

BODY COMPOSITION CHANGES DURING PERIMENOPAUSE



What is Perimenopause and what is the big deal? Perimenopause is the transitional period before menopause, and is associated with notable changes in body composition, primarily influenced by hormonal fluctuation, especially the decline in testosterone, estrogen, and progesterone, which impacts fat distribution and muscle mass in women.

Key Body Composition Changes During Perimenopause

Increase in Body Fat,
Especially Abdominal Fat

Studies consistently show that perimenopausal women experience increased body fat, particularly in the abdominal region, likely due to hormonal changes combined with reduced energy expenditure. This shift to more visceral fat increases health risks, including cardiovascular and metabolic diseases. (Marlatt et al. 2021), (Greendale et al., 2019)

Loss of Lean Muscle Mass

Alongside increased fat mass, lean body mass (muscle) tends to decrease during perimenopause, contributing to a slower metabolism and further fat accumulation if caloric intake is not adjusted. This reduction in muscle mass also affects bone density, metabolic rate and overall strength, making regular exercise crucial for mitigating muscle loss. (Wright et al. 2024), (Pellegrino & Vandenberg 2022).

Sleep Disturbances

Night sweats and other symptoms can interfere with sleep quality, leading to fatigue and increased stress. These interferences directly or indirectly affect levels physical activity and recovery. Good sleep hygiene and management strategies are important for maintenance of healthy weight. (Kravitz et al. 2018).

Metabolic Rate and
Physical Activity

The transition period is often marked by a drop in resting metabolic rate and physical activity levels, both of which contribute to weight gain if not countered with lifestyle adjustments. A comprehensive approach, including diet, physical activity with strength training, and possibly meditative movement practices like yoga or tai chi, may improve body composition and enhance overall well-being during this phase. (James et al., 2023), (Marlatt et al., 2021) & (Riaz et al. 2022)

Conclusion

Perimenopause is a critical phase that brings about shifts in body composition, with an increase in abdominal fat and a decrease in lean muscle. Identifying these systemic changes and managing them can help women maintain their health and quality of life through this transition and beyond. Evidence shows that through lifestyle interventions such as maintaining physical activity, strength training and appropriate nutrition can help mitigate body composition changes.

EVIDENCE BASED INTERVENTIONS TO MITIGATE BODY COMPOSITION CHANGES DURING PERIMENOPAUSE



EVIDENCE-BASED INTERVENTIONS CAN EFFECTIVELY HELP MITIGATE BODY COMPOSITION CHANGES DURING PERIMENOPAUSE. KEY STRATEGIES INVOLVE PHYSICAL ACTIVITY, DIET MODIFICATIONS, AND MIND-BODY PRACTICES, EACH ADDRESSING FAT GAIN AND MUSCLE LOSS COMMON DURING THIS TRANSITION (HAO ET AL., 2022).

Effective Interventions for Body Composition in Perimenopause

Exercise Programs

Exercise interventions, especially concurrent programs combining resistance and aerobic training, have shown to significantly reduce fat mass and BMI. bone-loading exercise regimens may improve muscle mass and bone mas health in this population as well as reduce fat. Walking and moderate physical activities also positively impact BMI, body weight, and body fat percentage, with walking particularly effective in lowering abdominal fat (Hulteen at al., 2023) & (Sanudo et al.. 2017)

Dietary Interventions

Nutrition-focused approaches, including the Mediterranean diet (MD) and hypocaloric diets, are beneficial for reducing weight and visceral adipose tissue. Higher MD adherence has been linked to better body composition outcomes in perimenopausal women, while hypocaloric diets may reduce visceral fat but require careful implementation to prevent bone density loss (Erdelyi et al., 2023) & (Cabre et al., 2024)

Mind-Body Therapies and Meditative Movement

Mind-body practices like yoga, tai chi, and qigong help address stress, mood, and sleep disturbances that indirectly impact body composition. These activities improve stress resilience, promote mindfulness, and support better body awareness, which may reduce abdominal fat accumulation and support lean body mass maintenance (Goldstein et al., 2017) & (Shorey et al., 2019)

Hormone Therapy

Short-term hormone replacement therapy (HRT) can help counteract muscle loss and reduce visceral fat accumulation associated with estrogen decline. However, its use is individualized and should be assessed for risks and benefits (Davis et al., 2019) & (Davis et al., 2012) (Davis et al., 2019)

Conclusion

Combining exercise, dietary management, mind-body therapies, and, in some cases, hormone therapy, appears effective for mitigating body composition changes during perimenopause and beyond.

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