

Can Losing Weight Stop Heart Palpitations?

There is an epidemic of obesity in the United States. As of 2018, more than 2 in 5 (42.4%) adults were obese. Obesity doubles the risk of developing atrial fibrillation (AFib). The epidemic of obesity is projected to worsen over the coming decades. As more people experience weight gain and become obese, we can expect the prevalence of atrial fibrillation to increase as well. But, [can losing weight stop heart palpitations?](#)

Will losing weight help an arrhythmia like Atrial Fibrillation?

A recent weight loss study investigating weight loss amongst obese participants and its effect on their atrial fibrillation found that losing just 10% of body weight could help reverse AFib. Does this mean weight loss can cure atrial fibrillation? Not precisely. There is no actual cure for the abnormal heart rhythm (arrhythmia) that is atrial fibrillation but weight loss can significantly decrease AFib burden and prevent progression from intermittent (paroxysmal) AFib to continuous (persistent) or permanent AFib. The opposite is also true and AFib usually worsens and progresses in the setting of weight gain.

What is Obesity?

A person is considered to be overweight or obese when the body weight is greater than what is considered normal for the given height. Overweight and obesity are measured using body mass index (BMI). The BMI is calculated using a person's weight in kilograms divided by height in meters squared. Below are the BMI and weight classifications for adults over the age of 20 years.

BMI	Classification
18.5-24.9	Normal, or healthy, weight
25-29.9	Overweight
30-39.9	Obesity
40+	Severe, or morbid, obesity

You can use this [BMI calculator](#) available through the Center for Disease Control & Prevention (CDC) to determine your BMI.

BMI is an indicator of the amount of fat in the body. Typically a higher BMI means a higher percent body fat. A notable exception to this is someone with a lot of muscle mass, like a body-builder. Muscle weighs more than fat so a body-builder may have a misleadingly high BMI. For the rest of us non-bodybuilders, a higher BMI indicates a higher amount of body fat which is known to contribute to a variety of health problems.

Obesity and Afib

Being overweight or having obesity increases the risk of atrial fibrillation. In fact, research has shown that people who are overweight have a 40% increased risk of developing AFib compared to their normal weight counterparts. The risk of AFib is even greater in the setting of obesity and the same study showed that people who are obese are 87% more likely to develop atrial fibrillation compared to people with normal weight.

Weight gain incrementally increases the risk of atrial fibrillation. Research on the effect of weight gain and increasing BMI on AFib has shown that for every 5 point increase in BMI the risk of developing atrial fibrillation increases by 20-30%.

People with obesity are twice as likely to develop atrial fibrillation (AFib) as those with a healthy body weight.

Can obesity cause an irregular heartbeat and atrial fibrillation?

Obesity is an independent risk factor for atrial fibrillation. This means that obesity not only increases AFib risk by increasing [AFib risk factors](#), like high blood pressure, diabetes and obstructive sleep apnea, but obesity, in and of itself, increases the risk of developing atrial fibrillation. The exact mechanisms by which obesity contributes to AFib are not entirely understood but are thought to include:

- Increased blood volume which puts additional strain on the heart and increases blood pressure.
- Heart muscle thickening and heart chamber enlargement
- Decreased heart function and heart failure
- Increased systemic inflammation
- Over-activation of the sympathetic nervous system which leads to increased circulation of stress hormones.
- Fibrosis (stiffening) of the upper left heart chamber (left atrium)

Can AFib cause weight gain?

Atrial fibrillation does not cause weight gain. It can however indirectly contribute to weight gain. For example, beta-blockers are a common type of medication used to treat atrial fibrillation. Some people experience weight gain on beta-blockers. The amount of weight gain is fairly minimal and averages 2.6 pounds. Not all beta-blockers have the same effect on weight. Older beta-blockers like atenolol or metoprolol can lead to weight gain while newer beta-blockers, like carvedilol, do not affect weight. If you have noted weight gain after starting a beta-blocker, you can talk to your provider about trying a different beta-blocker. Note, if you abruptly gain weight after starting a new atrial fibrillation medication and develop swelling in feet/legs or new shortness of breath speak to your healthcare provider right away as this can be a sign of another heart problem, like heart failure.

Another indirect way that AFib can cause weight gain is by decreasing exercise capacity. Not everyone with atrial fibrillation experiences symptoms but amongst those who do, fatigue, decreased exercise capacity and shortness of breath are very common. Often, these symptoms cause people to become less active and to decrease exercise because they feel poorly when they try to exercise. If a person's activity level decreases significantly but there is not a corresponding decrease in calories, weight gain will occur. Unfortunately, weight gain often worsens AFib risk factors and makes atrial fibrillation treatments less effective.

Can AFib be cured by losing weight?

Sustained weight loss can help reverse the AFib arrhythmia and prevent AFib progression. The Reverse-AF study followed patients with obesity and atrial fibrillation over the course of 4 years. During that time, study participants took part in a weight loss program that used a motivational, goal-directed weight loss approach. They received specific dietary guidance, engaged in low-intensity exercise, maintained a daily dietary and exercise journal and received support counseling at frequent clinic visits. At the end of the 4 year study period, the participants who had lost at least 10% of their body weight were 6 times more likely to be AFib free without the need for AFib medications or procedures. Study participants who lost less than 10% of their body weight showed less improvement in their atrial fibrillation with only 22% of participants who lost 3-9% of their body weight and 13% of people in the less than 3% weight loss category experiencing freedom from AFib at the end of the study period.

Can AFib cause weight loss?

Atrial fibrillation does not cause weight loss. However, AFib can sometimes be seen in conjunction with other conditions that cause weight loss. The two most common causes of this are extreme weight loss and an overactive thyroid.

Extreme weight loss such as that seen with starvation diets or anorexia nervosa can lead to atrial fibrillation. The dehydration, ketosis, and electrolyte imbalances which occur as a result of starvation can upset the delicate balance needed to maintain a normal heart rhythm and may lead to atrial fibrillation.

Hyperthyroidism is a disease in which the thyroid produces too much thyroid hormone. There are a number of consequences of having an overactive thyroid, two of which are weight loss and atrial fibrillation. If you develop symptoms of unintentional weight loss and heart palpitations you should see your healthcare provider. If hyperthyroidism is causing atrial fibrillation, treating the overactive thyroid can reverse the AFib.

Can heart problems cause you to lose weight?

Advanced heart disease, like severe heart failure, can cause unintentional weight loss. This is called cardiac cachexia. When heart function is severely limited the heart is unable to effectively pump blood through the heart chambers and out to the rest of the body. Therefore, the system gets backed up and fluid accumulates in the legs, abdomen, and lungs. Excess fluid in the abdomen can decrease appetite and make it harder for the body to absorb nutrients from food. With severe heart failure the body has to work very hard to function. For example, as fluid builds in the lungs, a person has to work harder to breathe which burns more calories. Heart failure can also increase the body temperature which also burns more calories.

Cardiac cachexia cannot be fixed just by eating more calories. If you have developed severe heart failure as a result of atrial fibrillation and have developed signs of cardiac cachexia, you will work closely with your healthcare team to treat the atrial fibrillation and heart failure. Treatment recommendations may include:

- **Exercise.** Cardiac cachexia causes muscle wasting which contributes to weight loss. Exercise and strength training can help rebuild that muscle mass. Cardiac rehabilitation enables patients with atrial fibrillation and severe heart failure to participate in a supervised exercise program led by exercise physiologists and nurses who specialize in heart problems.
- **Diet and supplements.** A nutritionist can recommend the kind of diet that is best for someone with cardiac cachexia. Limiting salt intake is important since salt promotes fluid retention and makes swelling worse. Vitamin supplements like vitamin C and D and folate can also be helpful.
- **Medication optimization.** Heart failure medications may need to be adjusted to help remove excess fluid and therefore take pressure off the heart. AFib makes a sick heart work even less effectively so treatments (i.e. medications, cardioversion or ablation) to try to restore a normal heart rhythm may be recommended. Making sure the heart rate is tightly controlled is crucial if it is not possible to revert from atrial fibrillation to a normal rhythm.
- **Appetite stimulants.** If a person with cardiac cachexia is not getting enough calories because of loss of appetite, a medication that stimulates the appetite may be prescribed.
- **Cardiac resynchronization therapy.** A device that is implanted to help the heart muscle work more effectively. Cardiac resynchronization therapy can improve heart function and decrease fluid accumulation in the body. This allows the body to once again perform like breathing and digestion with less expenditure of calories.

Can you reverse AFib with diet and exercise?

For some people, atrial fibrillation can be reversed with diet and exercise. The Reverse-AF study described above demonstrated the benefits of weight loss on atrial fibrillation. This study focused primarily on the effect of diet and weight loss on AFib. The Cardio-FIT study investigated the benefits of exercise and weight loss on atrial fibrillation amongst people with obesity and AFib.

This study followed participants for 4 years and found that baseline fitness and subsequent improvements in cardiorespiratory fitness impacted atrial fibrillation occurrence. During this study, people with obesity and atrial fibrillation participated in a physician-led exercise program. This program was designed to improve exercise capacity and lead to weight-loss. Almost 90% of participants who had minimal improvement in their exercise capacity experienced AFib recurrence. This is contrasted with AFib recurrence in only 40% of participants who had greater gains in fitness level.

Decreasing your weight

Sustained weight loss is the best way to reverse the negative health effects of obesity. The goal of weight loss is actually weight management because losing weight is a journey not a one time destination.

The Reverse-AF study demonstrated that weight fluctuations decreased the benefits of weight loss on AFib. In the study, participants who experienced a 5% weight fluctuation (i.e. losing and then regaining weight) were twice as likely to have recurrence of atrial fibrillation when compared to their study counterparts whose weight remained stable.

People are most likely to achieve weight loss if they adopt sustainable lifestyle changes. Fad diets are rarely effective at maintaining weight loss over the long term because they are difficult to adhere to over time. They tend to contribute to what is referred to as yo-yo dieting in which a person repeatedly loses and gains weight and ultimately ends up weighing more than they did to begin with.

Maintaining an ideal body weight is not about starvation and deprivation. There is so much conflicting dietary advice available which can make it confusing to know what to eat. A healthy diet does not need to be complex or difficult. Studies that compare various diets have repeatedly found that the best diet is the one that you can stick to over time. The Mediterranean diet often gets top marks because it is sustainable. This makes sense because it is based on the diet of a food-loving culture that values eating a variety of food that is fresh and flavorful.

It takes additional time and preparation to eat a healthy, well-balanced diet but eating well does not mean that you need to spend the whole day in the kitchen. Here are some tips for making eating a healthy diet a realistic part of your life:

- **Plan ahead.** Once a week meal planning can save you from the last minute, ‘what’s for dinner? – I have nothing in the fridge. – I guess we’ll order pizza’ trap that is so easy to fall into with our busy schedules. There are a number of weekly meal planning resources available online. Some even include shopping lists which make the process that much easier.
- **Have healthy snacks on hand.** Remember that sustained weight loss is not about starving yourself. Going for long periods between meals can make it more difficult to make healthy choices at meal-time because your brain is telling you that you are starving so you should definitely eat high-sugar and high-fat foods and a lot of them. Obviously, this is counterproductive and takes you away from your healthy lifestyle goals. Nuts, fruit, chopped veggies, hummus, and low-fat yogurt are good snack options. At the beginning of the week, you can chop and prepare veggies so they are easy to grab and take with you if

you will be on the go throughout the day.

- **Stick to the perimeter of the grocery store.** A healthy diet is one that is high in vegetables, fruits, lean protein, whole grains, nuts and beans. It is low in salt, processed sugars and saturated or trans fats. In general, the healthy foods in the grocery store are located around the perimeter and the foods to avoid are located on the aisles (i.e. the chips and cookie aisles).

In addition to eating healthy food, being physically active is an important part of a healthy lifestyle. The American Heart Association recommends that adults get at least 150 minutes of moderate-intensity exercise per week. It is preferable for the exercise to be spread out over the course of the week which would translate to 20-30 minutes of exercise on most days. Getting 75 minutes of vigorous physical activity per week is an alternative to the 150 minutes of moderate-intensity exercise. In addition the AHA recommends that adults:

- Incorporate moderate- to high-intensity muscle-strengthening activity or weight-lifting on at least 2 days per week.
- Spend less time sitting because even light-intensity activity can offset some of the risks associated with being sedentary.
- Increase the amount and intensity of exercise gradually over time. Being active for at least 300 minutes per week has even more benefits than 150 minutes of activity.

Will losing weight help arrhythmia?

There are a number of risk factors for atrial fibrillation including age, gender, ethnicity, and family history that are not influenced by weight loss. However, weight loss does have a significant positive impact on modifiable AFib risk factors and can help decrease atrial fibrillation by multiple mechanisms:

- **Reversal of the systemic effects of obesity.** Sustained weight loss decreases the negative health effects of obesity. The body has an amazing capacity to heal and as weight loss is maintained systemic inflammation improves, blood volume normalizes, blood pressure decreases, and stress hormones decrease. These changes can lead to reversal of the structural and functional changes in the heart that were caused by obesity. As the system normalizes, a number of AFib triggers are removed and AFib burden tends to decrease.
- **Improved treatment efficacy.** Obesity decreases the effectiveness of atrial fibrillation treatment. Multiple studies have demonstrated that weight loss improves the efficacy of AFib medications and procedures, like ablation.
- **Fewer AFib risk factors.** Obesity contributes to AFib risk factors like high blood pressure, obstructive sleep apnea, heart disease, lung disease, and diabetes. As obesity improves, many of these health conditions also improve or resolve.

Can losing weight stop heart palpitations?

Obesity is not the only cause of heart palpitations and atrial fibrillation. Therefore, losing weight is not guaranteed to reverse AFib. However, losing weight with the goal of maintaining an ideal body weight can help reduce AFib burden, improve the effectiveness of [atrial fibrillation](#) treatments and improve overall quality of life.