

## **FACTS ABOUT ATRIAL FIBRILLATION**

### **What is atrial fibrillation?**

Atrial fibrillation is the most common form of irregular heartbeat. Irregular heartbeats are caused by abnormal electrical activity of the heart. In atrial fibrillation, the upper chambers of the heart (atria) beat irregularly and rapidly. The erratic electrical signals may also cause the lower chambers of the heart (ventricles) to beat irregularly and rapidly. This can affect blood flow to the heart muscle and to the rest of the body.

### **What causes atrial fibrillation?**

Atrial fibrillation may be caused by an underlying heart disease, such as:

- Problems with the heart valves
- Impaired blood flow to heart muscle (ischemia)
- Weakened heart muscle (cardiomyopathy)
- Damage to the heart from long-standing, untreated high blood pressure (hypertensive heart disease)

Atrial fibrillation may be caused by other medical conditions, such as thyroid problems, infection, or lung diseases. It is also associated with heavy alcohol use, sometimes called “holiday heart.” It may also occur in people with otherwise normal hearts, sometimes called “lone atrial fibrillation.”

### **How will I know if I have atrial fibrillation?**

Many people with atrial fibrillation do not notice that their heart is beating irregularly and may not have symptoms. Others may have symptoms such as weakness, shortness of breath, and heart palpitations or more serious problems such as fainting (syncope), stroke, heart attack, or heart failure.

### **How will a doctor diagnose atrial fibrillation?**

An electrocardiogram, or EKG, is the best and simplest way to determine whether you have atrial fibrillation. An electrocardiogram is a tracing of the electrical activity of your heart. It is usually done along with a history and physical exam, lab tests, and a chest X-ray.

### **What can I expect if I have atrial fibrillation?**

The course of atrial fibrillation depends on:

- The underlying cause
- Your heart rate
- How long you've had atrial fibrillation
- Your age
- Other medical conditions you may have
- Other symptoms or complications that have developed

Atrial fibrillation that is caused by an underlying condition, such as hyperthyroidism, usually goes away when the underlying condition is treated.

The course and treatment of atrial fibrillation that is caused by other heart disease can be more complicated. Heart disease may interfere with how effectively the left ventricle pumps and fills. When atrial fibrillation is also present, the already-damaged left ventricle not only is unable to pump well, but the rapid heartbeat leaves no time for it to refill properly. This combination further decreases blood flow through the heart and can cause serious complications, such as syncope or heart failure.

Episodes of atrial fibrillation that last only a short period of time and that come and go unpredictably are called paroxysmal atrial fibrillation. Paroxysmal episodes may last anywhere from a few seconds to a few weeks and may not cause symptoms.

Ongoing atrial fibrillation is also known as chronic atrial fibrillation. Underlying heart disease can cause repeated episodes for a period of time before progressing to chronic atrial fibrillation.

Sometimes a normal sinus rhythm will return on its own without treatment with medications or an electrical shock (cardioversion). Anticoagulant medications may be needed to prevent blood clots and lessen the risk of stroke if normal sinus rhythm does not return. Other medications can control the heart rate. Heart failure may develop if the heart rate cannot be controlled.

Lone atrial fibrillation generally does not cause additional problems in young people. Treatment may be needed if a rapid heartbeat causes discomfort or decreased energy. Adults over age 75 with lone atrial fibrillation are still at risk for stroke and require treatment with anticoagulant medications.

### **What are the complications of atrial fibrillation?**

Atrial fibrillation often causes shortness of breath, dizziness, confusion, or lightheadedness, especially during physical activity. For this reason people with atrial fibrillation have a decreased ability to exercise.

Stroke is the major complication caused by atrial fibrillation. When blood does not completely empty out of the rapidly beating atria, a clot can develop in the blood that pools in the atria. The clot may travel from the heart to the brain, causing a stroke.

People with atrial fibrillation and no damage to the heart valves are six times more likely to have a stroke than people without atrial fibrillation. The risk of stroke is higher if valve damage is present. This risk of stroke also increases with age.

Lowering the risk of stroke is the main goal of treatment.

### **How is atrial fibrillation treated?**

In some people, the irregular heartbeat returns to normal on its own. About 50% of people with recent-onset atrial fibrillation return to normal sinus rhythm without treatment with medication or electric shock (cardioversion) within twenty four to forty eight hours. Other people require treatment with medication or cardioversion to correct the irregular heartbeat.

If the heart does not return to a normal sinus rhythm, other medications or surgery can be used to control the rhythm of the lower heart chambers so that they don't beat too fast. Catheter based ablation to permanently destroy the heart muscle causing atrial fibrillation is sometimes used. Medications called anticoagulants, such as Warfarin (Coumadin®) may be needed to prevent blood clots, which can lead to stroke.

