

What is Atrial Fibrillation (AFib)?



UpBeat
By Heart Rhythm Society

THE STATS

- AFib is the **most common** type of cardiac arrhythmia.
- **40 million individuals worldwide** and **6 million people in the U.S.** live with AFib.¹
- The Centers for Disease Control and Prevention predict that **12.1 million people in the U.S.** will have AFib by 2030.²

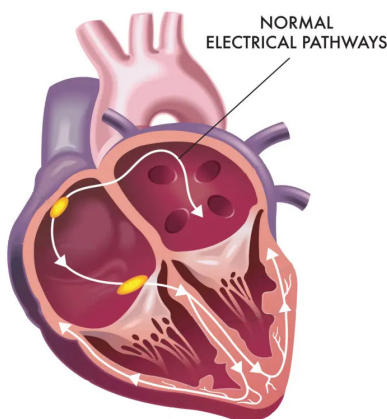
THE BASICS

Atrial Fibrillation, AFib for short, is a problem with how your heart functions, causing an irregular heartbeat. With AFib, your heart may beat too fast, switch back and forth from fast to slow, or skip beats, preventing your heart from pumping blood to the rest of your body normally.

AFib may start suddenly and then stop on its own, or it may become a long-lasting problem. It is an illness that can become worse if it's not treated.



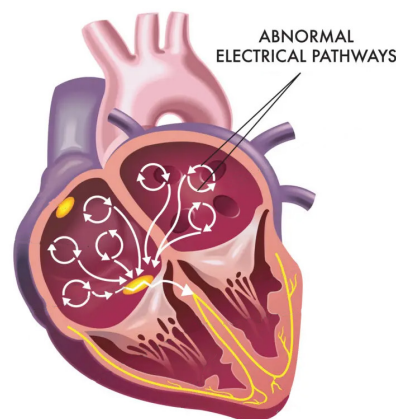
NORMAL HEART



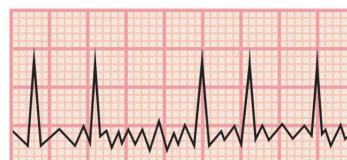
Normal ECG



HEART WITH AFIB



Atrial Fibrillation



¹Calkins H, Reynolds MR, Spector P, Sondhi M, Xu Y et al. (2009) Treatment of atrial fibrillation with antiarrhythmic drugs or radiofrequency ablation: two systematic literature reviews and meta-analyses. *Circ Arrhythm Electrophysiol* 2 (4): 349-361

²Schnabel R, Pecun L, Engler D, et al. (2018) Atrial fibrillation patterns are associated with arrhythmia progression and clinical outcomes. University of Birmingham doi 10.1136/heartjnl-2017-312569

THE TYPES

The type of AFib you are diagnosed with could change over time. It depends on how often AFib occurs and how it responds to treatment:

- **Paroxysmal AFib:** This type of AFib occurs occasionally and then stops. An episode may last for seconds, minutes, hours, or days before the heart returns to its normal rhythm. People with this type of AFib often have more symptoms than others. As the heart goes in and out of AFib, the pulse rate may change from slow to fast and back again in short periods of time.
- **Persistent AFib:** This type of AFib does NOT stop by itself. Various treatments may help return the heart to its normal rhythm. Talk to your doctor about your treatment options for persistent AFib.

THE CAUSES

Sometimes, the reason people get AFib is unknown. Other times, the system that signals the heart to beat is damaged. Different problems may cause this damage, with the most common being:

- **Heart-related problems**, such as high blood pressure, coronary artery disease, heart failure, heart valve disease, and heart surgery (AFib is the most common complication after heart surgery)
- **Other health problems**, such as sleep apnea, thyroid disease, lung disease or lung cancer, drinking too much alcohol, being seriously ill, or having an infection

THE SIGNS & SYMPTOMS

AFib is different from person to person. Signs and symptoms of AFib can include:

- Irregular heartbeat (e.g., fast, slow, or both)
- Heart palpitations (i.e., pounding, fluttering, or flip-flopping)
- Feeling overly tired or having low energy
- Shortness of breath
- Chest pain, pressure, tightness, or discomfort
- Dizziness, lightheadedness, or fainting
- No symptoms at all

It is important to see a doctor early if you have symptoms of AFib. Make an appointment if you notice something different or bothersome with your heartbeat.

THE RISK FACTORS

Your risk of developing AFib increases with:

- Advanced age (60+)
- High blood pressure
- Obesity
- European ancestry
- Diabetes
- Heart failure
- Ischemic heart disease
- Hyperthyroidism
- Chronic kidney disease
- Moderate to heavy alcohol use
- Cigarette/nicotine use
- Enlargement of the chambers on the left side of the heart

Sometimes people get AFib for unknown reasons. Even people with healthy lifestyles who have no other medical problems can get AFib.

THE COMPLICATIONS

This type of irregular heartbeat gives you a 5x higher risk of stroke. During AFib, the atria contract chaotically, and because they are not pumping blood properly, blood pools and gets stuck inside the heart. Blood clots may form, which could get pumped to the brain and interrupt the brain's blood flow, resulting in a stroke.

PEOPLE WITH AFIB ARE

5X 

more likely to have a stroke than those without AFib, and the strokes are worse.

CHA₂DS₂-VASc

Individual stroke risk depends on a variety of factors, including age, medical conditions, and others. **Your provider may measure your individual risk of stroke using the CHA₂DS₂-VASc risk criteria chart below.** Points are assigned for each major stroke risk factor. By adding the points, your provider can determine your stroke risk. **Higher total points (up to the maximum score of nine) mean a higher risk of stroke.** The stroke risk calculator does not apply to patients with mitral stenosis, mechanical heart valves, or patients with hypertrophic cardiomyopathy.

CHA ₂ DS ₂ -VASc Risk Criteria	Points
Congestive Heart Failure	1
Hypertension (High Blood Pressure)	1
Age > 75 Years	2
Diabetes Mellitus	1
Prior Stroke or Mini Stroke ("Transient Ischemic Attack")	2
Peripheral Vascular Disease or Coronary Artery Disease	1
Age 65-74 Years	1
Sex Category (i.e., Female Sex)	1

THE DIAGNOSIS

If your doctor thinks you may have AFib, the first thing they'll do is ask you questions about your symptoms and listen for an irregular heartbeat through a stethoscope. They may also do tests to be sure of the diagnosis. These tests will help them figure out the reason for your irregular heartbeat and the best way to treat it:

- Electrocardiogram (ECG/EKG): Simple, painless test that is the most helpful in diagnosing AFib
- Holter or Event Monitor
- Echocardiogram (Echo): Transthoracic or Transesophageal (TTE/TEE)
- Cardiac computerized tomography (CT)
- Magnetic resonance imaging (MRI)
- Digital wearables (e.g., Apple Watch, etc.)

THE TREATMENT

Once you are diagnosed with AFib, you and your doctor will make a treatment plan that is right for you. Your treatment plan may include being referred to a heart specialist, which might be a general cardiologist or a cardiologist who treats heart rhythm problems (electrophysiologist). Your doctor may treat your AFib diagnosis in different ways, such as with:

- Medication (e.g., blood thinners)
- Procedures/Interventions (e.g., ablation, pacemaker, cardioversion, etc.)
- Lifestyle modifications (e.g., diet, exercise, limiting alcohol, no smoking, etc.)

Every patient is different, but there are **four main strategies** for managing AFib. You may hear your doctor call these the **Four Pillars of AFib Care**. Depending on your needs, your doctors may recommend one or more of these strategies.

PILLAR 1: RATE CONTROL

Managing or Preventing Your Heart From Beating Too Fast

Lowering your heart rate is an important part of treating AFib and there are many options to achieve this goal:

Medications

Your doctors may prescribe rate-control medications called beta-blockers or calcium channel blockers to slow the heart rate when in AFib.

Pacemakers

A pacemaker is a small device implanted under the skin near the collarbone that monitors the heart's rhythm and sends a controlled electrical pulse to the heart muscle if it identifies a slow rate.

PILLAR 2: RHYTHM CONTROL

Returning to and Maintaining a Normal Heart Rhythm

People living with AFib may have an irregular heartbeat that feels like a fluttering in their chest or a strong pulsation in their chest or throat, called palpitations.

Medications

Your doctors may recommend special medications called antiarrhythmics to maintain a normal rhythm.

Catheter Ablation

The physician inserts a catheter into a blood vessel at the groin and gently guides it to the heart, where an electrical map is made to determine the electrical properties of the tissue. Energy is applied to the appropriate area to create a "scar" so that abnormal signals can no longer fire.

Electrical Cardioversion

A non-medicinal rhythm control option is electrical cardioversion, during which an electrical shock is administered to the chest (while the patient is under mild anesthesia) using paddles or patches. The goal of the shock is to "reset" the heart to a normal rhythm.

PILLAR 3: STROKE PREVENTION

Preventing Formation of Blood Clots

Blood thinners, or anticoagulants, may be prescribed to prevent the formation of blood clots that can lead to a stroke.

PILLAR 4: RISK FACTOR MANAGEMENT

Focusing on Lifestyle Choices and Modifications

Living a "heart healthy" lifestyle can ease AFib symptoms and benefit your overall health:

- Eating a healthy diet and maintaining a healthy weight
- Exercising moderately and regularly (Please note: Extreme exercise in certain circumstances may increase your risk of AFib. Talk to your doctor before you start a new exercise routine.)
- Avoiding or limiting the use of tobacco, recreational drugs, caffeine, and alcohol
- Managing your diabetes
- Controlling your blood pressure and cholesterol
- Treating sleep apnea (if present)
- Avoiding unnecessary stress
- Having regular physical exams



See a doctor early if you are experiencing signs of AFib.

Visit [UpBeat.org](https://www.upbeat.org), the Heart Rhythm Society's patient and caregiver resource center, for more helpful information about heart rhythm disorders.