

An Overview of Atrial Fibrillation

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Editorial

The most common abnormal heart rhythm that begins in the atria is atrial fibrillation (AF or AFib). Instead of the SA node (sinus node) directing the electrical rhythm, numerous distinct impulses fire at the same time in the atria, resulting in a highly fast, chaotic beat. The atria cannot efficiently contract and/or squeeze blood into the ventricle because the electrical impulses are so rapid and disorganised [1].

Many impulses begin at the same time and spread through the atria, contending for a chance to move through the AV node, rather than migrating in an orderly method through the heart. Although the AV node reduces the number of impulses that reach the ventricles, many impulses pass through in a disordered and rapid way. A rapid and irregular heartbeat is caused by the ventricles contracting erratically. In the atria, the pace of impulses can range from 300 to 600 beats per minute. Atrial fibrillation is divided into two categories. Paroxysmal means it comes and goes, whereas continuous means it is constant [2].

Causes of atrial fibrillation

Although atrial fibrillation is linked to a variety of diseases, there is no single "cause" for it.

The most common reasons:

- Following heart surgery
- Cardiomyopathy
- Chronic obstructive pulmonary disease (COPD)
- Congenital heart disease (CHD) is a congenital cardiac defect
- Coronary artery disease (CAD) is a condition that affects the
- Insufficiency of the heart
- Valve disease of the heart
- Hypertension is a condition in which the blood pressure (high blood pressure)
- Hypertension of the lungs

Causes those are less common:

- Hyperthyroidism
- Pericarditis is a viral infection that affects the heart.
- In at least 10% of instances, there is no evidence of underlying cardiac disease. AF may be linked to excessive coffee or alcohol consumption,

stress, certain medicines, electrolyte or metabolic abnormalities, severe infections, or genetic reasons in these circumstances. There are times when no cause can be found.

The risk of AF rises with age, especially after the age of 60 [3].

Symptoms of atrial fibrillation

You may have atrial fibrillation without having any symptoms. If you have symptoms, they may include:

- Heart palpitations are a beating, fluttering, or racing sensation in the chest that occurs suddenly.
- Feelings of exhaustion or a lack of energy
- Light-headedness or faintness is symptoms of dizziness.
- **Discomfort in the chest:** pain, pressure, or discomfort in the chest.
- **Shortness of breath:** Having trouble breathing throughout everyday tasks and even when at rest.

Diagnosis of atrial fibrillation

The following are the most often used tests to diagnose atrial fibrillation [4-5]:

The Electrocardiogram (ECG or EKG) depicts the electrical impulses passing through the heart muscle on graph paper. An EKG is a type of electrocardiogram that records the electrical activity of the heart.

A specific monitor may be needed to "catch" the arrhythmia in those who have intermittent symptoms.

A small external recorder is worn for a brief length of time, usually one to three days, on a holter monitor.

A small external recorder is worn for a brief length of time, usually one to three days, on a holter monitor. Electrodes (sticky patches) are applied to your chest skin. The electrodes are connected to the monitor by wires. The monitor continually records and stores the electrical impulses. After the monitor is removed, a technician analyses the data on a computer to determine the heart's rhythm.

- Patients with less frequent irregular heartbeat episodes and symptoms should use a portable event monitor for roughly a month. Electrodes (sticky patches) are applied to your chest skin. The electrodes are connected to the monitor by wires. When symptoms arise, the patient presses a button to activate the monitor. For several seconds, the instrument records the electrical activity of the heart. The patient then sends the device's recorded data to the doctor's office for evaluation over a phone connection. The portable event monitor might help you figure out which heart rhythm is causing your symptoms.
- A strip of your present heart rhythm can be broadcast to your doctor's office over the phone, using a monitor with two bracelets or by pressing the monitor on your chest wall, when you develop symptoms of atrial fibrillation.

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Conflict of Interest

- None.

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