**How Does Weight and Obesity Impact our Balance**

**Obesity in the geriatric population – a global health perspective**

The global obesity crisis has been a major concern for public health organizations worldwide. The prevalence of obesity in the older population has been on the rise, and now poses a major global threat in both developed and developing countries. Overall age-adjusted prevalence of obesity in the United States is estimated to be 35.0% among men and 40.4% among women ([1](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8136402/#R1)). These rates parallel those observed in the geriatric population, with 37.1% of men and 33.6% of women aged 60 years and older classified as having obesity (based on a body mass index (BMI) ≥30 kg/min2). In this same age range, the rates of being classified as overweight are 78.4% for men and 68.6% for women ([2](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8136402/#R2)). Recently, a systematic analysis for the Global Burden of Disease Study revealed a worldwide increase in the prevalence of overweight and obesity by 27.5% between 1980 and 2013.

SOURCE: <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC8136402/>

**Associations between obesity and overweight and fall risk, health status and quality of life in older people**

**Objectives:**To determine whether overweight and obese individuals have higher reported fall and fall injury risk than individuals of healthy weight, and to examine the influence of BMI on health, quality of life and lifestyle characteristics of fallers.

**Results:**Obese individuals had a 31% higher risk of having fallen, but no higher risk of a fall-related injury compared to healthy-weight individuals. Obese fallers also had a 57% higher risk of believing nothing could be done to prevent falls; a 41% higher risk of using four or more medications; a 30% higher risk of experiencing moderate or extreme pain or discomfort; were 26% less likely have walked for two or more hours in the last week; and were less likely to think they were doing enough physical activity.

**Conclusions:**Older obese individuals have an increased risk of falls and obese fallers have a higher prevalence of pain and inactivity than fallers of a healthy weight “individual”.

**Implications:**A decrease in sedentary lifestyle and regular weight-bearing exercise may reduce fall risk in older obese individuals.

SOURCE: <https://pubmed.ncbi.nlm.nih.gov/24494939/>

**Better Bones & Balance®** is based on research from Oregon State University. Study participants who performed balance and strength exercises using weighted vests reduced their rate of hip bone loss and reduced their risk of falls. All of the study participants were post-menopausal women.

The BBB classes are designed to gradually improve balance and strength to avoid falls and maintain independence. "Better bones are a bonus," says [Professor Kathy Gunter, Ph.D.](http://health.oregonstate.edu/people/gunter-kathy)

"Most fractures occur from a fall. If you avoid the fall, chances are you won’t experience a fracture. Because this program targets strength and balance, it has an immediate impact on reducing the risk for falls. The benefits to bone observed among long–term participants are icing on the cake."

SOURCE: <https://extension.oregonstate.edu/bbb>

**Does Obesity Increase the Risk and Severity of Falls in People Aged 60 Years and Older? A Systematic Review and Meta-analysis of Observational Studies**

**Results:**Thirty-one studies including a total of 1,758,694 participants were selected from 7,815 references. Pooled estimates showed that obese older adults have an increased risk of falls compared with nonobese counterparts (24 studies; relative risk: 1.16; 95% CI: 1.07-1.26; I2: 90%). Obesity was also associated with an increased risk of multiple falls (four studies; relative risk: 1.18; 95% CI: 1.08-1.29; I2: 0%). There was no evidence, however, of an association between obesity and fall-related injuries (seven studies; relative risk: 1.04; 95% CI: 0.92-1.18; I2: 65%). Fall-related fractures were reported in only one study, which demonstrated a lower risk of hip fracture with obesity (odds ratio: 0.65; 95% CI: 0.63-0.68).

**Conclusions:**Obesity increases the risk of falls and multiple falls in people aged 60 years and older; however, there is insufficient evidence of an association with fall-related injuries or fractures. Prevention and treatment of obesity may play a role in preventing falls in older age.

SOURCE: <https://pubmed.ncbi.nlm.nih.gov/31750880/>

**What Your Weight Means for Your Bones**

*by Frank B. Kelly, MD*

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It’s no secret that too much weight can have an impact on your health. Just look at the list of problems associated with obesity:

* diabetes
* high blood pressure
* heart disease
* lung disease
* sleep apnea

Too much weight can also have a serious impact on your bones, joints and muscles. Joints — knees, hips, ankles, shoulders and elbows — are formed when the ends of two or more bones come together and are held together by thick tissues. The knee joint, for example, is formed by the two lower leg bones connecting to the thigh bone.

Joints can carry a certain amount of weight and stress. Putting too much weight or stress on your joints can cause problems. If you are affected by excess weight or obesity, it’s more difficult to treat these problems, and the outcomes are not as good as in people of normal weight.

Did you know that every pound of weight gained puts an extra four pounds of pressure on each of your knee joints? So, if you gained just five pounds, it would be like adding 20 pounds to each knee. Think about carrying a 20-pound weight around all day in each hand and you can imagine how much your knees complain with each step!

And, believe it or not, most people take between 5,000 and 10,000 steps each day! No wonder your knees, and other joints in your body, can wear out faster as you get heavier!

**Joint Problems**

These extra pounds can lead to many problems, including arthritis. As the smooth surface called “cartilage” on the ends of bones becomes damaged or worn, you will start to feel pain and stiffness in the joint. Sometimes the joint will swell.

Weight also puts pressure on the connecting tissues around joints, such as tendons. Tendons connect muscles to the bones. The extra pressure placed on the joints by weight gain can cause the tendon to become inflamed, resulting in “tendonitis.” Tendonitis can cause swelling, redness and pain around the joint. Sometimes the pain can be almost disabling.

Another joint problem is “bursitis.” A “bursa” is a fluid sack near the joint that helps to keep tissues from rubbing against bones. When the bursa is irritated, it can cause pain, swelling and redness, just like tendonitis. Bursitis can develop after an injury or due to frequent repetitive motions (overuse), but it can also result from being affected by excess weight.

Treating some joint problems may be simple. Losing weight, applying ice to the sore joint, resting the joint, and taking aspirin or other over-the-counter medicines can help reduce the pain, swelling and redness.

SOURCE: <https://www.obesityaction.org/resources/what-your-weight-means-for-your-bones/>

**How to calculate your BMI:** *Click the link below*

National Heart, Lung and Blood Institute

SOURCE: <https://www.nhlbi.nih.gov/health/educational/lose_wt/BMI/bmicalc.htm>