When It Comes to Weight Loss in Overweight and Obese Adults with Knee Osteoarthritis, More is Better

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Researchers previously showed that overweight and obese individuals with knee osteoarthritis can reduce pain by 50% and significantly improve function and mobility with a 10% or more weight loss over an 18-month period. The investigators’ latest findings, which are published in Arthritis Care & Research, reveal that a 20% or more weight loss has the added benefit of continued improvement in physical health-related quality of life along with an additional 25% reduction in pain and improvement in function.

The results come from a secondary analysis of diet-only and diet plus exercise groups in the Intensive Diet and Exercise for Arthritis (IDEA) randomized controlled trial. A total of 240 overweight and obese older community-dwelling adults with pain and knee osteoarthritis were divided into four groups according to weight loss achieved over an 18-month period: less than 5% (<5% group), between 5 and 9.9% (≥5% group), between 10 and 19.9% (≥ 10% group), and 20% and greater (≥20% group).

The researchers found that the greater the weight loss, the better participants fared in terms of pain, function, 6-minute walk distance, physical and mental health-related quality of life, knee joint compression force, and IL-6 (a marker of inflammation). Also, when comparing the two highest groups, the ≥20% group had 25% less pain and better function than the ≥ 10% group, and significantly better health-related quality of life.

Obesity is a health issue worldwide and a major and modifiable risk factor for many of the more than 250 million adults with knee osteoarthritis. “Currently, there is no treatment that slows the progression or prevents this debilitating disease; hence, research has focused on improving clinical outcomes important to the patient,” said lead author Stephen Messier, PhD, of Wake Forest University, in Winston-Salem, NC. “A 10% weight loss is the established target recommended by the National Institutes of Health as an initial weight loss for overweight and obese adults. The importance of our study is that a weight loss of 20% or greater—double the previous standard—results in better clinical outcomes, and is achievable without surgical or pharmacologic intervention.”

Additional Information


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About the Journal

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