

## Hormone Replacement Therapy Usage among Midlife Women After Hysterectomy and Response to a Multicomponent Lifestyle Intervention

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**Introduction.** Hysterectomy is associated with increased abdominal adiposity, cardiovascular disease risk, and metabolic dysfunction. Hormone replacement therapy (HRT) may reduce these risks, impacting weight change and body composition in midlife women after hysterectomy participating in a multicomponent lifestyle intervention.

**Methods.** A secondary analysis was conducted in obese/overweight women (N = 30), with hysterectomies and self-reported HRT use, participating in a three-month behavioral weight-loss intervention including behavioral counseling, reduced energy intake (~1200-1500kcal/d), and increased exercise (100 min/wk). After the intervention and  $\geq 5\%$  weight loss, women completed a 12-month weight maintenance intervention (150, 225, or 300min/wk) of moderate-intensity exercise. Comparisons of anthropometrics, weight loss, weight regain, and body composition by HRT status were analyzed with Kruskal-Wallis test and SAS 9.4.

**Results.** In 30 women reporting a hysterectomy, 23 were HRT- and 7 were HRT+. There were no differences in weight loss (-3-0 mo) in HRT- ( $-8.51 \pm 3.14$  kg) compared to HRT+ ( $-7.55 \pm 1.89$  kg;  $p = 0.405$ ) or weight regain (0-12 mo) in HRT- ( $2.05 \pm 6.61$  kg) compared to HRT+ ( $3.59 \pm 4.49$  kg;  $p = 0.750$ ). There were no differences in changes in body composition across the intervention by HRT usage.

**Conclusions.** No differences were found in response to a multicomponent lifestyle intervention in midlife women after hysterectomy by HRT usage. Further exploration of HRT administration should be examined to determine impacts on weight change and body composition in midlife women.

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