What is Atrial Fibrillation (AFib)?

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.

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
- Dizzinesses, 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.

CHA$_2$DS$_2$-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 CHA$_2$DS$_2$-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.

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<tr>
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<tr>
<td>Congestive Heart Failure</td>
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<tr>
<td>Hypertension (High Blood Pressure)</td>
<td>1</td>
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<tr>
<td>Age &gt; 75 Years</td>
<td>2</td>
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<tr>
<td>Diabetes Mellitus</td>
<td>1</td>
</tr>
<tr>
<td>Prior Stroke or Mini Stroke (“Transient Ischemic Attack”)</td>
<td>2</td>
</tr>
<tr>
<td>Peripheral Vascular Disease or Coronary Artery Disease</td>
<td>1</td>
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<tr>
<td>Age 65-74 Years</td>
<td>1</td>
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<td>Sex Category (i.e., Female Sex)</td>
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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, the Heart Rhythm Society’s patient and caregiver resource center, for more helpful information about heart rhythm disorders.
You or your loved one may have been diagnosed with Atrial Fibrillation. You should know that you are not alone. There are many people around the world with this condition. It is the most common heart rhythm condition.

This diagnosis comes with many questions and terms that may be hard to understand. After reading the information below, we hope that you will feel more comfortable:

- Taking an active role in your treatment decisions
- Having open and honest conversations with your doctor about your concerns

The Basics of Atrial Fibrillation

WHAT IS ATRIAL FIBRILLATION?

Atrial Fibrillation, AFib for short, is a problem with how your heart beats. With AFib, your heart may beat too fast, switch back and forth from fast to slow, or skip beats. We call this type of heartbeat “irregular.” AFib may start suddenly and then stop on its own, or it may become a long-lasting problem.

With AFib, your heart can’t pump blood out to your body in a normal way. AFib is an illness that can become worse if it’s not treated.

This type of irregular heartbeat gives you a higher risk of stroke and other heart problems.

HOW AND WHY DO PEOPLE GET AFIB?

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
- Heart surgery (AFib is the most common complication after heart surgery)

Other problems such as
- Sleep apnea
- Thyroid disease
- Lung disease or lung cancer
- Drinking too much alcohol
- Being seriously ill or having an infection

Some people are more likely to get AFib than others. You have a higher chance of getting AFib if:

- You are older than 60
- You smoke
- You have diabetes
- You are overweight
- You have a family history of AFib
- You exercise often and hard

Even people with healthy lifestyles who have no other medical problems can get AFib.

In 2017, at least 37.5 million people were living with AFib around the world.
WHAT ARE THE SIGNS AND SYMPTOMS OF AFIB?

The signs and symptoms of AFib are different from person to person. Some people with AFib feel no symptoms at all. They might not even know they have AFib or that there is a problem. Others can tell as soon as it happens. AFib symptoms can be bothersome and frightening.

Signs and symptoms include:
- Feeling overtired or having little to no energy
- Having a faster-than-normal heartbeat or a heartbeat that switches between fast and slow (irregular)
- Having shortness of breath
- Feeling like your heart is racing or pounding
- Finding everyday exercises or activities harder than usual
- Having chest pain, pressure, tightness, or discomfort
- Feeling dizzy or lightheaded, or fainting

It’s 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.

HOW IS AFIB DIAGNOSED?

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. The tests will help them figure out the reason for your irregular heartbeat and the best way to treat it.

A few tests can be done to check for an irregular heartbeat. An ECG or EKG for short, is a simple, painless test that is the most helpful in diagnosing AFib.

It can measure how fast your heart beats and the type of heartbeat you have. It can also measure the timing of the signals passing through your heart.

An ECG can be done in a doctor’s office. During this test, special stickers, called electrodes, are temporarily attached to your chest, arms, and legs. The electrodes pick up signals from your heart. The ECG test gives your doctor a picture of your heart’s activity.

Sometimes, the ECG done in the doctor’s office does not catch your AFib, and a test that lasts longer is needed. In this case, your doctor will ask you to wear a special monitor or a mobile device to keep track of your heart over a longer period of time.

WHAT IS THE TREATMENT FOR AFIB?

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 that treats heart rhythm problems (electrophysiologist).

AFib can be treated in different ways. Treatments such as medications, non-surgical procedures, and surgery can slow down your heartbeat and bring it back to normal. Since AFib can cause blood clots to form in the heart, and the clots could then cause a stroke, patients are also often prescribed blood thinners to prevent blood clots from forming.

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Navigating Your Treatment Strategies

WHAT ARE THE DIFFERENT TREATMENT STRATEGIES FOR MANAGING MY ATRIAL FIBRILLATION (AFIB)

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.

FOUR PILLARS OF AF MANAGEMENT

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<td>PREVENTING BLOOD CLOTS FROM FORMING</td>
<td>FOCUSING ON LIFESTYLE CHOICES</td>
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Lowering your heart rate is an important part of treating AFib.

Your doctors may prescribe rate control medications. You may hear your doctors talking about these medications, called “beta blockers” or “calcium channel-blockers. Your doctors may suggest this type of drug based on your medical history, how well the drug may work for you, and its side effects.

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. These are called palpitations.

Your doctors use special medications or procedures to return your heart to a regular heartbeat (normal rhythm).

Learn more about rhythm control here: https://upbeat.org/patient-videos

Atrial fibrillation can cause a 5x greater risk of stroke.

Your doctors may prescribe medications called “blood thinners” or anticoagulants to keep blood clots from forming or getting bigger. This is important because travelling blood clots can cause a heart attack or stroke. Talk to your doctor to see if these medications are right for you.

Learn more about stroke prevention here: https://upbeat.org/documents/AFib-StrokePrevention/download

Some medical conditions that increase your risk are diabetes, obesity, sleep apnea and high blood pressure. Some lifestyle choices adding to the risk are habits like smoking, lack of physical activity, and misuse of drugs and alcohol.

Your multidisciplinary care team will work with you to figure out your particular risk factors and create a plan on how to address them.

Learn more about risk factor management here: https://upbeat.org/patient-information-sheets
DURING YOUR AFIB EXPERIENCE, YOU MAY HAVE APPOINTMENTS AT DIFFERENT TYPES OF HEALTHCARE FACILITIES:
- Inpatient or outpatient clinics, and sometimes the emergency room
- Cardiovascular or anticoagulation clinics
- Sleep or weight loss clinics
- Other health care specialists as needed

WHO IS ON MY CARE TEAM?
Navigating a new atrial fibrillation (AFib) diagnosis can feel confusing and scary. You are not alone. Your care team is there to help and support you through all parts of your experience with managing AFib. Your care team includes every type of doctor, nurse, or healthcare professional who touches your care.

YOUR CARE TEAM MAY INCLUDE:
- Your primary care provider (PCP), your general cardiologist, your surgeon, your heart rhythm doctor (electrophysiologist, or EP), your nurses, and other specialists
- Pharmacists, dieticians, or rehabilitation and physical therapists and other health care providers as needed
This may feel overwhelming, but each member of your care team plays an important role in coordinating the best care for you. **Ask your primary care physician which member of the care team will manage your AFib care for the long-term.**

**WHAT IS A HEART RHYTHM DOCTOR?**

Depending on your needs, your PCP or general cardiologist may refer you to another type of cardiologist who has specialized training in heart rhythm disorders and the electrical system of the heart that sends it signals to beat. These heart rhythm doctors are called electrophysiologists, or EPs for short.

Electrophysiologists are important members of your care team. They have expert knowledge in managing AFib and performing procedures. They will work with your general cardiologist or primary care physician to provide the best AFib treatment options for you.

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**A Typical Path to Practice Electrophysiology (EP)***

- **MEDICAL SCHOOL**
  - Leading to Doctor of Medicine (MD) or Doctor of Osteopathic Medicine (DO) degree

- **INTERNAL MEDICINE RESIDENCY**
  - Leading to board certification in internal medicine

- **CARDIOVASCULAR DISEASE FELLOWSHIP**
  - Leading to board certification in cardiovascular disease

- **ELECTROPHYSIOLOGY FELLOWSHIP**
  - Leading to board certification in electrophysiology

Visit HRSonline.org to learn more.

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Preparing for a doctor’s visit can be overwhelming, and you may not know what to ask. Visit UpBeat.Org to use the **Atrial Fibrillation Question Builder tool**, which allows you to select or create questions for your AFib care team. The question list can be printed to take with you, or saved as a PDF to reference on your device.
Here are five health tips that work.

**KEEP YOURSELF AT A HEALTHY WEIGHT AND KEEP MOVING!**

It’s important to keep a healthy diet and to exercise. At least 30 minutes a day of exercise, like a brisk walk, can make a big difference to your heart. [Talk to your doctor about your diet and how you can set goals to get to the right weight and to keep active.](#)

**AVOID SMOKING AND DRINKING ALCOHOL**

Medium and heavy drinking can worsen your AFib symptoms. There are lots of reasons to stop smoking, and lowering your chance of stroke is one of them. [Talk to your doctor to help you make plans to stop smoking and to drink less alcohol.](#)

**MANAGE YOUR DIABETES**

You may be living with diabetes, and you may be taking your medications or watching your blood sugar levels. Keep it up! Controlling your blood sugar may be important for your AFib. [Talk to your doctor if you have any trouble getting or taking your diabetes medications.](#)

**CONTROL YOUR BLOOD PRESSURE AND CHOLESTEROL**

You may have been diagnosed with high blood pressure and/or high cholesterol, and you may be taking medications for those problems. Keep taking them! [Talk to your doctor if you have any trouble getting or taking your blood pressure or cholesterol medications.](#)

**ASK ABOUT YOUR BREATHING DURING SLEEP**

There are problems or illnesses that change how you breathe during your sleep. These illnesses can worsen your AFib symptoms. Even if you think you don’t have any breathing problems during sleep, ask your doctor about getting tested for problems like stopping breathing during sleep (sleep apnea).
HOW CAN AFIB CAUSE A STROKE?

The heart has four parts and a signal system that tells each part when to squeeze (contract) and when to relax. When you have AFib, your signals are disorganized, and make two of the heart parts shake instead of fully squeezing. **Blood can pool in those parts of the heart and form a clot.** A clot is clumped blood that becomes solid.

Clots can break off from their original place and move through your bloodstream. The path of blood from the heart goes to the brain where the clot can get stuck in a blood vessel and block it off. **A blocked blood vessel in the brain can cause a stroke.**

PEOPLE WITH AFIB ARE

5x more likely to have a stroke than those without AFib, and the strokes are worse.

WHAT ARE THE PLUSES AND MINUSES OF TAKING BLOOD THINNERS?

A few blood thinner medications that you can take as a pill are available for patients with AFib. **The plus is that taking blood thinners in the way your doctor prescribed can significantly lower your chance of stroke due to blood clots.**

The minus of taking blood thinners is that they may also keep the good clots from forming. This can make you more likely to bruise or bleed too much. Your doctor will also explain how to tell whether your bleeding (like a nosebleed) is a normal side effect. Your doctor may check your blood to keep track of how the blood thinners are working and might ask you to change some of your activities that can lead to injuries.

Each type of blood thinner, sometimes called anticoagulants, has its own pluses and minuses. Talk to your doctor about your worries. To make the choice that is right for you, ask your doctor to help you compare the problems a stroke can cause to problems from a bleed from a blood thinner.

WHAT IS A BLOOD THINNER?

Blood thinners are medications that keep blood clots from forming or getting bigger. It is especially important that people who have a higher chance of AFib take blood thinners. Your doctor may prescribe blood thinners for you to prevent blood clots from forming in your vessels and lower your chance of getting a stroke.

You may not need a blood thinner medication right away, but as you get older and your health changes, you may need it in the future. It is important to continue talking to your doctor about the changes in your health every time you come for a visit.

1 out of every 4 strokes is due to AFib

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WHY IS IT IMPORTANT TO STICK TO MY TREATMENT PLAN?

Taking your blood thinner medication as your doctor tells you is the most important thing you can do to lower your chance of having a stroke.

It is important to “stick to” or “be faithful with” taking medications exactly as your doctor tells you. It is also important to follow your doctor’s advice and to keep follow-up visits. Patients who take their blood thinners in the way their doctor prescribed have a much smaller chance of dangerous bleeding.

Sticking to your treatment plan and taking your medications regularly can be hard for many reasons. Some of those reasons are:

- Trying to avoid side effects of the medication
- Forgetting to take the medication
- Paying for the medication

HOW CAN I STICK TO MY TREATMENT PLAN?

Avoiding side effects

- Make a plan ahead of time for what you should do if you think you have a side effect
- Always take your medication exactly as your doctor tells you
- Talk to your doctor or pharmacist openly and honestly about any problems or worries that you have. The health care team that takes care of you wants to make the best treatment plan for you — a plan that you can follow!

Patients who don’t take the right amount of blood thinner medications are more than six times as likely to have a stroke, and about four times as likely to have dangerous bleeding.
Nearly 9 out of 10 people with AFib who go to the emergency room because of a stroke are not taking a blood thinner or not taking it regularly.

Remembering to take your medication
- Use a pillbox
- Mark on a calendar or chart every time you take a pill
- Use the alarm clock feature on a cell phone as a reminder

Paying for the medication
Your doctor or pharmacist may be able to answer your questions about medication cost and what payment options may be available for you.

How to handle side effects
- **Bruising** is a common side effect of blood thinners. Call your doctor if (1) your bruises last more than two weeks; (2) you have signs of an infection such as more pain, swelling or fever; or (3) if your bruising is getting worse. Do not stop taking your blood thinner.

- **Nose bleeds** are more common and harder to stop when you are on blood thinners. Call 911 if: (1) bleeding does not stop in 30 minutes; (2) bleeding is extremely heavy; or (3) your heart is racing, you are dizzy or your blood pressure is high while you have the nose bleed. Even if you do not need emergency care, call your doctor to discuss the best way to manage your nose bleeds. Do not stop taking your blood thinner.

- **Bleeding** should not be ignored. Always contact your doctor immediately at the first sign of blood in your urine or stool or coughing up blood.

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WHAT IS RHYTHM CONTROL?

Rhythm control is a strategy (or pillar) for managing atrial fibrillation (AFib) that works by returning your heart to a normal rhythm and keeping it that way. Medications can be prescribed or administered by a provider on your care team. Procedures are generally done by a heart rhythm doctor, called an electrophysiologist (EP for short), at specialized facilities.

Three of the main treatments used in rhythm control are described below. These treatments can be done alone or in combination.

1. ANTIARRHYTHMIC MEDICATION
   Antiarrhythmic medications are drugs that can be used to return your heart to normal rhythm or be used on a daily basis to maintain normal rhythm. They can either be taken by mouth or given through an IV. These types of drugs may be prescribed for:
   - Patients with rare episodes of AFib, to be taken when their heart goes into AFib to get it back into normal rhythm
   - Patients with frequent episodes of AFib, to be taken every day to help maintain normal rhythm

   Talk to your care team about the type of antiarrhythmic medication that may be right for your type of AFib.

2. ELECTRICAL CARDIOVERSION PROCEDURE
   In an electrical cardioversion procedure, quick low-energy electrical shocks help reset your heart to a normal rhythm. This procedure is done in the hospital or emergency room, and has a few steps:
   - Patients are given a drug, called a sedative, to make them fall asleep
   - Electrical pads are placed on the patient’s chest
   - The patient’s blood pressure and oxygen are monitored
   - A carefully timed and monitored electric shock is delivered to restore normal rhythm

3. CATHETER ABLATION PROCEDURE
   A catheter ablation is a procedure that typically uses small amounts of cold or heat energy to block the electrical signals that cause irregular heartbeats. This procedure is usually done when antiarrhythmic drugs or cardioversion are not working but may be the first treatment for some patients. This procedure is usually done in the hospital by an EP, and has a few steps:
   - Patients are given anesthesia during the procedure
   - Thin, flexible tubes, called catheters, are inserted through the blood vessels to the heart
   - Cold or heat energy is used to create tiny scars on the heart which block the electrical signals that cause AFib
REDUCING YOUR SYMPTOMS AND IMPROVING YOUR QUALITY OF LIFE
Studies have shown that people with symptomatic AFib have a lower quality of life, due to the burden of their symptoms. People living with AFib are commonly referred for rhythm control to improve or decrease the symptoms. Treatment with rhythm control may decrease AFib symptoms and improve quality of life.

REDUCING THE NUMBER OF URGENT CARE OR EMERGENCY ROOM VISITS AND HOSPITALIZATIONS
AFib episodes and symptoms can develop quickly and without warning. People living with AFib commonly have unplanned and urgent outpatient or emergency room visits or hospitalizations. Treatment with rhythm control for people with symptomatic AFib may reduce unplanned urgent visits and hospitalizations.

REDUCING THE CHANCES OF YOUR DISEASE BECOMING MORE SEVERE
AFib can become more frequent or persistent over time, which is called AFib disease progression.

- When first diagnosed, most people have rare and short-lived episodes of AFib. This is called paroxysmal AFib, where the episodes last for less than 7 days.

- Over time, episodes and their symptoms can happen more often and last longer. This is called persistent AFib, where episodes last for more than 7 days.

- In some cases, a person remains in AFib all the time. This is called chronic or permanent AFib.

Treatment with rhythm control may slow AFib disease progression, decrease AFib burden, and decrease the symptoms related to longer AFib episodes.
REDUCING THE CHANCE OF HEART-RELATED STROKE OR DEATH

AFib has been associated with an increased risk of heart-related stroke and death. Treatment with rhythm control may decrease the risk for these events, potentially improving the overall health and survival of patients living with AFib.

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 CHA$_2$DS$_2$-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.

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</tr>
<tr>
<td>Hypertension (High Blood Pressure)</td>
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</tr>
<tr>
<td>Age &gt; 75 Years</td>
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</tr>
<tr>
<td>Diabetes Mellitus</td>
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</tr>
<tr>
<td>Prior Stroke or Mini Stroke (“Transient Ischemic Attack”)</td>
<td>2</td>
</tr>
<tr>
<td>Peripheral Vascular Disease or Coronary Artery Disease</td>
<td>1</td>
</tr>
<tr>
<td>Age 65–74 Years</td>
<td>1</td>
</tr>
<tr>
<td>Sex Category (i.e., Female Sex)</td>
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WHAT IS SLEEP APNEA?
Sleep apnea is a serious sleep problem that interrupts a person’s breathing during their sleep. People with sleep apnea stop breathing or have shallow breathing during their sleep. This means the body and the brain do not get enough oxygen.

WHAT ARE THE SYMPTOMS OF SLEEP APNEA?
A person with sleep apnea will wake up when their brain doesn’t get enough oxygen. This can happen hundreds of times each night. Some people may not even be aware that they are waking from sleep so often.

People living with sleep apnea may snore loudly and often wake from sleep gasping for air or have the feeling of choking. They may also feel a lot of daytime sleepiness or tiredness. Some people have trouble falling asleep and can become depressed.

Some people are more likely to get sleep apnea than others. You have a higher chance of getting sleep apnea if:
- You are male
- You are overweight
- You have a wide neck (greater than 16 inches around in women and 17 inches in men)
- You have high blood pressure
- You smoke
- You have diabetes
- You have a family history of sleep apnea

HOW IS SLEEP APNEA DIAGNOSED?
Sleep apnea is diagnosed by an overnight sleep test, which can be done at home or in a special sleep laboratory. The sleep test measures the number of times during your sleep you either stop breathing or your breathing becomes very shallow. It also measures the level of oxygen in your blood and keeps track of the brain and heart activity during sleep.

~100 million people
AROUND THE WORLD ARE LIVING WITH SLEEP APNEA.
WHAT IS THE CONNECTION BETWEEN SLEEP APNEA AND AFIB?

Each time a person with sleep apnea is startled awake by lack of oxygen during their sleep, the heart is stressed. This may lead to AFib. *About half of patients with AFib also have sleep apnea*. Preventing sleep apnea makes AFib treatments (medicine and surgeries) more effective.

Untreated sleep apnea can lead to problems like high blood pressure and diabetes, which in turn can lead to AFib. Long-term untreated sleep apnea can also cause problems with thinking and higher chance of accidents and stroke.

*Talk to your doctor about sleep apnea to find out if you may need to be tested. Start by telling your doctor about any snoring or daytime sleepiness that you may have. Treating sleep apnea can improve your quality of life and lower your chance of a heart attack or stroke.*
**WHAT IS ATRIAL FIBRILLATION?**

- Atrial Fibrillation or AFib is an abnormal heart rhythm, which is **irregular** and may be **fast**.
- Symptoms can include chest pounding, fluttering, shortness of breath, dizziness, or feeling faint. Some people have no symptoms at all.
- It can occur in 9% of people over the age of 65.
- Your risk of AFib increases with age, obesity, high blood pressure, excess alcohol, and untreated sleep apnea.
- AFib increases your risk of **stroke** by 5 times.
- Some people go in and out of AFib. This is called Paroxysmal AFib.
- Others stay in AFib for long periods of time. This is called Persistent AFib.
- The risk of stroke remains elevated, regardless of your type of AFib, and depends on your other health conditions (diabetes, high blood pressure, age, heart or vascular disease, and prior stroke).
- A blood thinner may be prescribed to reduce your stroke risk.

**DIAGNOSIS OF AFIB**

- Best diagnosed by a health care provider.
- AFib is confirmed by an EKG or outpatient heart monitor worn for a period of time.
- Smart phones, watches, or similar devices can help your health care provider differentiate possible heart rhythm abnormalities and guide further evaluation and treatment.

**Smart Devices and AFib**

- **Pulse Oximeter**
- **Automatic BP Cuff**
- **Smart Watches**
- **Mobile ECG monitor**
- **Smart Phones and Smart Phone Apps**
- **Smart Devices**

There are several smart (electronic) devices on the market today that can help indicate the presence of AFib or other abnormal heartbeats.
COMMON QUESTIONS ABOUT ATRIAL FIBRILLATION (AFIB) AND SMART DEVICES

HOW OFTEN SHOULD I CHECK MY HEART WITH A SMART DEVICE?
• While most people do not need to check their heart rate regularly, those with, or at risk for, AFib, may benefit from frequent checks.
• Smart devices are commonly used to track activity but may also be used to check heart rate and rhythm.
• Smart devices are not a substitute for medical devices, but may be useful to track and store clinical data to share with your clinician.

HOW DO I KNOW IF MY HEART RATE AND RHYTHM ARE NORMAL?
• Many smart devices detect and record heart rate and rhythm and may spot changes over time.
• Your heart rate can go up for many reasons such as a fever or exercise.
• Abrupt changes in heart rate, or an irregular heartbeat, may trigger an alert on a smart device and signify an abnormal heart rhythm.
• Contact a clinician if you notice changes that concern you, or are having symptoms such as chest pounding, fluttering, shortness of breath, dizziness, or feeling faint.

WHAT DO I DO WITH THE INFORMATION?
• Most smart devices come with a mobile app that collects and tracks information.
• A significant change over time, or repeating events, may be a cause for concern.
• This information may help your clinicians understand what’s going on and decide on next steps.

WHEN DO I CALL A HEALTH CARE PROVIDER?
• If you’re not feeling well or have a rapid heart rate, dizziness, chest pounding, fluttering, or flopping in your heart.
• If you get a notification, such as “possible atrial fibrillation,” from your device, or something is not normal with your heart rate, rhythm, or blood pressure.
• Do not start, stop, or make any changes to your medication without speaking to a health care provider.

More detailed information about smart devices and your health can be found in Guidance for Wearable Health Solutions (Published by the Consumer Technology Association in partnership with the Heart Rhythm Society, Jan. 2020) available at research@CTA.tech.

ADDITIONAL AFIB RESOURCES:
Heart Rhythm Society: Guide to Atrial Fibrillation Information for Patients
Preventive Cardiovascular Nurses Association: What is Atrial Fibrillation?
StopAfib.org: Information and Support for Patients by Patients
Cardiosmart: Atrial Fibrillation Overview
American Heart Association: What is Afib?
Arrhythmia Alliance: Awareness, Support, Information and Education

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