

A PATIENT RESOURCE GUIDE

# Know What **AFib** Feels Like



...DRUMS  
**POUNDING**  
IN MY CHEST.

...THUNDER  
**RUMBLING**  
IN MY CHEST.

...FISH  
**FLOPPING**  
IN MY CHEST.

Preventing and Treating  
Atrial Fibrillation



Heart  
Rhythm  
Society<sup>SM</sup>



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# How to Use This Workbook

This resource guide provides resources to physicians, hospitals, and patients to increase awareness of who is at risk for atrial fibrillation (AFib or AF), what symptoms to look for, and what can be done to prevent AFib. This resource provides engaging and easy-to-understand educational tools to help patients manage atrial fibrillation.

Use the worksheets in each chapter to remember and record important information about your health and lifestyle. There are links to additional resources to offer more support for you and your family on the back cover.

## Guiding Your Way

Throughout this *Patient Resource Guide*, use these interactive features to add to your learning experience:



**Open PDF.** Download or print pages that help you manage your health. To use this tool, install the free Adobe Acrobat Reader (<http://get.adobe.com/reader/>).



**Audio.** Listen to the audio version of the pages you are viewing. To use this, make sure you have the most recent free copy of Adobe Flash Player (<http://get.adobe.com/flashplayer/>).



**Play.** Play videos and animations by pressing the play button.



**Highlighted Text.** Click on any highlighted text (in red) and you will see a definition of that word.



**Learning Checks.** Check what you have learned throughout this *Guide*.



**Help.** Click the help button on the Menu Bar to get help using this *Guide*.



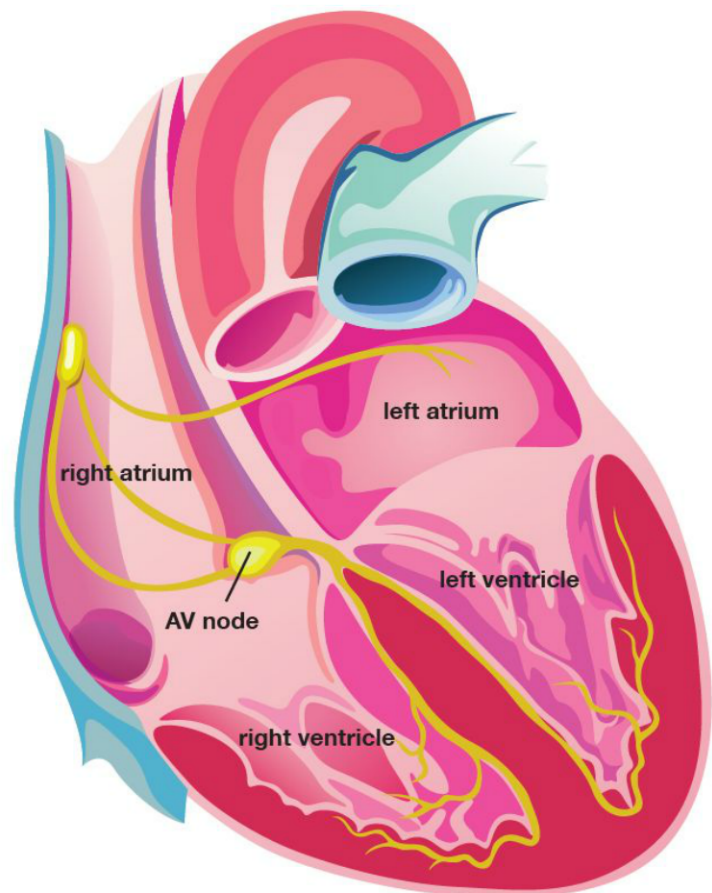
# What Is Atrial Fibrillation? (AFib or AF)

Normally, the four chambers of your heart beat in a steady, rhythmic pattern. **Atrial fibrillation (AFib)** occurs when the **atria** (the upper chambers of the heart) are fibrillating, or “quivering.” This results in a rapid, irregular heart rhythm—an **arrhythmia**.

Atrial fibrillation is the most common type of arrhythmia due to a malfunction of the heart’s electrical system. There are more than 2.5 million adults in the United States who have AFib, with 160,000 new cases diagnosed every year. Eight out of every 100 people over the age of 65 are diagnosed with AFib. Although it usually occurs in adults older than 60, younger adults can develop AFib, too.

People who have AFib may not feel symptoms. However, even when AFib isn’t noticed, it can increase the risk of **stroke**. In some people, AFib can cause chest pain or **heart failure**, especially if the heart rhythm is very rapid. For the first time, it might be scary and cause fear and anxiety. It is important to see your doctor to be diagnosed and treated promptly.

AFib may happen rarely or every now and then, or it may become an ongoing or long-term progressive heart problem that lasts for years and can become much more serious.

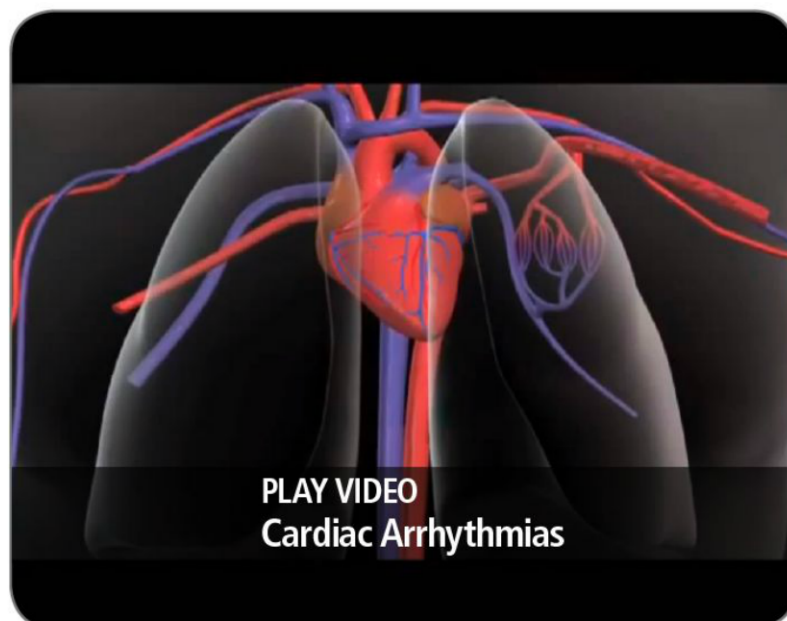


## Three Types of AFib

**Paroxysmal** – AFib that comes and goes on its own. The AFib may last for seconds, minutes, hours, or days before the heart returns to its normal rhythm. 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** – When the AFib does not stop by itself. Medications or a special type of electrical shock (called a **cardioversion**) is used to help the heart return to normal rhythm. If no treatment is given, the heart will stay out of rhythm.

**Permanent** – When the AFib cannot be fixed. Medications and controlled electrical shock cannot help return the heart to normal rhythm.



## Risk Factors for AFib

Some people who are living healthy lives and have no other medical problems do develop AFib. In most cases, though, we do know the cause. The most common causes and risk factors include:

- Older than 60 years of age
- Diabetes
- Heart problems:
  - **Hypertension**
  - Congestive heart failure
  - Coronary artery disease
  - Structural heart disease (valve problems or congenital defects)
  - Prior heart attacks
  - Prior open-heart surgery
  - Untreated atrial flutter (another type of abnormal heart rhythm)
- Thyroid disease
- Chronic lung disease
- **Sleep apnea**
- Excessive alcohol, caffeine, or other stimulant use
- Serious illness or infection



**CHA<sub>2</sub>DS<sub>2</sub>-VASc** – A stroke risk classification scheme, known as

CHA<sub>2</sub>DS<sub>2</sub>-VASc allows health care professionals to quickly assess, interpret, and explain to patients with nonvalvular atrial fibrillation their stroke risk and recommended therapy.

The CHA<sub>2</sub>DS<sub>2</sub>-VASc risk index is based on a point system:

<b>C</b> ongestive heart failure	=	1
<b>H</b> ypertension	=	1
<b>A</b> ge equal to or greater than 75 years	=	2
<b>D</b> iabetes mellitus	=	1
<b>S</b> troke or Transient Ischemic Attack history	=	2
<b>V</b> ascular disease history	=	1
<b>A</b> ge between 65 and 74 years	=	1
<b>Sc</b> Sex category (female)	=	1

Your doctor will add the appropriate points to obtain a total CHA<sub>2</sub>DS<sub>2</sub>-VASc risk score. For more information, visit

**[resources.hrsonline.org/  
chads2-vasc-calculator.html](https://resources.hrsonline.org/chads2-vasc-calculator.html)**

**Learning Check!** Click the button to take a short quiz on what you've learned in Chapter 1.

# Signs and Symptoms of AFib

The symptoms of AFib are different for each person. Many people feel no symptoms at all. They do not even know they have AFib or that there is a problem, while others can tell as soon as it begins. This is because the symptoms depend on age, the cause of the AFib (heart problems, other diseases, etc.), and on how much AFib affects the pumping of the heart.

The symptoms of AFib include:

- Feeling over-tired or a lack of energy (most common)
- Pulse that is faster than normal or changing between fast and slow
- Shortness of breath
- Heart palpitations that feel like:
  - **Drums pounding**
  - **Thunder rumbling**
  - **Fish flopping**
- Trouble with everyday exercises or activities
- Pain, pressure, tightness, or chest discomfort
- Dizziness, lightheadedness, or fainting
- Increased urination (using the bathroom more often)



## Complications from AFib

AFib is usually not life threatening. However, when the atria are “fibrillating,” the flow of blood to the **ventricles** is slowed, which increases the risk of developing a blood clot. If the clot is pumped out of the heart, it could travel to the brain and lead to a stroke. This is the cause of about 15 out of every 100 strokes. The risk of stroke from AFib increases with age and is closely linked to the presence of other risk factors, such as heart disease, high blood pressure, and an enlarged heart.

## Diagnosing AFib

Atrial fibrillation is diagnosed based on your medical and family histories, a physical exam, and the results from tests and procedures. Sometimes AFib doesn’t cause signs or symptoms. Thus, it may be found during a physical exam or **ECG (electrocardiogram)** test done for another purpose.

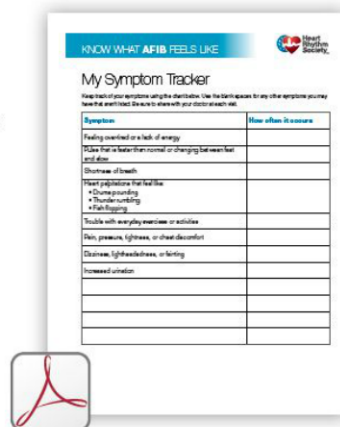
If you have AFib, your doctor will want to find out what is causing it. This will help him or her plan the best way to treat the condition.

## Specialists Involved

Primary care doctors often are involved in the diagnosis and treatment of AFib. These doctors include family practitioners and internists.

Doctors who specialize in the diagnosis and treatment of heart disease also may be involved, such as:

- **Cardiologists** – These are doctors who diagnose and treat heart diseases and conditions.
- **Heart Rhythm Doctors** – These are cardiologists who specialize in arrhythmias.



**My Symptom Tracker**  
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## Tests

There are several tests that can be done to check for a fast or irregular heartbeat. Your doctor may order these tests if you are having signs or symptoms of a heart problem. The symptoms include heart palpitations (feeling like your heart is racing, pounding, rumbling, flopping, or fluttering), shortness of breath, or dizziness.

### **Electrocardiogram (ECG) –**

An ECG is a snapshot of your heart's electrical activity. Stickers (electrodes) are attached to your chest, arms, and legs. These electrodes measure the rate and rhythm of your heart. An ECG is commonly used to diagnose AFib.



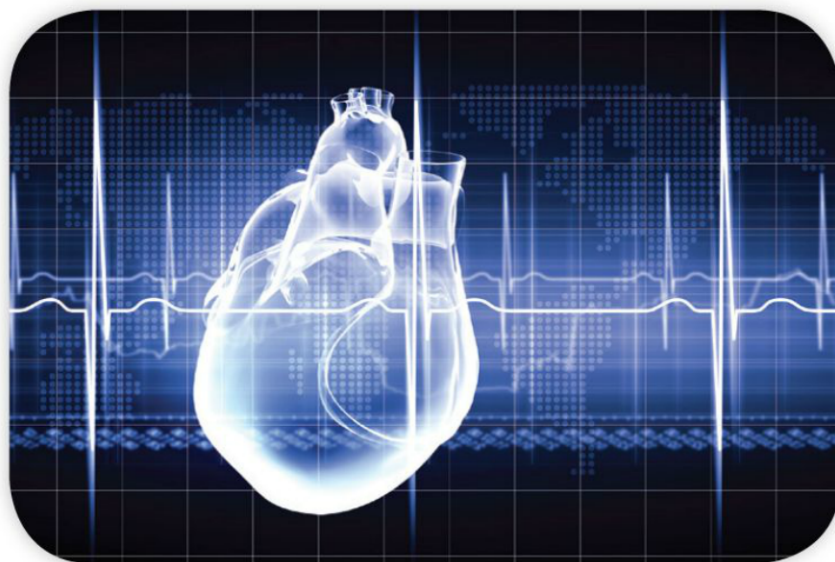
**Holter monitor –** A Holter monitor is a portable ECG. It is typically worn for 24 hours, but can be worn for several days. Stickers (electrodes) are placed on your chest and are then connected to a small recording machine that is usually worn around the waist. It digitally records the electrical activity of your heart for your doctor to review later.



**Mobile cardiac monitoring** – A mobile cardiac monitor is worn for up to 30 days. It monitors your heartbeat when it is normal and will trigger a recording when it senses an abnormal rhythm. The results are automatically sent to your physician. Your physician uses this information to evaluate your symptoms and determine what is causing the arrhythmia. This type of monitor is helpful to diagnose AFib in asymptomatic patients.

**Event monitor** – An event monitor is a portable ECG that is used for patients who have an irregular heart rhythm every once in a while. You will carry the monitor with you at all times and attach it to your chest when you feel symptoms. This lets your doctor check your heart rhythm at the time of your symptoms.

**Echocardiogram** – An echocardiogram uses sound waves to produce images of your heart. This test allows your doctor to see how your heart muscle is moving and pumping blood. You may have one of several types of echocardiograms.



There are several more diagnostic procedures that your doctor or cardiologist may use to refine his or her understanding of your AFib.

**Learning Check!** Click the button to take a short quiz on what you've learned in Chapter 2.

# Treating AFib

## Treatment Goals

The goals of treating AFib include:

- **Blood Clots** – Preventing blood clots from forming, thus lowering the risk of stroke.
- **Rate Control** – Controlling how many times a minute the ventricles contract. This is called rate control. Rate control is important because it allows the ventricles enough time to completely fill with blood. With this approach, the abnormal heart rhythm continues, but you feel better and have fewer symptoms.
- **Rhythm Control** – Restoring a normal heart rhythm. This is called rhythm control. Rhythm control allows the atria and ventricles to work together to efficiently pump blood to the body.
- **Underlying Disorders** – Treating any underlying disorder that's causing or raising the risk of AFib—for example, hyperthyroidism (too much thyroid hormone).

## Medicines

If you have atrial fibrillation, you may need to take one or more medicines for the rest of your life, such as:

- **Rhythm control medications (anti-arrhythmic drugs)** – medications that help keep a normal heart rhythm
- **Rate control medications** – medications that slow down a fast heart rate and prevent weakening of the heart muscle
- **Blood thinners (anticoagulants)** – medications that help prevent blood clots and reduce the risk of stroke



Everyone reacts differently to medication. You may need to try more than one medicine before you find what works best for you and has the fewest side effects.

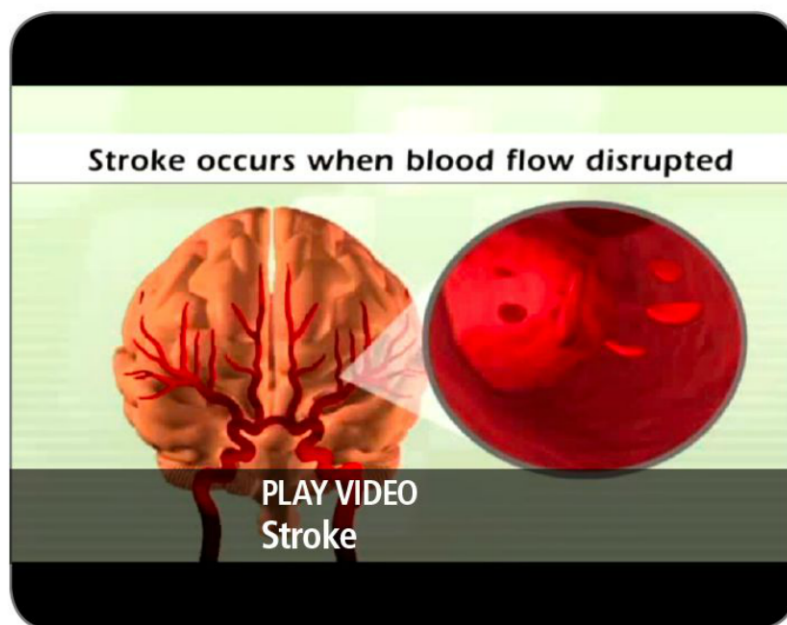
## Stroke Prevention

People with AFib have a stroke risk five times higher than those who do not have AFib. AFib causes approximately 120,000 ischemic strokes each year. Ischemic stroke happens when a blood clot breaks free, lodges in a blood vessel, and blocks the flow of blood and oxygen to the brain.

One out of every four strokes is due to AFib. Because of the adverse effects a stroke can have on quality and duration of life, stroke prevention is a primary treatment goal in AFib. There are a variety of treatments to prevent ischemic stroke, but a medication called an anticoagulant is the most common "first-line" treatment. Anticoagulants are highly effective at lowering the likelihood of ischemic stroke.

What is an anticoagulant? Anticoagulants, which are sometimes called blood thinners, interrupt the blood's normal clotting (coagulation) process. This complex system, which is called the coagulation cascade, involves many cell proteins that work together to stop bleeding.

Remember to take all medications as prescribed by your healthcare professional. Always talk to your doctor before stopping a medication.



## Procedures

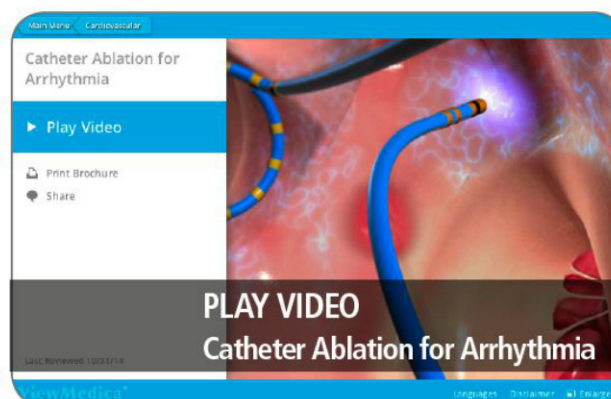
Doctors use several procedures to restore a normal heart rhythm. For example, they may use **electrical cardioversion** to treat a fast or irregular heartbeat. For this procedure, low-energy shocks are given to your heart to trigger a normal rhythm. You're temporarily put to sleep before you receive the shocks.



Electrical cardioversion isn't the same as the emergency heart shocking procedure often seen on TV programs. It's planned in advance and done under carefully controlled conditions.

Before doing electrical cardioversion, your doctor may recommend **transesophageal echocardiography** (TEE). This test can rule out the presence of blood clots in the upper chambers of the heart. If clots are present, you may need to take blood-thinning medicines before the procedure. These medicines can help get rid of the clots.

**Catheter ablation** may be used to restore a normal heart rhythm if medicine or electrical cardioversion doesn't work. For this procedure, a wire is inserted through a vein in the leg or arm and threaded to the heart.



Radio wave energy is sent through the wire to destroy abnormal tissue that may be disrupting the normal flow of electrical signals. A heart rhythm doctor usually does this procedure in a hospital. Your doctor may recommend a TEE before catheter ablation to check for blood clots in the atria.

Sometimes doctors use catheter ablation to destroy the **atrioventricular (AV) node**, to make the heart rhythm regular and control the heart rate. The AV node is where the heart's electrical signals pass from the atria to the ventricles (the heart's lower chambers). This procedure requires your doctor to surgically implant a device called a pacemaker, which helps maintain a normal heart rhythm.

For patients with AFib who do not respond well to the procedures mentioned above, doctors may recommend surgery as an option. There are a number of surgical approaches, including some minimally invasive (endoscopic) surgical techniques. Your doctor will explain the options based on your overall medical condition.

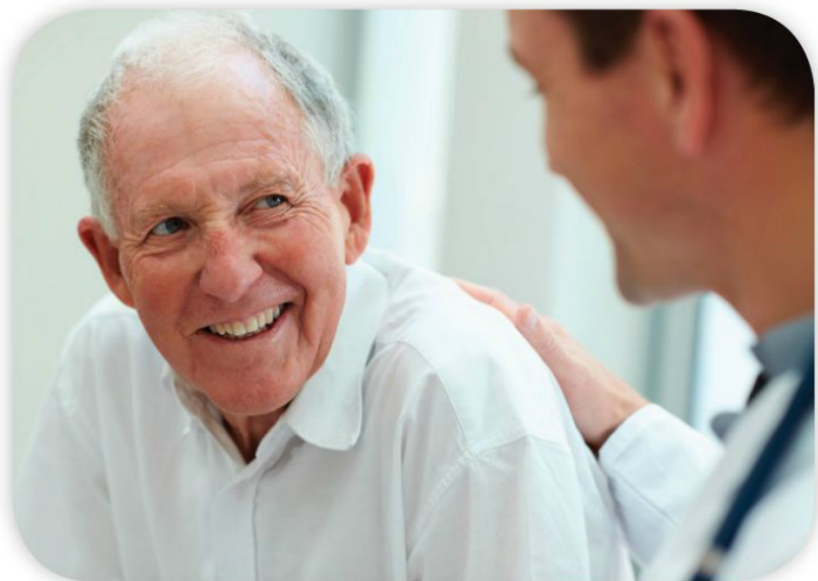
## Questions to Ask Your Healthcare Provider

If you have been diagnosed with atrial fibrillation, or suspect that you may have the condition, here are some questions that you may want to ask your physician:

- What is the cause of my AFib?
- How can I be sure I have AFib and not another heart rhythm problem?
- Will my condition go away on its own?
- What are the risks that it will become worse (more symptomatic)?
- Am I at increased risk of having a stroke?
- What are my treatment options?
- What are the risks and side effects of medications to control my condition, or to reduce the risk of stroke?
- What are the risks and benefits of other treatment options?
- Should I see an electrophysiologist (a specialist in heart rhythm disorders)?



**Questions to Ask Your Healthcare Provider**  
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# Living Well with Atrial Fibrillation

People who have atrial fibrillation—even permanent AFib—can live normal, active lives. If you have AFib, ongoing medical care is important.

- Keep all your medical appointments. Bring a list of all the medicines you're taking to every doctor and emergency room visit. This will help your doctor know exactly what medicines you're taking.
- Follow your doctor's instructions for taking medicines. Be careful about taking over-the-counter medicines, nutritional supplements, and cold and allergy medicines. Some of these products contain stimulants that can trigger rapid heart rhythms. Also, some over-the-counter medicines can have harmful interactions with heart rhythm medicines.
- Tell your doctor if your medicines are causing side effects, if your symptoms are getting worse, or if you have new symptoms.
- If you're taking blood-thinning medicines, you'll need to be carefully monitored. For example, you may need routine blood tests to check how the medicines are working. Also, talk with your doctor about your diet. Some foods, such as leafy green vegetables, may interfere with warfarin, a blood-thinning medicine.
- Ask your doctor about physical activity, weight control, and alcohol use. Find out what steps you can take to manage your condition.
- It is especially important that you talk to your physician before stopping any blood-thinning, or anticoagulant, medicines.



**Learning Check!** Click the button to take a short quiz on what you've learned in Chapter 4.

# Resources

## **Heart Rhythm Society**

resources.hrsonline.org

## **National Heart, Lung, and Blood Institute**

www.nhlbi.nih.gov/health/  
health-topics/topics/arr/

## **MedlinePlus**

www.nlm.nih.gov/medlineplus/  
atrialfibrillation.html

## **Clinicaltrials.gov**

Enter "atrial fibrillation" in  
the Search box.

## **StopAfib.org**



## **And now, please tell us what you think about this workbook!**

We need your suggestions to make sure that this has everything you need to know to manage your health in the best way possible. Go to our online survey:

**[https://www.surveymonkey.com/s/HRS\\_AFib](https://www.surveymonkey.com/s/HRS_AFib)**

and answer just a few questions. It will only take a few minutes.

**Thank you for your help!**