

SARCOPENIA OBESITY

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WHAT IS SARCOPENIC OBESITY?

Sarcopenic obesity, a combined condition of low muscle mass and high body fat. Compounding the effects of both sarcopenia and obesity, sarcopenic obesity has negative consequences on older adults, which can lead to metabolic problems, physical disability, poor quality of life, institutionalization, morbidity and mortality.¹ Sarcopenia and obesity may even potentiate each other and maximize the negative effects of the conditions.²

A commonly used definition of sarcopenic obesity³ includes both sarcopenia and obesity. An updated consensus of the definition of sarcopenia was proposed by the European Working Group on Sarcopenia in Older People (EWGSOP) in 2018,⁴ and includes low muscle strength as the primary parameter, low muscle quantity or quality as the diagnostic criteria, and low physical performance as the severity diagnostic standard. Obesity is defined as the abundant accumulation of fat mass that negatively affects health⁵, and is always diagnosed by BMI.

WHAT ARE THE CAUSES OF SARCOPENIC OBESITY?

Muscle mass and strength begin to decline gradually around age 30, with an accelerated loss after aged 60.¹ This age-related muscle change is related to insulin resistance, decreased growth hormone and testosterone, inflammation, oxidation, fat infiltration, etc.⁶ Besides the nature of aging, behavioral factors such as sedentary lifestyle and insufficient nutrients can also contribute to the change of body composition.⁷ Research has indicated that adequate protein intake is essential for the muscle building, while the protein intake tends to be decreased among the older population⁸ which accelerates the process of muscle losing.

HOW IS SARCOPENIC OBESITY TREATED AND PREVENTED?

Exercise and nutritional interventions are the most common treatment and prevention for older adults with sarcopenic obesity. A systematic review revealed that resistance exercise is essential to managing body composition and physical performance parameters among people

with sarcopenic obesity, while nutritional interventions only impact body fat mass.⁹ Another meta-analysis indicated that interventions with calorie control and appropriate exercise can reduce body fat. Combining exercise with nutritional interventions shows effectiveness for improving grip strength and gait speed, while exercise is still the most effective method for managing sarcopenic obesity.¹⁰

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