# Comparative Study of Body Mass Index and Waist Hip Ratio between Pre and Post Menopausal Women

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## Abstract

Aim: The aim of the study was to compare the BMI (Body Mass Index) and WHR (Waist Hip Ratio) between pre and post-menopausal women. Materials and Method: The study involved 50 females (age 45-55years) Pre-menopause and post-menopause (age 55-65 years). The anthropometric rod, weighing Scale and measuring tape were used to measure parameters i.e. body height, body weight, hip circumference, waist circumference. BMI and Waist hip ratio were also calculated from the drawn parameters. Results: The mean height and weight of the pre-menopausal and post-menopausal were  $164.19\pm 5.3$  cms and  $70.40\pm$ 6.9 Kg and 159.21+5.90 cm and 67.8+ 6.92 kg respectively. The results indicated that mean height of pre-menopausal women was significantly higher than post-menopausal women. No significant difference was seen between mean BMI of females in both groups. Further, it was observed that the mean waist in post-menopausal women is higher than the premenopausal women and was statistically significant (p < 0.05). Conclusion: The WHR is much higher in post-menopausal women which were statistically significant. As a higher waist hip ratio is major risk factor for lifestyle diseases, were observed to be increasing with menopause, there is a need to create awareness regarding healthy lifestyle for menopausal women.

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## Introduction

The term menopause is commonly used to describe any of the changes that a woman experience either just before or after she stops menstruating, marking the end of her reproductive period due to the loss of ovarian follicular activity (Harlow et al., 2012). It is divided into two phases- Pre-menopause and Post-menopause. "Pre- Menopause" is a term used to mean the years leading up to the last period, when the levels of reproductive hormones are becoming more variable and lower, and the effects of hormone withdrawal are present (Harlow et al., 2012). Pre-menopause starts