What Causes Atrial Fibrillation?

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The Top Five AFib Causes to Be Aware Of

With contributions from Debbie.

Atrial fibrillation (AFib) is a frequently occurring heart arrhythmia and continues to increase in prevalence. AFib affects 20.9 million men and 12.6 million women worldwide, with roughly 5 million new cases discovered each year.

AFib risk increases as we age and occurs more than 33 percent of the time in people age 80 or older. AFib also increases the risk of developing other dangerous conditions such as dementia, heart failure, stroke, and complications such as blood clots.

AFib happens because of recurrent irregular electrical signals passing from the sinus node to the upper chambers of your heart called the atria. These inconsistent signals cause the atria to contract in a fast and chaotic pattern which often produces symptoms like shortness of breath, chest discomfort, fatigue, and dizziness.

What Causes AFib?

AFib often occurs because of a defect or damage within the structure of the heart muscle. The specific underlying cause of AFib is unknown. Some of the conditions that may lead to AFib include heart valve disease, sick sinus syndrome, coronary artery disease, sleep apnea, and high blood pressure.

Keep on reading to learn more about each of these possible AFib causes.

Heart Valve Disease

Valvular AFib happens as a result of heart valve disease. If you have an artificial valve or your cardiologist has diagnosed you with mitral valve disease, you are more prone to develop this type of AFib.

Several types of valvular abnormalities can create problems with blood flow and place you at higher risk of experiencing AFib. Two common conditions are:

- Mitral valve stenosis, which is a stiffening and thickening of the mitral valve that narrows the opening and reduces the amount of blood that can flow into the left ventricle.
- Mitral regurgitation is a condition that prevents the valve from closing completely and allows blood to leak back into the atrium.

You are also at high risk of developing valvular AFib if you have had valve replacement surgery using an artificial valve.

Sick Sinus Syndrome

Sick sinus syndrome is a condition linked to sinus node defects and is most prevalent in people age 50 and older.

Sick sinus syndrome can appear when there is scarring within the heart's electrical pathways. The damage to the specialized tissue interrupts normal impulse transmission and can produce slow, fast, or irregular heartbeats.

The disorder is unusual and can require the implantation of a pacemaker to control the irregular rhythm.

Coronary Artery Disease

Coronary artery disease, sometimes known as atherosclerosis, occurs when there is damage to the innermost layer of the heart's arteries. During the healing process, scar tissue forms in the arteries with cholesterol accumulating on top.

The combination of the cholesterol and scar tissue, called plaque, builds up and creates an arterial narrowing. The decreased blood flow to the heart can lead to a heart attack if the artery becomes completely blocked.

If the heart attack damages the heart muscle enough to lead to heart failure, it can trigger AF. AF is also a common side effect when a cardiovascular surgeon performs coronary artery bypass graft (CABG) to return blood flow to the heart after the heart attack has stopped.

Sleep Apnea

Sleep apnea is a severe sleep ailment that increases the risk of AFib as well as other conditions including type II diabetes, blood pressure, and different types of cardiovascular disease.

Sleep apnea happens when there is a temporary obstruction of your airway, which produces pauses in your breathing while you sleep. You can experience these interruptions many times during an average night's sleep.

Interrupted nighttime breathing places an increased demand on your cardiovascular system. The disruption in normal airflow can trigger abnormal transmission of your heart's electrical signals that can result in an episode of AFib.

High Blood Pressure

High blood pressure, or hypertension, results from the high force of blood flowing through the arteries and causes slow but steady injury. High blood pressure is the primary reason for the occurrence of stroke and often happens in people who have AFib.

The presence of high blood pressure can lead to a considerable increase in the risk of developing new AFib, as well as having it evolve into permanent AFib.

High blood pressure can lead to changes in the heart's structure such as remodeling of the left atrium, which plays major a role in the onset of AFib. High blood pressure can also altar critical electrical configurations necessary for maintaining a normal heart rhythm.

Other Common AFib Causes

First, there are some known contributing risk factors for AFib:

- **Smoking.** Stopping smoking will decrease your risk for AFib by 36 percent. If you haven't been nagged about this, you must be a hermit who never sees the doctor.
- **Alcohol.** One drink a day increases AFib risk, if it is a trigger for you. What's more important? Your heart

or a few hours of fun?

- **Stimulants.** This includes coffee, tea, energy drinks, sugar, and chocolate. Some AFibbers can't get near caffeine, sugar or chocolate — others can. Long-term, high use can be a problem.
- **Diabetes.** This increases the risk of AFib by 40 percent. Control your blood sugar with the right foods, walking and potentially medications.
- **Obesity.** Increases the risk of AFib by 52 percent, or an increase of four percent per one point in BMI.
- **Stress.** Increases the risk of AFib by three to five percent. Who doesn't have stress? That hermit I mentioned earlier? Magnesium taurate is especially helpful for anxiety and some sleep issues for AFibbers. Acupuncture, Tai Chi and meditation can also help.
- **Genetics.** If you have a first-degree relative (parent or sibling) with AFib, this increases your risk by 40 percent. Not much can be done for this one.
- **NSAID use longer than four weeks.** This increases your risk of AFib by 12 percent. If you've been taking pain meds over-the-counter, it may be time to find the root of the pain or help alleviate it with other methods like mindfulness, gentle yoga, or acupuncture.

How to Prevent an AFib Episode

The good news is there are lifestyle adjustments you can make to decrease your chances of experiencing an AFib episode if you have any of these conditions.

- Control your high blood pressure and cholesterol, and manage your weight with consistent heart-healthy meals that are rich in fresh and frozen fruits and vegetables, good fats, and lean unprocessed meats. Choose reasonable portion sizes and limit alcohol and caffeine intake.
- Don't use tobacco products, and if you do partner with your physician to learn about effective quitting strategies.
- Engage in a regular exercise program that includes strength training and aerobic activities.
- Take your medications as prescribed and make sure to schedule regular follow-up appointments with both your primary physician and your cardiologist.

Following a heart-healthy lifestyle, maintaining a consistent medication schedule, and going in for regular checkups with your healthcare team is the best way to manage the harmful effects of AFib.