

What is Atrial Fibrillation?

What is atrial fibrillation?

Atrial fibrillation is a problem with the heart rhythm in which the heart's two small upper chambers (the atria) quiver instead of beating normally. As a result, blood does not completely empty out of the atria, causing it to pool in the heart and sometimes clot.

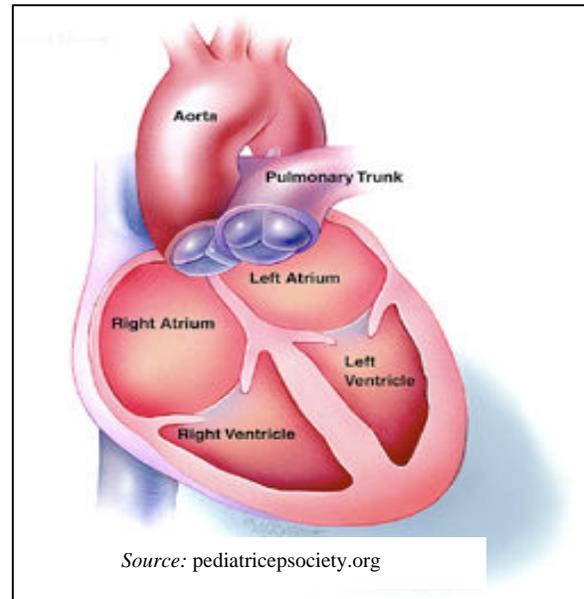
Atrial fibrillation is a common heart problem that affects people of all ages, and the likelihood of developing it also increases with age. According to the American Heart Association, 3 to 5% of people over the age of 65 have atrial fibrillation.

Atrial fibrillation can lead to other health problems, such as stroke, heart attack, or heart failure. These problems often can be prevented when atrial fibrillation is managed through a healthy lifestyle and medical treatment. You play a key role in this health management.

What causes atrial fibrillation?

The muscles of the heart contract and pump blood because they are stimulated by a small electric current in the heart muscles. This electric current starts in the atria and travels down to the lower chambers of the heart, called the ventricles. The atria collect all of the blood that comes into the heart; then they pump together to empty the blood into the ventricles. The ventricles then pump together to empty the blood out of the heart. The electrical current in a healthy heart is well-timed so that blood empties out of the heart and is pushed throughout the rest of the body.

With atrial fibrillation, this electrical system in the heart muscle does not work properly. This makes the atria beat very quickly and unevenly, causing the blood to pool and sometimes clot in the upper chambers.



What are the symptoms of atrial fibrillation?

Symptoms of atrial fibrillation may include:

- Palpitations (a sensation of your heart pounding in your chest)
- Weakness or tiredness
- Shortness of breath
- Chest pain or tightness
- Dizziness or lightheadedness
- Fainting spells

How is atrial fibrillation diagnosed?

A diagnosis of atrial fibrillation may be made after a thorough health history and physical exam by your physician, and through certain tests to evaluate your heart rhythm. These tests may include:

- An electrocardiogram (EKG or ECG) to record the electrical activity in your heart and measure your heart rate and regularity.

- A holter monitor, which is a portable monitor you would wear for 24 hours to continually record the electrical activity in your heart.
- An echocardiogram, which uses sound waves to record a video picture of your heart in motion.
- Electrophysiology study (EPS), which is another test to evaluate the electrical activity and rhythm of the heart. For this test, electrode wires are placed through blood vessels directly into your heart to evaluate where the electrical signals begin and how often they are sent through the heart muscles.

How is atrial fibrillation treated?

There are several ways to treat atrial fibrillation, including medical management and surgery:

- Medications may be ordered to slow down a rapid heart rate. The three main categories of medications include digitalis (digoxin), beta blockers (atenolol, metoprolol, propranolol), and calcium channel blockers (verapamil, diltiazem).
- Intravenous medications to correct the heart rhythm.
- You may need medications to thin your blood. This is called anticoagulant therapy. This may prevent blood clots from forming and then traveling to other parts of your body, such as to your brain (stroke), lungs, or elsewhere. Some examples of anticoagulants include Coumadin, heparin and Lovenox.
- Electrical cardioversion, which uses electric shock to restore normal rhythm when medications do not improve symptoms.
- Catheter ablation, which is a procedure that is occasionally done when medications and

electrical cardioversion do not restore the regular heart rhythm. Catheter ablation destroys a few of the cells in the heart muscle that cause the fast heart rhythm.

- Sometimes all of the cells in the atria that conduct electrical current must be destroyed to slow down the heart rhythm. If this happens, then the physician will implant a pacemaker under the skin to regulate the heart rhythm.

Staying in Touch with your Physician

It is important to continue to see your physician for follow up appointments after you leave the hospital. If your symptoms of atrial fibrillation return, it is important to call your physician right away to seek medical attention and to help prevent complications.

Stroke and Atrial Fibrillation

Stroke is a risk of atrial fibrillation. Blood clots that form in the atria may travel out of the heart and become lodged in a blood vessel in the brain. The symptoms of stroke include:

- Severe, sudden headache
- Weakness, numbness, tingling, or loss of feeling in your face, arm or leg
- Trouble seeing or double vision
- Trouble speaking or understanding others
- Loss of balance, dizziness, blackouts

If you experience symptoms of stroke, call 911 or emergency services immediately

Sources:

American Heart Association @ americanheart.org

National Heart, Lung, Blood Institute @ nhlbi.nih.gov

Stay Well Company (1999). *Understanding Atrial Fibrillation* @ www.krames.com

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For more information, or to learn about the specialized services and programs available at Danbury Hospital, please visit www.DanburyHospital.org