

# Atrial Fibrillation (Afib) What it means to you

Afib Symptoms, Risks, and Treatment Options



#### **Atrial Fibrillation (Afib)**

#### What is Afib?

Afib is an irregular heartbeat, a rapid heartbeat, or a quivering of the upper chambers of the heart. Afib results from a malfunction in the heart's electrical system. Afib slows down the flow of blood throughout the body and can lead to acute heart problems. Blood that remains in the atria can pool and create blood clots, which can cause a stroke.



#### **Afib Symptoms**



# Your physician will diagnose you with one of the following types of Afib:

#### Paroxysmal Atrial Fibrillation (PAF)

In paroxysmal (par-ok-SIZ-mal) Afib, the faulty electrical signals and rapid heart rate begin suddenly and then stop on their own. Symptoms can be mild or severe. They stop within about a week, but usually in less than 24 hours.

#### Non-Paroxysmal Atrial Fibrillation (nPAF)

#### Persistent Atrial Fibrillation

Persistent Afib is a condition in which the abnormal heart rhythm continues for more than a week. It may stop on its own, or it may be stopped with pharmaceutical drugs or ablation procedures.

#### **Long-standing Persistent Atrial Fibrillation**

Long-standing persistent Afib is a condition in which a normal heart rhythm cannot be restored without intervention such as an ablation procedure. Both paroxysmal and persistent Afib may become more frequent and will result in permanent Afib over time.



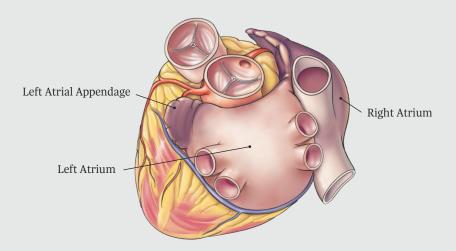
#### **Afib Treatment Options**

- Medication
- Cardioversion
- Radiofrequency Catheter Ablation
- Cryoballoon Catheter Ablation
- Surgical Ablation Procedure
  - Radiofrequency Ablation
  - Cryoablation

# **ACT** against Afib

# Committed to Non-paroxysmal Surgical Afib (nPAF) Treatment and Solutions

AtriCure, the company behind the ACT campaign, is your partner in nPAF solutions. Our research and rigorous clinical trials have led to innovations in ablation technology to treat nPAF.





#### **Surgical Maze Procedure**

A surgical ablation energy source is used to create a conduction block of scar tissue to stop or isolate the errant electrical signals.



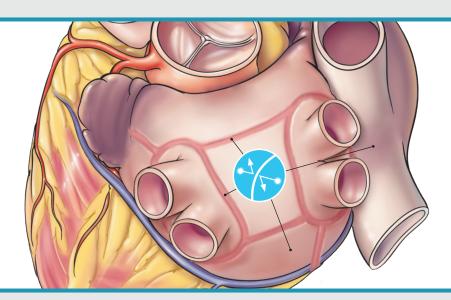
#### Left Atrial Appendage Management

As part of the Maze procedure, the Left Atrial Appendage (LAA) is managed surgically by devices or sutures to close the opening of the LAA.



## **Surgical Maze Procedure**

The surgical procedure is performed to treat nPAF. During this procedure a number of lesions are made in the upper chambers of the heart based on what your surgeon feels is the best course of action to treat your nPAF. These lesions form scar tissue, which does not conduct electricity, and disrupts the path of the abnormal electrical impulses.



#### **Ablative Technologies**

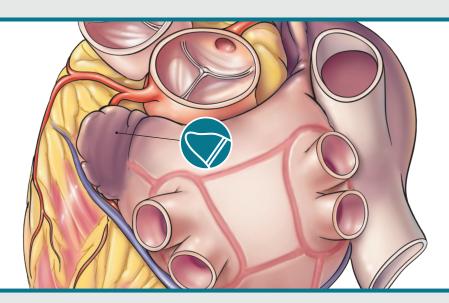
Radiofrequency (RF) and Cryoablation Systems are routinely used as part of the Maze procedure. RF energy flows through devices, heating the heart tissue, and creating a scar.

The scars are made in a specific pattern in the upper chambers of the heart and will block the abnormal electrical conduction. Similarly, cryoablation systems use very cold temperature to freeze the tissue, which also results in an isolating scar pattern to block the abnormal electrical conduction.



### **Left Atrial Appendage Management**

The left atrial appendage (LAA) is a small pouch within the left atrium. A normal heart contracts with each beat sending blood through the left atrium and LAA. When a heart is in nPAF, the irregular beat causes the blood to potentially clot in the LAA, which can increase your risk of stroke.



As part of the Maze procedure, the LAA is managed surgically by devices or sutures to close the opening of the LAA. This prevents blood from entering the LAA, which is the source for over 95% of detected blood clots (thrombi) in patients with Afib.  $^{\rm C}$ 

Clinical Data

#### **Ablate AF Trial**

# Clinical trial to evaluate the safety and efficacy of the Isolator<sup>®</sup> Synergy<sup>™</sup> Ablation System

**Trial Outcomes** (n=57 at 6 months)<sup>D</sup>



#### INCLUSION CRITERIA FOR ABLATE / ABLATE AF TRIAL

History of permanent Afib in which cardioversion (electrical and/or pharmacologic) has failed or has not been attempted (as defined by the 2006 ACC/AHA/ESC Guidelines)

≥ 18 years of age

Scheduled to undergo elective cardiac surgical procedure(s) to be performed on cardiopulmonary bypass

Left ventricular ejection fraction ≥ 30%

#### References:

A. Alonso A, Bengtson LG. A rising tide: the global epidemic of atrial fibrillation. Circulation. 2014; 129:829-830.

B. Holmes DR, Atrial Fibrillation and Stroke Management: Present and Future, Seminars in Neurology 2010; 30:528–536.

C. Fuster, MD, PhD, FACC, FAHA, FESC, Co-Chair, I. (2006). Acc/aha/esc 2006 guidelines for the management of patients with atrial fibrillation. Journal of the American College of Cardiology, 8(4), e149-e246. doi: 10.1016/j. iacc. 2006.07.018.

D. The ABLATE Trial: Safety and Efficacy of Cox Maze-IV Using a Bipolar Radiofrequency Ablation System Jonathan M. Philpott, MD, Christian W. Zemlin, PhD, James L. Cox, MD, Mack Stirling, MD, Michael Mack, MD, Robert L. Hooker, MD, Allen Morris, MD, David A. Heimansohn, MD, James Longoria, MD, Divyakant B. Gandhi, MD, and Patrick M. McCarthy, MD, Department of Surgery, Eastern Virginia Medical School, Mid-Atlantic Thoracic Surgeons, Sentara Heart Hospital, and Department of Electrical and Computer Engineering and Center for Bioelectrics, Old Dominion University, Norfolk, Virginia; Washington University, School of Medicine, Barnes-Jewish Hospital, St Louis, Missouri; Munson Medical Center, Traverse City, Michigan; Baylor Heart Hospital, Plano, Texas; Spectrum Health, Butterworth Hospital, Grand Rapids, Michigan; Mercy Heart Institute, Sacramento, California; Heart Center of Indiana, Indianapolis, Indiana; Sutter Heart Institute, Sacramento, California; McLaren Greater Lansing, Lansing, Michigan; and Northwestern University, Chicago, Illinois.

US Indications: The AtriCure Synergy Ablation System is intended to ablate cardiac tissue for the treatment of persistent atrial fibrillation (sustained beyond seven days, or lasting less than seven days but necessitating pharmacologic or electrical cardioversion) or longstanding persistent atrial fibrillation (continuous atrial fibrillation of greater than one year duration) in patients who are undergoing open concomitant coronary artery bypass grafting and/or valve replacement or repair.

Please review the Instructions for Use for a complete listing of contraindication, warnings, precautions and potential adverse events prior to using these devices.

Rx Only.

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