### Comparison of effects of aerobic training and caloric restriction on reproductive, hormonal, cardio-metabolic parameters, and ovarian morphology of infertile overweight women with polycystic ovary syndrome

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**Abstract:**

The study aimed to compare the effects of aerobic training and caloric restriction on reproductive, hormonal, cardio-metabolic parameters, and ovarian morphology of infertile overweight women with polycystic ovary syndrome (PCOS). The participants were randomly divided into two groups: the intervention group received aerobic training and caloric restriction, while the control group continued their usual lifestyle. The results indicated significant improvements in reproductive parameters, such as increased ovulation rates and lower levels of testosterone in the intervention group compared to the control group. Additionally, the intervention group showed a significant decrease in body mass index (BMI) and waist circumference, as well as improvements in insulin resistance and fasting blood glucose levels. The ovarian morphology showed a significant increase in the number of follicles and a decrease in the number of atretic follicles in the intervention group. These findings suggest that a combined approach of aerobic training and caloric restriction is a promising strategy for improving reproductive outcomes and metabolic health in infertile overweight women with PCOS.

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**References:**


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