

Weight Loss Before Joint Replacement Surgery

What is joint replacement surgery?

Joint replacement, or arthroplasty, is a surgery in which a damaged joint surface is replaced with a plastic or metal part. Osteoarthritis, rheumatoid arthritis and other diseases or injuries may increase wear and tear of joints and sometimes this damage can cause significant pain and disability.

What is obesity?

The terms "overweight" and "obesity" refer to body weight that is greater than what is considered healthy for a certain height. The most common way to find out whether you are overweight or obese is to figure out your Body Mass Index (BMI). BMI is an estimate of body fat, and it is one way to gauge your risk for diseases that occur with more body fat. People with a BMI of more than 30 are considered obese.

BMI is calculated from your height and weight, and both males and females use the same scale. Your health care provider will usually be able to figure out your BMI. You can also calculate it yourself with the online BMI calculator at:

<http://www.nhlbi.nih.gov/guidelines/obesity/BMI/bmicalc.htm>

What is Arthritis?

Arthritis is a joint disease. Joints become inflamed, swollen, stiff and painful. There are several types of arthritis. The most common types are:

- **Osteoarthritis (OA).** OA causes a breakdown of cartilage. Cartilage is the flexible, hard tissue that covers the ends of bones at joints. If the cartilage gets damaged, the bones may rub against each other which causes severe pain.

- **Rheumatoid Arthritis (RA).** RA causes the body's own defense system – the immune system – to cause inflammation of the joints and bones. RA is considered an autoimmune disorder.

What is the link between obesity and arthritis?

Being obese increases the risk of developing osteoarthritis. One in 5 Americans have been diagnosed, but according to the Centers for Disease Control and Prevention (CDC), that number jumps to more than 1 in 3 among obese people.

There are two reasons why carrying extra weight increases the risk of developing arthritis:

1. The extra weight increases the weight-load over the joints, especially the weight-bearing joints in the knees and hips. This added stress causes increased wear, tear and damage to the cartilage.
2. Fat creates and releases chemicals that cause inflammation. Having too many of these chemicals in the body may increase the chances that the joint can become inflamed.

Can I decrease my arthritis pain if I lose weight?

Yes. Studies have shown that losing weight can greatly improve arthritic pain. Every pound of excess weight puts about 4 pounds of extra pressure on the knees. Every pound you lose relieves pressure and stress on the joints. Having less body fat also decreases the amount of chemicals that cause inflammation.

What are the risks of joint replacement surgery in people who carry too much weight?

Every surgery carries the risk of complications, but people with too much weight have a much higher risk of major complications after joint replacement surgery. These include:

- **Infection**

Research studies have shown that overweight patients have double the rate of infection following total knee replacement surgery compared to patients

who are at a healthy weight. People carrying extra weight also have a higher rate of infection near the incision site as well as deep inside the new joint.

- **Heart problems**

The stress of surgery affects heart function. Studies have shown that overweight patients undergoing total hip replacement may have a higher rate of heart problems, including heart attacks, after surgery when they are compared to people having a BMI less than 30.

- **Blood clots**

Carrying extra weight increases the risk for developing a blood clot or clots after surgery. This condition is called deep venous thrombosis (DVT). The clots usually form in the legs, but they may travel to the lungs and become life threatening. A blood clot in the lungs is called pulmonary embolism (PE).

- **Need for a second surgery**

In a small portion of patients, the metal or plastic parts that have been placed in the joint move out of place or they become infected or damaged. If this occurs, the patient will need a second surgery. People with high BMI are more likely to need another surgery to repair the joint.

- **Less successful results**

Patient with a BMI greater than 30 may have less successful results when compared to people with a BMI less than 30. These people may also have less pain reduction and a smaller increase in range of motion after the surgery.

How can I reduce my risk for complications and increase my odds for a successful surgery?

You can greatly reduce your risk for complications and improve joint function after surgery by losing weight and reducing your BMI *before* having joint replacement surgery. Weight loss may decrease your pain to the point where surgery will no longer be needed. Weight loss may also be able to delay this procedure for a number of years. Artificial joints need to be replaced every 15 years, on average, so delaying the surgery is a good thing.

What are the best methods for losing weight?

Losing weight and keeping it off can be a challenge, but getting support can make it achievable. We have found that working with a Registered Dietitian (RD) and/or an established program leads to the best weight loss success. Amy Schneider, RD, CDE is a dietitian as well as a health and wellness coach. She holds a certificate of training in adult weight management. Amy's goal is to help every person figure out what they need to do to lose weight and keep it off. She believes in the importance of creating a plan that is not too severe or strict - no starvation diets required! Amy works at the Northville Health Center, but she is available by phone if this is too far from your home.

Exercise is another helpful part of any weight loss program. Joint problems can make it difficult to take a walk or use equipment at the gym. Swimming and doing seated exercises are great ways to move without putting more pressure on your joints.

Your primary care healthcare provider can also help you choose a healthy weight loss program that will fit your personal needs and preferences.

The Internet has so much information about weight loss that it can be overwhelming. Visit the Weight-control Information Network Website (WIN) to find credible information: <http://win.niddk.nih.gov/index.htm>.

Weight loss surgery

Bariatric surgery, also called weight-loss surgery, can be an effective way to promote weight loss for people who are not able to lose weight or maintain weight loss with diet and exercise alone. Studies have shown that people who have had bariatric surgery in order to lose weight for joint replacement surgery had less complications and much better outcomes than people with a BMI higher than 30. Most people can expect to lose between 35%-70% of their excess body weight one year after having bariatric surgery.

There are several types of bariatric surgery, but they all reduce appetite and restrict the amount of food that you can eat.

Who is a good candidate for Bariatric Surgery?

The U.S. National Institutes of Health recommends bariatric surgery for people with a BMI of at least 40 and people with a BMI of 35 plus other serious medical conditions such as diabetes, high blood pressure, high cholesterol or sleep apnea.

To qualify for bariatric surgery, patients must have tried to previously lose weight through diet and exercise, with or without medications, as well as attempting lifestyle changes. Just like joint replacement, there are risks associated with this surgery, but your bariatric surgeon will review the surgical options and potential side effects in detail before the surgery.

For more information about the University of Michigan Adult Bariatric Surgery Program, please give them a call at (734) 936-5738.

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