outcome compared to lifestyle changes.

# Introduction

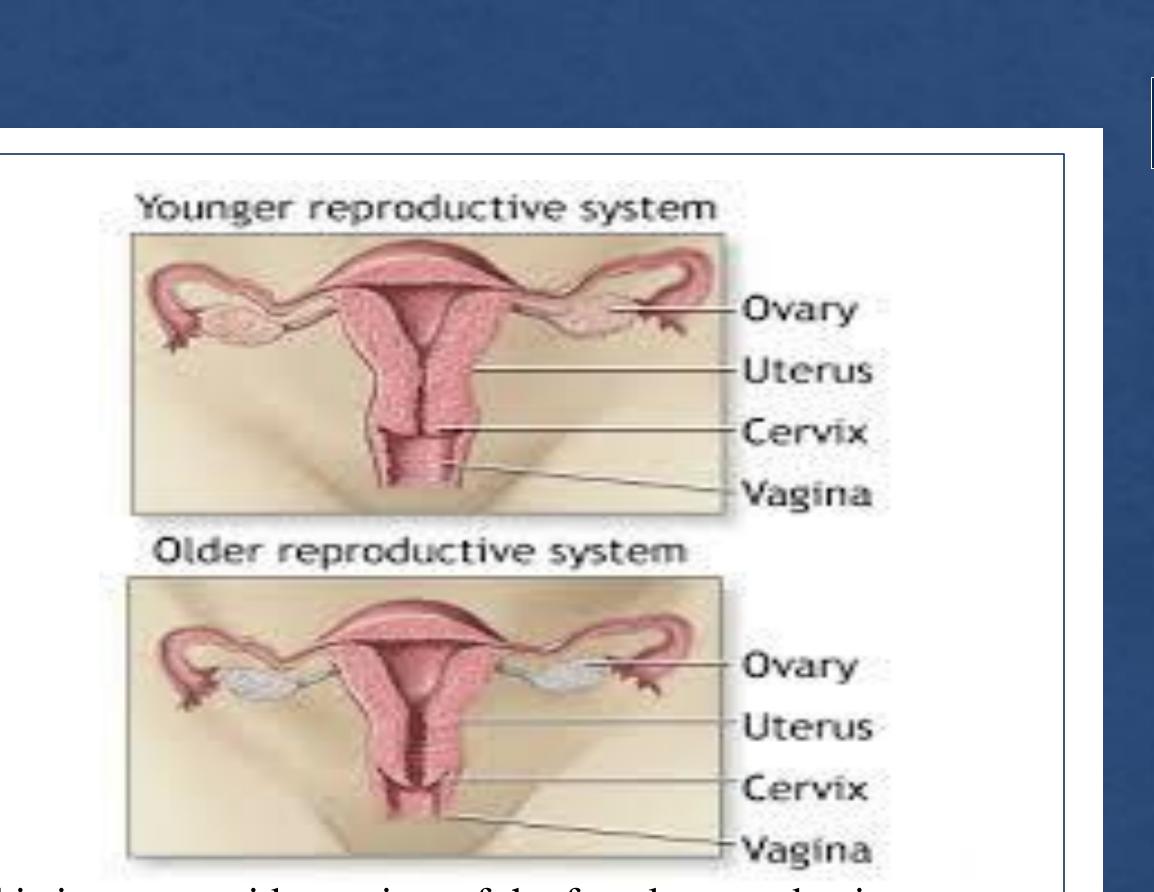
For many women, menopause has been viewed as a dreaded stage of life that leads to hot flashes and suffering. Menopause is the time in a woman's life when menstruation ceases. This process usually occurs naturally in women over the age of 45, however, some medical conditions and medications can lead to the early onset of menopause in some women. Menopause is triggered when the ovaries produce decreased levels of the hormones, estrogen and progesterone. A woman is considered to be in menopause when she has not had experienced a menstrual cycle for a period of one year. For some women, the cessation of menses provide relief, but this process also carries side effects that may be severe for some women. Symptoms of menopause are oftentimes viewed as embarrassing and unforgiving. Some of these symptoms can include hot flashes, night sweats, uncontrollable mood swings, and trouble sleeping. There are two main treatment options that are utilized by women around the world today, which are hormonal therapies and lifestyle changes. This study looks at whether hormonal therapies or lifestyle changes produce improved outcomes for patients who are experiencing increased symptoms of menopause.

# Methods

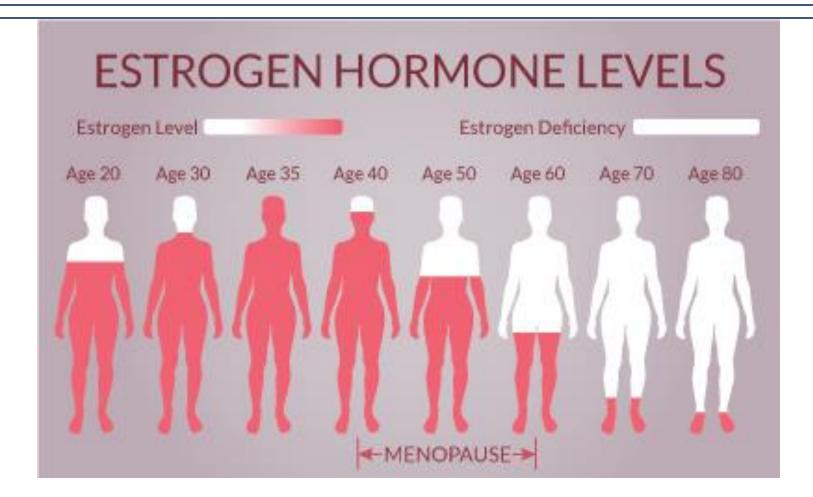
After the research question was developed, a literature review was conducted to determine which treatments for the symptoms of menopause were the most widely utilized among medical providers and women who experience severe symptoms. Through the literature, it was determined that the two main treatments were hormonal therapies and lifestyle changes. Once the research topic was narrowed, another literature review was conducted and found that there are various types of hormonal therapy that are available, and these therapies have been shown to improve the symptoms experienced by women. Several other peer-reviewed sources also explained that small changes in the lifestyle of a woman experiencing worsening symptoms of menopause such as engaging in stress-relieving activities and avoiding unwanted increases in blood pressure can also aid with the subsidence of the symptoms.

Are Hormone Therapies More Effective in Treating the Manifestations/ Symptoms of Menopause than Lifestyle, Exercise, and Diet Changes Morgan Tharpe and Madison Wessells Morgan.tharpe@live.longwood.edu and Madison.wessells@live.longwood.edu

### **Changes in Lifestyle:** • Exercise at least for 30 more minutes a day (ex: walking, weightlifting, jogging, etc.) • Reduce saturated fat intake and processed food intake • Try to participate in less stress filled activates • Get an adequate amount of sleep at night (7-8 hours) • Find hobbies to relieve stress and unwanted tension on your body (gardening, painting, sewing, etc.) • Cut back on eating 3 large meals a day and cut them up into 6 or 7 small meals (to help with blood pressure fluctuation) **Hormonal Therapy Options:** • Estrogen supplements • Herbal oil • CBD oil (can possibly serve as a muscle relaxant) • Plants from the family of phytoestrogens such as evening primrose. • Mineral and Vitamin supplements • Prescribed medications for certain side effects hot flashes fluctuating moods A hot flash is a sudden While menopause is sometimes temperature hike. It can make stereotyped as a time of irritability your face red and feel flushed this isn't the case all the time. You While hot flashes sometimes can have different moods that occur with night sweats, these can fluctuate between happiness, strike at any time of day or night. irritability, and depression. night sweats problems sleeping Night sweats refer to excessive Changes in hormone levels can perspiration at night, which car make it difficult to fall asleep at coincide with hot flashes. You night. This can also make it difficult may wake up in the middle of the to make it through the day. night drenched in sweat. insomnia Hot flashes and night sweats can disrupt your sleep by waking you up frequently in the middle of the night. Trouble sleeping can also be due to drops in estrogen that help regulate your natural sleep patterns. weight gain You may gain some weight as your body retains fat more easily frequent urination If you're hitting the bathroom more frequently, this could be due to dropping estrogen levels that increase the number of times you have to urinate. stopping of your periods painful sex Menopause basically means your period has stopped. You shouldn't have any symptoms of Even if you do have the drive to your monthly flow whatsoever, including spotting. get it on, intercourse can be painful for some women. vaginal dryness When you're no longer in a reproductive state, your body lowered sex drive doesn't produce as much natura lubrication. You may have some A drop in estrogen combined with vaginal dryness as a result. vaginal dryness and other discomforts can lower your libido. bone fractures Bone density decreases with menopause, which puts you at a higher risk of bone fractures.



This image provides a view of the female reproductive system before and after menopause. The cervix becomes stretched or the opening becomes wider which results in the cessation of menses. If the lining of the uterus is not signaled to grow, there is nothing to be shed during times of menstruation.



This graphic from the University of South Florida Health depicts the drastic decrease in the level of estrogen that a woman experiences during and after menopause which can lead to these women experiencing worsening symptoms as they age.

## **The Primrose Plant Study**

Time	Before	2 weeks	4 weeks	P-value
Group	intervention	later	later	r-value
Drug	11.15+1.78	6.78+1.29	4.78+1.60	< 0.001
Placebo	10.34+1.69	10.34+5.83	9.40+3.49	0.28
P-value	0.65	*<0.001	*<0.001	-

This graph is from "The Effect of Evening Primrose Plant on Physical Symptoms of Menopause". This table is used to compare the severity of menopause symptoms, before and after intervention in the groups of drug and placebo. With a significance value of < p=0.001, this test provided substantiated evidence that this plant/ supplement treatment had significant results in treating menopause symptoms.

## Evaluation & Analysis

## Evaluation

The effectiveness of the treatment options would be determined by the severity of the symptoms experienced by women who previously suffered from severe symptoms. The women would report the frequency, severity and any changes in the symptoms which they experienced over a defined period of time. It would also be important to determine whether the women were adhering to the treatment plan as agreed upon by them and their healthcare team. At each doctor's visit, the patient would be asked a series of questions based on their adherence to the treatment plan.

## Analysis

Secondary data analysis was used to examine the data collected during the research. This type of study refers to the analysis of existing data collected by others. Secondary analysis affords researchers the opportunity to investigate research questions using large-scale data sets that are often inclusive of under-represented groups, while saving time and resources. The background sources were utilized when researching the various solutions for menopause symptoms, and found which option were best (hormone therapies or lifestyle changes). Using sources that were appropriate, credible, reliable, and up to date with the latest studies.

# Conclusion & Implications for Future Research

### Conclusion

From the literature, it can be concluded that the most effective treatments for women who experience worsening symptoms of menopause include the use of hormonal therapies such as estrogen supplements and supplements that contain vitamin and minerals that prevent deficiencies in women who are experiencing menopause. Lifestyle changes such as avoiding stressful activities and maintaining a healthy diet can help women experience less severe symptoms of menopause and improve their quality of life.

### Implications for Future Research

For future research, it would be beneficial for studies to determine which type of hormone therapy is the most beneficial for patients when treating symptoms. Many patients also find trouble with finding the funds for these medications. Studies could evaluate the most cost friendly options that have the biggest effects on the symptoms. Work could also be done to see what kind of herbal oils or plants can be consumed to help with the more major symptoms. However, when trying these nonpharmacological treatments patients should consult their doctor first to discuss possible side effects.

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