



SYSTEMATIC REVIEW ON UNDERSTANDING OF WEIGHT GAIN IN MIDLIFE WOMEN

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How to cite this Article: *Dr. Shilpa Kantilal Ingle, MD PhD. (2026). SYSTEMATIC REVIEW ON UNDERSTANDING OF WEIGHT GAIN IN MIDLIFE WOMEN. World Journal of Advance Pharmaceutical Sciences, 3(7), 25-27.



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<p>Article Info</p> <p>Article Received: 15 May 2026, Article Revised: 05 June 2026, Article Accepted: 25 June 2026.</p>	<p>ABSTRACT</p> <p>Weight gain significantly occurs in women during young adulthood which increases risk of diseases like diabetes, cardiovascular disease and many cancers. This review aims to inform future individually targeted weight gain prevention programmes and summarizes possible targets: key life events, mediators that influence energy intake and physical activity levels, and moderators that could identify groups of women at greatest risk. Life events affecting weight include pregnancy and motherhood, smoking cessation, marriage and cohabiting, attending university, and possibly bereavement. Research has identified successful methods for preventing weight gain associated with pregnancy and motherhood, which could now be used in practice, but evidence is inconclusive for preventing weight gain around other life events. Weight gain is mediated by lack of knowledge and skills around food and nutrition, depression, anxiety, stress, satiety, neural responses, and possibly sleep patterns and premenstrual cravings. A paucity of research exists into altering these to limit weight gain. Moderators include socioeconomic status, genetics, personality traits, and eating styles. More research is required to identify at-risk females and engage them in weight gain prevention. There is a need to address evidence gaps highlighted and implement what is currently known to develop effective strategies to limit weight gain in young women.</p> <p>KEYWORDS: Weight gain, Young women, Obesity prevention, Pregnancy, Motherhood, Physical activity.</p>
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INTRODUCTION

Weight gain is an important concern in for most women of all ages particularly during midlife. During midlife of women various changes occur in women's life such as reproductive aging and physiological aging, aggravating. Though weight gain is not a menopause symptom but the observed increase in body fat accumulation and translocation of fat to the abdomen region is the result of menopause driven pathways. Menopause induced hormonal changes alter body composition dynamics, which in turn, induce a further reduction in the basal metabolic rate. Ageing decreases in basal metabolic rate, increases inflammation and if simultaneous physical inactivity, gut dysbiosis and sleep disturbances are present then it accelerate the speed of body weight gain the loss of lean skeletal muscle, leading to obesity.^[1]

Surprising Reasons for Weight Gain in Women are Hormonal Fluctuations, Stress and Cortisol Levels, Sleep Deprivation, Medications and Birth Control, Thyroid Issues, Fluid Retention, Changes in Physical Activity, Dietary Changes, Emotional Eating.^[2]

Systematic Review

Weight gain is an important problem amongst young women that needs to be tackled to reduce morbidity in adulthood, premature mortality, and economic burden. There is inadequate knowledge about how to identify young women at greatest risk of weight gain. Some at-risk populations are already defined, such as populations with lower SES and women reporting stress-related eating. Future prospective cohort studies are required to determine specific characteristics that predict future

weight gain. These higher risk populations could then be targeted in future programmes. Most weight gain prevention interventions have focussed on the major events, resulting in some effective interventions for pregnancy and postpartum that could be translated into practice. More research is required for interventions to prevent weight gain amongst young women at other risk times including smoking cessation, marriage and cohabiting, attending university, and bereavement. There is also a paucity of research into how mediators of weight gain can be altered to reduce long-term weight gain such as knowledge and skills around food and nutrition, depression, anxiety and stress, sleep, premenstrual cravings, and satiety. Future research may clarify the role of other potential mediators in weight gain such as the gut microbiome and brown adipose tissue. It is also generally not clear whether combined diet and PA, or diet or PA alone interventions are most effective for different life events. Many previous trials to prevent weight gain have been low quality, have been of short duration, and include women with overweight and obesity in addition to women of a healthy weight. Future interventions should be based on a theoretical framework, be of sufficient duration, and be fully powered according to their outcomes, and resulting publications should have high external validity, that is, adequate reporting of methods and results to progress research and enable translation into routine practice. Following a structure such as the Medical Research Council's Framework for design and evaluation of complex interventions to improve health will help improve the quality of future research.^[3]

Obesity is a heterogeneous condition with complex interactions among sex/gender, sociocultural, environmental, and biological factors. Obesity is more prevalent in women than in men in most developed countries, and several clinical and psychological obesity complications show sex-specific patterns. Females differ in fat distribution, with males tending to store more visceral fat, which is highly correlated to increased cardiovascular risk. Although women are more likely to be diagnosed with obesity and appear more motivated to lose weight, as confirmed by their greater representation in clinical trials, males show better outcomes in terms of body weight and intra-abdominal fat loss and improvements in the metabolic risk profile. With regard to novel anti-obesity drugs, RCTs also suggest a gender difference, with a better response of women to treatment compared to men. Globally, these observations encourage further studies exploring gender differences in obesity and individualization of obesity pharmacotherapy to optimize the potential benefits of novel anti-obesity drugs in different medical contexts.^[4]

Midlife women experience changes related to aging, menopause, and lifestyle which favour weight gain. Clinical practice should focus on early counselling and anticipatory guidance on the importance of dietary changes and physical activity to attenuate this

phenomenon. Future research should focus on the longitudinal relationship between weight trends in midlife and health consequences and mortality.^[5]

The current study indicates that weight gain prevention intervention participants struggle to return to their initial weight following weight gains. Common predictors of weight control intervention outcomes (e.g., frequent self-weighing) were found to predict transitions in intervention follow-up, although fewer were identified that predicted recovery from weight gain above baseline than predicted weight increase above baseline. Future work may try to identify additional predictors of transitions and consider additional or alternative strategies that may aid individuals in recovering from unwanted weight gain in the maintenance phase of a weight control intervention.^[6]

Menopause transition may represent a risky period in a woman's life, 'triggering' adverse metabolic and cardiovascular processes that predispose women to a greater incidence of obesity-related comorbidities. Dietary, exercise, and hormonal interventions specifically targeted at premenopausal women may help mitigate the worsening cardiovascular and metabolic risk profile associated with menopause.^[7]

Initiating lifestyle modification programs that incorporate diet and exercise (aerobic and resistance training) for women during perimenopause may be timelier and have a higher yield in terms of reducing future risk of cardiometabolic than waiting until the postmenopausal years, after substantial weight gain and fat mass accrual have already occurred.^[8]

Weight management in midlife women requires a thorough understanding of the menopausal changes, symptoms or both in order to recognize and address potential barriers to implementation of a behavioural program for weight loss. An ideal program follows a multidisciplinary approach, which involves several experts, including medical providers, behavioural psychologists, dietitians, exercise specialists and lifestyle coaches. In addition to recommending lifestyle changes, these providers should carefully screen patients for the presence of menopausal symptoms, including hot flashes, sleeping difficulties and mood problems, and appropriately treat for the conditions. This screening helps improve compliance with behavioural interventions for weight loss.^[9]

Weight gain and increased visceral fat are common problems in midlife women. These changes considerably affect the physical, emotional, and psychosocial health of women. We recommend that medical practitioners actively screen for overweight/obesity in midlife women and offer appropriate education, treatment, and support. This includes management of issues unique to midlife women, including vasomotor symptoms, mood disorders,

and sleep disturbances, that interfere with adoption of healthy lifestyle measures.^[10]

CONCLUSION

Aging-related weight gain in women may start earlier in life than we think. Weight changes are not only characteristic of midlife or menopause it may start early in adulthood. Around age 30, our muscle mass starts decreasing gradually due to natural aging process which is then worsen in midlife due to menopause. The decreasing muscle mass leads to a lower metabolism which is a risk factor for weight gain. Adding to the challenge of achieving a healthy weight before and after menopause are many of the features of modern life including an abundance of processed foods high in sugar, sedentary work for longer hours with less physical activity. To alleviate muscle mass loss that occurs with aging, a healthy diet should include enough protein and exercise should include resistance training. Being aware that weight-related physical changes start earlier than midlife may help people be mindful about the importance of establishing and maintaining a healthy lifestyle, including adequate diet and exercise, well ahead of menopause. It may help to track what and how much you eat, to understand how much you need to eat to feel satisfied and avoid overeating.

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