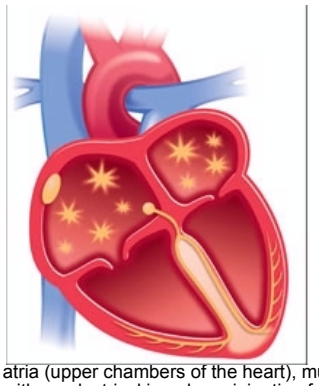
Matters of the Heart

INTERVENTIONAL ATRIAL FIBRILLATION PROGRAM



In atrial fibrillation, instead of a single electrical impulse pacing the atria (upper chambers of the heart), multiple "starbursts" of random electrical impulses occur preventing normal contractions of the atria. A normal contraction should begin with an electrical impulse originating from the SA node and traveling directly to the AV node. Most people have experienced a racing heart from time-to-time. Nervousness, exercise or too much caffeine can send pulses soaring. In most cases, it is harmless. But clinically diagnosed atrial fibrillation, if not controlled, is one of the leading causes of stroke.

Atrial fibrillation is the rapid, irregular heartbeat caused by abnormal electrical impulses that cause the right or left upper chambers of the heart, or atria, to quiver. As a result, blood can pool in the atria and form clots that can travel to the brain and cause a stroke, increasing the risk of stroke fivefold. It is one of the most common heart conditions, affecting three to five percent of the population over 65.

Anti-arrhythmic and other types of medications can be used to successfully treat atrial fibrillation for many patients, but for those patients who do not respond to or cannot tolerate the side effects of the medications, there are a number of other options.

Responding to community need, Board Certified Electrophysiologists Leon Feldman, MD and Andrew Rubin, MD and Board Certified Cardiothoracic Surgeons, S. N. Mitruka, MD and Joseph Wilson, MD lead Eisenhower's Interventional Atrial Fibrillation Program. The comprehensive program employs state-of-the-art technology and allows these heart specialists the flexibility to customize treatment for each patient with a greater than 70 to 80 percent likelihood of curing atrial fibrillation.

Eisenhower is one of only seven centers in the country to offer a comprehensive approach to treating atrial fibrillation:

Catheter Ablation —A small catheter (thin wire) with an electrode at the tip is inserted through an artery in the groin and directed into the atria of the heart. The catheter uses radiofrequency energy to "ablate," or scar, tissue creating patterns of scar lesions around the pulmonary vein. The four-hour procedure requires only an overnight stay for most patients. Previously available only at large university hospitals, Dr. Feldman and Dr. Rubin were the first in the Coachella Valley to perform the procedure at Eisenhower in November 2006.

Minimally Invasive Thoracoscopic Maze — Performed through three tiny incisions on the right side of the chest, the procedure uses an advanced microwave catheter to ablate tissue around the pulmonary veins on the outside of the beating heart. The subsequent formation of scar tissue provides a barrier to "short circuit" atrial fibrillation. The procedure is performed in 90 minutes, and most patients can return home the following day. In October 2006, Dr.Mitruka and Dr. Wilson became only the third group of surgeons in the country to perform the minimally invasive thoracoscopic Maze. Currently, Eisenhower Medical Center is one of only 10 centers in the country to offer this procedure.

Open Maze — The open Maze procedure is an option for patients with atrial fibrillation who require open-heart surgery for other reasons, such as replacing a heart valve or for a bypass (see Feature, "Coronary Artery Bypass Graft Surgery "). During open-heart surgery, an irrigated radiofrequency catheter is used to ablate tissue inside the atria and around the pulmonary veins. As in other procedures, the resulting scar tissue prevents atrial fibrillation from occurring. The open Maze adds approximately 30 minutes to the length of the surgery. Dr. Mitruka and Dr. Wilson were among the first surgeons in the country to perform the open Maze, irrigated radiofrequency ablation procedure and have treated more than 200 patients. Eisenhower Medical Center is the only teaching site for this procedure on the West Coast and frequently hosts international teaching symposiums about this procedure.

To learn more about Eisenhower Medical Center's Interventional Atrial Fibrillation Program, call 760-834-3501.

Healthy Living is a publication of Eisenhower Medical Center · © Copyright 2015 All Rights Reserved · www.emc.org