




## RISKS AND BENEFITS OF HORMONE THERAPY IN MENOPAUSE: A NARRATIVE REVIEW OF THE LITERATURE

 <https://doi.org/10.56238/isevmjv3n5-011>

Receipt of originals: 09/09/2024

Acceptance for publication: 10/09/2024

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### ABSTRACT

**Objective:** To analyze the risks and benefits of hormone therapy in menopause.

**Bibliographic Review:** The climacteric (or perimenopause) is defined by the World Health Organization as a physiological phase of life and not a pathological process, which comprises the transition between the reproductive and non-reproductive periods of a woman's life, a period in which menstrual irregularities and vasomotor complaints appear, preceding menopause. HRT emerged with the purpose of relieving symptoms and acting preventively, thus reducing the appearance of diseases, such as cardiovascular diseases and osteoporosis. The importance of HRT in improving climacteric symptoms, such as vasomotor symptoms and urogenital atrophy, is clear. However, less than 20% of postmenopausal women use this therapy. Final considerations: It should be noted that menopause is an important physiological event in female reproductive life, usually accompanied by important organic changes, which can affect women's quality of life. Knowledge of these changes becomes fundamental since women already spend a large part of their lives in this period. In addition, at the moment, hormone replacement therapy is the main alternative to minimize the symptoms of the climacteric.

**Keywords:** Menopause. Hormone Replacement. Climacteric.

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## INTRODUCTION

The climacteric (or perimenopause) is defined by the World Health Organization as a physiological phase of life and not a pathological process, which comprises the transition between the reproductive and non-reproductive periods of a woman's life, a period in which menstrual irregularities and vasomotor complaints appear, preceding menopause. Menopause is the milestone of this phase, corresponding to the last menstrual cycle, which was followed by twelve months of amenorrhea, that is, it is the permanent stop of menstruation. The average age of its occurrence worldwide is approximately 50 years, with a range of 43 to 57 years. The preceding period, in which menstruation is already irregular, is identified as pre-menopause, and the subsequent period, in which regressive manifestations, dominate, as post-menopause. In Brazil, menopause occurs on average at 51.2 years of age. However, menopause that occurs before the minimum age is considered early or premature.

According to DATASUS estimates, in 2007, the Brazilian female population totaled more than 98 million women. Of this total, about 30 million were between 35 and 65 years old, which means that 32% of Brazilian women were in the age group in which the climacteric occurs. Menopause results from the decrease in the secretion of ovarian hormones, estrogen and progesterone, due to the definitive loss of ovarian follicular activity.

Hormone replacement therapy in menopause (MHT) has been the subject of much discussion and speculation since the 1960s, when estrogen therapy alone was prescribed for all postmenopausal women, giving rise to complications mainly at the endometrial level. In 1980, after the protective effect of progestins (compounds that interact with progesterone receptors in target tissues with an effect similar to progesterone) on the endometrium to be established, THM achieved another rise. In the 1990s, MHT was at its peak when animal and observational studies suggested that postmenopausal estrogen therapy could prevent coronary heart disease and dementia, as well as prevent bone loss. Prior to 2002, the benefits of MHT in terms of improving menopausal symptoms associated with a reduction in cardiovascular risk, osteoporosis, and colon cancer were not questioned. The risks of breast cancer and thromboembolism were outweighed by the advantages mainly based on observational studies.

## LITERATURE REVIEW

Of the women who enter menopause, about 20% are asymptomatic, but most experience unpleasant symptoms caused by decreased estrogen levels. The estrogen deficiency observed in menopause is responsible for several physiological and behavioral changes in women. The physiological changes that occur are hot flashes, night sweats, urogenital atrophy. Among the pathological changes, osteoporosis and cardiovascular diseases stand out, which interfere with the quality of life of women, while behavioral changes refer to mood swings, depression, irritability and insomnia. These symptoms usually occur a few years before menopause and persist for several years after its onset, affecting 60% to 80% of women who are in this situation.

Seventy-five percent of menopausal women report hot flashes, 80% of these have hot flashes that last for more than a year, which are characterized by sudden flushing of the face, neck and chest, accompanied by a sensation of intense body heat and ending with profuse sweating. Genital symptoms due to hypoestrogenism include vulvar pruritus, vaginal dryness, and dyspareunia, and urinary symptoms range from dysuria and frequency to infection and incontinence. Symptoms occur mainly due to vaginal atrophy, which causes the mucosa to become thinner and drier, or the vaginal epithelium can become inflamed, which will contribute to urinary problems.

The Brazilian Ministry of Health advises that the dose administered of hormone therapy should be the minimum effective to improve the undesirable symptoms caused by menopause, and should be stopped as soon as the benefits have been achieved or the risks outweigh the benefits. Natural estrogens – estradiol, estriol and estrone – are the most used in hormone replacement. Conjugated estrogens are natural hormones extracted from the urine of pregnant mares and include, in addition to estradiol, estrone and estrone sulfate, also derived from equilin, equilenin and their sulfates.

The biological effects of conjugated estrogens are mainly resulting from the combination of estrone sulfate, equiline sulfate and their metabolites. Equilin, by itself, is more potent than all the other components of conjugated estrogens. The routes of administration of natural estrogens are oral, transdermal, percutaneous and vaginal. When HRT uses estrogens associated with progestins, it is called "combined". The combination can vary between continuous and sequential or cyclical. The most popular form of combined continuous regimen is the use of 0.625 mg of conjugated estrogens with 2.5 mg of



medroxyprogesterone. The regimen that uses estrogen alone, cyclically or continuously, is recommended for hysterectomized women.

HRT emerged with the purpose of relieving symptoms and acting preventively, thus reducing the appearance of diseases, such as cardiovascular diseases and osteoporosis. The importance of HRT in improving climacteric symptoms, such as vasomotor symptoms and urogenital atrophy, is clear. However, less than 20% of postmenopausal women use this therapy. Estrogen can lead to increased cell proliferation in the uterus and breasts, which can increase the risk of developing uterine neoplasms. The use of estrogens without progesterone opposition determines a two- to three-fold higher risk of endometrial cancer compared to non-users women. When this use is longer than ten years, the risk is eight to ten times higher, representing 46 more cases of endometrial neoplasia in 100 thousand women/year.

## **FINAL CONSIDERATIONS**

It is noteworthy that menopause is an important physiological event in women's reproductive life, usually accompanied by important organic changes, which can affect women's quality of life. Knowledge of these changes becomes fundamental since women already spend a large part of their lives in this period. In addition, at the moment, hormone replacement therapy is the main alternative to minimize the symptoms of the climacteric. The ideal therapy would be a substance that has an estrogenic action on bone tissue and the urogenital system, but not on the uterus and breasts. Hormonal therapy with the objective of primary or secondary prevention of cardiovascular disease is not indicated, the same occurs in relation to osteoporosis, in which hormonal therapy is not the first choice of treatment since there are other conducts with very satisfactory results.



## REFERENCES

1. Oliveira, J., et al. (2016). Padrão hormonal feminino: menopausa e terapia de reposição. *Revista Brasileira de Análises Clínicas*, 48(3), 198-210.
2. Pardini, D. (2014). Terapia de reposição hormonal na menopausa. *Arquivos Brasileiros de Endocrinologia & Metabologia*, 58, 172-181.
3. Lente, C. L., & Velasque, L. F. L. (2015). Efeitos da terapia hormonal na menopausa: Revisão de literatura. *Biosaúde*, 17(2), 74-81.
4. Da Silva, F. J. A., et al. (2022). O uso de testosterona como terapia hormonal para mulheres na menopausa. *Concilium*, 22(7), 119-132.
5. Ferreira-Campos, L., et al. (2022). Terapia Hormonal e Hipertensão em Mulheres na Pós-Menopausa: Resultados do Estudo Longitudinal de Saúde do Adulto (ELSA-Brasil). *Arquivos Brasileiros de Cardiologia*, 118(5), 905-913.
6. De Melo, A. B. O., et al. (2024). Terapia de reposição hormonal: Benefícios e riscos durante a menopausa. *Periódicos Brasil. Pesquisa Científica*, 3(2), 1436-1446.
7. Ferreira, I. C. C., Silva, S. S., & De Almeida, R. S. (2015). Menopausa, sinais e sintomas e seus aspectos psicológicos em mulheres sem uso de reposição hormonal. *Ensaio e Ciência C Biológicas Agrárias e da Saúde*, 19(2).
8. Campos, L. F., et al. (2022). Terapia hormonal e hipertensão em mulheres na pós-menopausa: Resultados do estudo longitudinal de saúde do adulto (ELSA-Brasil). *Arquivos Brasileiros de Cardiologia*.
9. Manica, J., Bellaver, E. H., & Zancanaro, V. (2019). Efeitos das terapias na menopausa: uma revisão narrativa da literatura. *Journal of Health & Biological Sciences*, 7(1), 82-88.
10. Louzada, G. V., et al. (2023). Os efeitos da terapia de reposição hormonal em mulheres na menopausa. *Revista Eletrônica Acervo Médico*, 23(1), e11625.
11. Selbac, M. T., et al. (2018). Mudanças comportamentais e fisiológicas determinadas pelo ciclo biológico feminino – climatério à menopausa. *Aletheia*, 51(1 e 2).