

# Metformin as Adjunctive Therapy in Overweight Postmenopausal Women with Breast Cancer

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# **INTRODUCTION**

Breast cancer is the most common type of noncutaneous malignancy in women. Approximately 66% of estrogen or possibly progesterone receptors are transduced in approximately 66% of breast growth. Therefore, inhibiting estrogen movement in diseased cells is of fundamental importance in the treatment of breast malignancies. In premenopausal women, much of the estrogen is regulated by the ovaries. On the other hand, after menopause, the main source of estrogen is the adipose tissue outside the ovary where androstenedione and testosterone are completely switched to estrone and estradiol. Vitality is believed to be a risk factor for malignant growth and disease-related mortality. Obesity is usually associated with a poor prognosis, especially in postmenopausal women with breast disease. Aside from an under-appreciated real-world tool, the strength is complemented by elevated levels of estradiol, a well-known postmenopausal risk factor for malignant breast growth. Severe debility essentially stimulates estrogen motility by altering the joints of the aromatase compound, increasing estrogen production and initiating growth development and movement.

### **DESCRIPTION**

Estrogen has important potential in the pathogenesis of breast disease. Als prevent the conversion of androgens to estrogens by preventing aromatase compounds from causing low estradiol levels. The effects of aromatase catalysis were overwhelming in adipose tissue, suggesting that aromatase activity may be increased in women with strong aromatase activity. Metformin, she is the "star" drug used for type 2 diabetes, has shown very good promise as a chemotherapy specialist. It may also affect non-diabetics by improving insulin sensitivity. In any case, the essential instruments must be distinguished. Our aim was to investigate the effect of adding metformin as adjunctive therapy to letrozole, a prominent aromatase inhibitor, in active postmenopausal women with breast malignancies. In this review, metformin significantly reduced body weight and her BMI six months after treatment, in contrast to the pattern. Nevertheless, there was a non-significant decrease in mean body weight between the metformin arm and the control her arm. Basic research suggests that prolonged exposure to high insulin promotes malignant breast growth movements. Directly through establishment of the insulin receptor isoform and insulin-like development factor 1 (IGF-1) receptors, or implicitly through changes in circulating estrogen levels. In the Women's Wellbeing Drive Observational Review, hyperinsulinemia was freely associated with risk factors for postmenopausal breast cancer. Our review showed that, in contrast to the control group, metformin essentially reduced serum insulin levels, glucose levels, and HOMA-IR 6 months after treatment. Reduces hyperinsulinemia and hyperglycemia by improving the responsiveness of it interferes with gluconeogenesis and glucose binding in the liver and increases glucose utilization in muscle and adipose tissue. The effects of metformin on glucose levels may be mediated by activation of AMP-initiated protein kinase (AMPK), as a result of inhibition of complex I8 in the mitochondrial respiratory chain and reduced conversion of glycerol and lactate to glucose. Several studies have found that the digestive system is involved in the hypoglycemic effects of metformin. This may be attributed to the expansion of incretin chemical assembly to -1 (GLP-1) [1-4].

### **CONCLUSION**

Regarding the results obtained with estradiol, metformin caused a significant reduction in estradiol levels compared to the control group. This effect can be partly explained by lower insulin levels. Insulin inhibits hepatic biosynthesis of chemical-restricted globulin (SHBG). The bioavailability of estradiol

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can then be expanded. This effect may also be the result of direct obfuscation of aromatase activity by metformin. Results obtained half a year after osteocalcin treatment showed that metformin significantly reduced osteocalcin levels in both control and lean groups. There are conflicting reports on the effects of metformin on osteocalcin levels. Note the rules, lengths and proportions of metformin involved. Elevated leptin levels are associated with both breast cancer severity and morbidity. Leptin has also been used to strengthen the aromatase joint in the MCF7 cell line, subsequently promoting estrogen fusion and amplifying breast disease risk. Our review showed that metformin significantly reduced serum leptin levels compared to controls. However, there was no significant difference in mean leptin levels between the metformin and lean groups.

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# **CONFLICT OF INTEREST**

The author's declared that they have no conflict of interest.

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