



Heart Monitor

A newsletter promoting cardiovascular health from the
Missouri Heart Institute Foundation

Winter 2008

What You Need to Know About Atrial Fib

Atrial fibrillation, or atrial fib as it is known in the medical world, is an irregular heart rhythm that can make you feel “quivery” or like your heart is “flip-flopping” inside your chest. Your heart is beating in an erratic, rapid manner and may make you feel short of breath, weak and lightheaded. Besides making you feel weird, it can have some potentially serious consequences if not recognized and treated.

What is it?

Your heart has four compartments or “chambers” - two on the top and two on the bottom. The top two called “atria” has one atrium on the left side and one on the right. These two atria work together to send timing signals and pump blood to the lower two chambers, the left and right ventricles, which then pump blood out to the body and lungs, respectively. Normally the timing signals - your heart’s very own “pacemaker” - works in a very regular manner, beating 60-90 times a minute. If atrial fib occurs, the upper chambers will beat 300-600 times a minute. If you could look inside your heart, you would see the two atria wiggling in a chaotic pattern - as one person described it - “like a sack full of fishing worms”. Only a few of these electrical impulses actually reach the ventricles as they all must travel through the connection between the atria and ventricles called the Atrial-Ventricular node or A-V node for short. In this way, the node acts as a safety valve to prevent the ventricles from beating too fast.



ECG tracing of a normal heart rhythm.

In atrial fibrillation, the tracing shows tiny, irregular “fibrillation” waves between heartbeats. The rhythm is irregular and erratic.



How do you get it?

Nearly 3 million people in the United States have atrial fib. This year there will be over 200,000 new cases. If you are over 40, you have a one-in-four lifetime risk of developing atrial fib. There can be multiple contributing factors. Hypertension and mitral valve dysfunction may put pressure on the atria causing them to increase in size. This in turn may disrupt the nerve fibers in the atrial walls and lead to fibrillation. Heavy or binge drinking, the so-called “holiday heart”, can trigger an episode. Emotional stress may play a role as well. Several years ago, a patient of mine went into A-Fib just as he was given a subpoena by the county sheriff. A-Fib is common after open heart surgery and one of the earlier symptoms of hyperthyroidism. Extreme fatigue, illegal drug use, lung disease, low blood sugar, and excessive use of coffee and cigarettes have all been factors triggering attacks. Recently, sleep apnea has been reported to cause A-Fib in some people. As your heart ages, the prevalence of A-Fib increases, roughly doubling each decade. People in their sixties have a 2-3 percent incidence, and those in their eighties as high as 8-10 percent. Men get it more commonly than women. Athletes, especially tall basketball players, have a higher incidence as well. In many cases, there is no discernible cause for developing an episode. Half of all attacks are not permanent - known as “paroxysmal” A-Fib - and can at times alternate with slow heart beats. This fast/slow pattern is called “sick sinus syndrome” and may require a pacemaker implant. (continued on page 2)

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Is it dangerous?

Most of the time A-Fib makes you feel different or “weird”, but by itself isn’t life threatening. However, it does carry a risk of stroke in some patients if not treated. When the atria are beating in a chaotic manner they are not pumping blood efficiently. Blood clots can form as blood pools in a little side pocket of the left atrium called the left atrial appendage. These blood clots can occasionally dislodge and get pumped out to the body. If they go to the brain, it causes a stroke. The American Heart Association states that untreated A-Fib increases stroke risk five to six times, and accounts for 15 percent of all strokes. The strokes may be minor, but recurrent and not recognized clinically. These may cause attention deficit, forgetfulness and even dementia. A-Fib also contributes to heart failure and reduces the amount of blood pumped by the ventricles by about 20 percent. If atrial fib goes untreated long enough, your heart can undergo a “remodeling” process that causes permanent scarring in the atrial walls, making it less likely your normal rhythm will return.

What can be done about it?

When A-Fib occurs it is very important to see your doctor so you can be placed on a “blood thinner”. Most cardiologists agree that warfarin (Coumadin) is the most effective for long term use. Heparin can also be used for short periods but cannot be taken by mouth. Aspirin combined with either Plavix or Ticlid has been tried, but is not as effective as warfarin. Once you are adequately anti-coagulated or “thinned”

your doctor may chose from any number of medications designed to slow your rapid heart down. Beta-blockers and digitalis work well as does diltiazem (Cardizem). Amiodarone is very effective in restoring your normal rhythm, but has several side effects. Newer medications include sotalol and propafenone. Often the most direct means of getting your normal rhythm restored is to “shock” it using electrical cardioversion. You are first sedated, then, when you are asleep a direct current charge is placed through your chest using large electrodes. This electrical current neutralizes all heart rhythm momentarily and allows your normal pacemaker to regain control. Although it sounds dreadful, it is not that uncomfortable. There is a new medication in the final phases of testing that shows great promise in treating A-Fib, but has yet to be released. A technique call “Pulmonary Vein Ablation” is very effective in curing the problem. This procedure uses a soft flexible tube called a catheter to precisely eliminate the areas inside the pulmonary veins near left atrium that are causing the erratic rhythm. By using radio frequency, laser or ultrasound energy, these areas are electrically neutralized so the A-Fib can’t return.

What to do first?

Remember, all proper diagnosis and treatment starts by visiting your doctor. Your feelings of “flip-flops” in your chest may be something very minor requiring only reassurance. The best approach is always to find out...you only have one *you*.

–Gerald V. Cupp, MD, retired cardiologist

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Butterscotch Brownies

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| Vegetable oil spray | 1/2 teaspoon imitation butter flavoring |
| 1 cup firmly packed dark brown sugar | 1/2 teaspoon vanilla extract |
| 2 tablespoons acceptable margarine | 3/4 cup sifted all purpose flour |
| Egg substitute equivalent to 1 egg, or 1 egg | 1 teaspoon baking powder |
| 2 tablespoons unsweetened applesauce | |

Preheat oven to 350°F. Spray an 8-inch square baking pan with vegetable oil spray. In a large mixing bowl, cream brown sugar and margarine with electric hand mixer on medium-high. Add egg substitute, applesauce, butter flavoring, and vanilla. Beat on medium until smooth. In a small bowl, sift together flour and baking powder. Stir into brown sugar mixture. Spread evenly in baking pan. Bake for 20-25 minutes. Let cool slightly and cut into 16 bars.

Nutrients per serving:

- Calories 85
- Protein 1 g
- Carbohydrates 18 g
- Dietary Fiber 0 g
- Total Fat 2 g
- Saturated Fat 0 g
- Polyunsaturated Fat 0 g
- Monounsaturated Fat 0 g
- Cholesterol 0 mg
- Sodium 60 mg

*Clip-N-Save
Heart Healthy Recipes*

This recipe is brought to you by
*The New American Heart Association Cookbook,
25th Anniversary Edition*

Heart of Mid-Missouri Golf Classic May 26

The 14th Annual Heart of Mid-Missouri Golf Classic is scheduled for Monday, June 9, 2008 at The Club at Old Hawthorne. Proceeds from the tournament will go to provide scholarships to area high school seniors seeking a career in a medical, nursing or health-care related field.

The success of this tournament over the past 14 years has enabled the Missouri Heart Institute Foundation to continue expanding the number of scholarships it offers. This scholarship is now being offered to 26 schools in the mid-Missouri area.

If you would like to put together a team, be a sponsor, receive more information about the event, or be placed on our mailing list, please contact Melisa Caldwell, Missouri Heart Institute Foundation, 573-256-3079. The fee is \$700 for a 4-person team. Deadline for team entry is May 26.

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www.moheartcenter.com

We welcome your comments
& suggestions

Melisa L. Caldwell, Editor
Allen L. Goree, Executive Director



Early Detection May Save Your Life

I thought it was my age, I thought it was stress. I thought it was my long hours, but you won't find a woman in this city that doesn't feel like that.

Pam Lessley, 57, learned that she was at risk for heart disease at a health screening. After being diagnosed with heart disease, Pam underwent lifesaving quadruple bypass surgery.

Heart Fair

A CELEBRATION OF THE HEART

To recognize February as Heart Month, Boone Hospital invites you to its annual Heart Fair

February 21, 2008
6 a.m. to 6 p.m.
Cost: FREE

Boone Hospital Center
Bridge over Broadway
1600 E. Broadway
Columbia, MO 65201

Free cholesterol, diabetes & blood pressure screenings, plus cardiovascular health information, massages & exercise tips

Call 573-815-6400 or 800-872-9008 to register (required for cholesterol screen). Space is limited.



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The Missouri Heart Institute Foundation has worked for many years to raise funds in order to help provide mid-Missouri with the advancement of clinical services, research, professional training and public health care education. At this time, we would like to recognize the individuals and businesses that have supported our fight against heart disease. The following is a list of those who made contributions to the Foundation in 2007.

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Thanks to all of you for your continued support!

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