



# The Wear and Tear of Obesity:

## the Burden of **WEIGHT** in Joint Disease

*By Jacqueline Jacques, ND*

As obesity becomes more prevalent, we continue to see a rise in arthritis. The percentage of arthritis cases linked directly to obesity has risen from 3 percent in 1971 to 18 percent in 2002. A person with obesity is around 60 percent more likely to develop arthritis than someone of normal body weight.

One of the largest studies that looked at the relationship between weight and OA was the Framingham Study. In this study, more than 1,400 individuals who had their health tracked from 1948 to 1985 were given X-rays to look for OA of the knee. Thirty-three percent of these people were found to have OA.

Of those with arthritis, men in the heaviest group had a 42 percent higher rate of OA than those of lower weights. Among women, a body mass index (BMI) greater than 25 (25 is the beginning of the weight status category, “Overweight”), had a significantly higher risk of developing OA compared to women with a normal-range BMI.

### **Rheumatoid Arthritis**

The other condition that can affect joints is Rheumatoid Arthritis (RA). RA is actually a systemic autoimmune disease that causes inflammation and can damage many systems of the body (including the heart, lungs, eyes and digestive system) but is most known for causing a painful, joint-deforming arthritis.

While the mechanism is not completely understood, being overweight or obese (having a BMI greater than or equal to 30), seems to greatly increase the development of RA. This may be because adipose cells (the cells in the body that

**Osteoarthritis (OA)**, also known as a degenerative joint disease (DJD), is the most common type of joint disease in the world. In the United States alone, more than 27 million adults have a diagnosis of OA .

Your joints are the connections in the body where your bones come together. It is because of our joints that we can move our bodies in ways that allow us to do everything from walk, to write, to turn our heads – so when joints become damaged or diseased, daily life can become painful and challenging.

The joints of the body that hold us up when we stand and carry the mass of our body are called “weight bearing joints.” The primary weight bearing joints are the ankles, knees and hips. Joints of the feet, pelvis and low back and spine (especially the low back) are also weight-bearing.

While OA can develop due to wear and tear on any joint, those that bear our weight are most susceptible because of the mechanical force placed on them. For this reason, the more you weigh, the more stress on your weight-bearing joints, the more likely you are to develop OA.

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store fat) make inflammatory chemicals that can both irritate tissues like joint tissue, but also affect immune system function. Whatever the cause, for those who are prone to the development of RA, having excess body weight may be a factor in whether they actually develop the disease or how severe it becomes.

## How Does Weight-loss Impact Joint Health and Function?

While we know that weight gain has a negative impact on joint health and function, we also know the reverse to be true – in general, weight-loss can have a very positive impact on joint health.

For example, with OA, while the Framingham study showed that even being slightly overweight significantly increased the incidence of OA in women, they also found that losing 11 pounds reduced their risk of developing knee OA by half.

A 2005 study that followed around 150 overweight and obese patients with OA found that a weight-loss of 5 percent

brought about an average 18 percent improvement in OA symptoms, including reduced pain and improved joint function. With RA, maintaining a lower weight is linked to better outcomes and recovery. A study that looked at the response of RA patients to a common treatment, infliximab (Remicade®), found that compared to those of normal weight, only about half of the overweight and obese patients went into a state of remission.

Overall, body weight is significantly connected to the health of your joints. One benefit of maintaining lower weight is clearly a reduced risk for all forms of joint disease. If you are overweight and suffer from arthritis, even small amounts of weight-loss may significantly improve the health and function of your joints.

### **About the Author:**

*Jacqueline Jacques, ND, is a Naturopathic Doctor with more than a decade of expertise in medical nutrition. She is the Chief Science Officer for Catalina Lifesciences LLC. Dr. Jacques is a member of the OAC National Board of Directors.*



# ABOUT THE OBESITY ACTION COALITION (OAC)

The Obesity Action Coalition (OAC) is a National non-profit organization dedicated to giving a voice to individuals affected by obesity and helping them along their journey toward better health. Our core focuses are to elevate the conversation of weight and its impact on health, improve access to obesity care, provide science-based education on obesity and its treatments, and fight to eliminate weight bias and discrimination.



VIBRANT COMMUNITY



NATIONAL AWARENESS CAMPAIGNS



ANNUAL CONVENTION



ADVOCACY



PUBLIC EDUCATION

## LEARN, CONNECT, ENGAGE

The OAC knows that the journey with weight can be challenging but we also know that great things happen when we learn, connect and engage. That is why the OAC Community exists. Our Community is designed to provide quality education, ongoing support programs, an opportunity to connect, and a place to take action on important issues.

### Through the OAC Community, you can get access to:

- Weight & Health Education • Community Blogs
  - Community Discussion Forum
  - Ongoing Support • Meaningful Connections
- AND MUCH MORE**



**JOIN TODAY: GO TO [OBESITYACTION.ORG/JOIN](http://OBESITYACTION.ORG/JOIN)**

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