



Fact 1 Osteoarthritis (OA) is strongly associated with weight and obesity.

- OA is a chronic progressive joint disease caused by increased force across the joint and other pro-inflammatory factors such as inflammation throughout the body which is linked to obesity.^{5,9,11}
- A person with obesity is 60 percent more likely to develop arthritis than someone of normal body weight.^{10,11}
- Joint pain symptoms and severity increase with body mass index (BMI) values. For every 11 pounds of weight gain, there is a 36 percent increased risk for developing OA.¹⁰
- Women with obesity have nearly four times the risk of knee OA, and men with obesity have five times the risk of knee OA compared to leaner individuals.⁸
- The number of osteoarthritis cases involving the knee in the U.S. could be cut in half if obesity was removed as a risk factor.⁵

Fact 2 Osteoarthritis is not just a wear and tear disease; obesity can be a cause of chronic inflammation throughout the body that can contribute to the development of osteoarthritis.

- Osteoarthritis affects non-weight bearing joints, including joints in the hands, upper extremities, mid-back and neck.^{8,10}
- Obesity is a cause of low-level inflammation in the body.^{8,9,10,11}
 - As individuals become affected by obesity and their fat cells enlarge, fat tissue undergoes biological changes affecting metabolism through inflammation.^{9,11}
 - Individuals affected by obesity have higher concentrations of biochemical inflammatory processes and reactions, therefore may be at greater risk for functional limitations and OA disease progressions.^{7,11}
- Fat tissue inflammation is important in the development of obesity-related complications.^{9,11}

Fact 3 The risk of disability in people with OA increases with the degree of obesity.

- Those affected by obesity are 1.72 times more likely to be disabled from OA than normal weight counterparts.¹
- Those with severe obesity (more than 100 pounds overweight), increase the risk of disability from OA to 2.75 times higher than normal weight persons.¹
- Force across the knee joint is 3 times one's body weight while walking, six times one's body weight while stair climbing and 10 times one's body weight while jumping.

Fact 4 Weight-loss can reduce joint pain and symptoms of osteoarthritis; obesity is the most modifiable risk factor for OA.

- For women with obesity, for every 11 pounds of weight lost, the risk of knee osteoarthritis drops more than 50 percent.³
- Weight-loss can significantly improve the symptoms of patients with osteoarthritis by restoring function and quality of life and preventing more than 100,000 total knee replacements each year.^{5,10}
- Intensive weight-loss will reduce inflammation and joint loads sufficiently to alter disease progression.^{7,10}
- Both exercise training and weight-loss decrease overall inflammation.^{7,10}
- Weight-loss helps prevent the onset of OA symptoms and disability.¹⁰
 - Obesity (BMI \geq 30.0 kg/m²) is associated with increased risk of functional impairment and is considered the most modifiable risk factor for knee OA.^{6,7}

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