HeartHelp
Keeping You In Rhythm

The Beat

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SPECIAL POINTS OF INTEREST:

- Leaky Valves
- Dehydration
- Oven Fried Catfish
- EKG History

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A Leaky Valve...what does that mean?

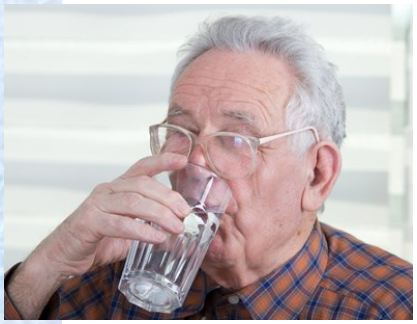
So you may have been told by your cardiologist that you have a leaky valve. This is usually seen on a test called an echocardiogram (an ultrasound of the heart). You may have wondered, what does that really mean? Is my heart bleeding? Am I leaking blood? To best explain this phenomenon, let's start with basic anatomy. The heart has four chambers. In order for the blood to flow from one chamber to another, it has four valves that open and close to allow for this blood flow. The tricuspid valve allows blood to flow from the right atrium to the right ventricle. The pulmonic valve allows blood flow from the right ventricle into the pulmonary artery. The mitral valve allows blood flow from the left atrium to the left ventricle. The aortic valve allows blood from the left ventricle to the rest of your body. When these valves are closed they are supposed to be closed. Meaning blood flow should not be coming thru that valve. Just like when you turn the knob on your faucet off you expect the water to stop coming out. When one of the heart valves leak (the medical term for this is regurgitation) the blood is leaking usually back into the chamber it just came from. The heart is doing double the work that it should. Over time, this can cause some problems.

What causes valves to leak? The common causes can differ for the different valves. For this article the focus will be on the mitral valve and aortic valve. Leaking of the mitral valve is primarily caused by the valve prolapsing, heart disease, endocarditis (infection of the heart), rheumatic fever, and calcification of the valve. Less frequent causes include lupus, trauma, congenital abnormalities, sarcoidosis and others. Leaking of the aortic valve can happen for many of the same reasons, such as rheumatic fever and endocarditis. (5,6).

Tip of the Month

How to Avoid Dehydration:

1. Keep colas, caffeinated beverages (coffee, tea etc.), and alcohol at a minimum. They tend to cause dehydration.
2. Drink 16-20 ounces of water prior to going outside. Drink 6-12 ounces of water for each 10-15 minutes you are outdoors.
3. For low intensity outdoor activity like walking, water is usually enough to keep you hydrated.
4. Consider a sports drink like Gatorade or Powerade if you are going to be out in the sun or really warm weather for more than a few hours or if the activity is more strenuous.
5. Don't wait until you are thirsty. (3).



Oven Fried Catfish

Recipe from the book ***Breaking the Salt Habit*** by Erik Williams.

Ingredients:

2 Tbsp. Flour

2 tsp. Paprika (divided)

1 1\2 tsp. Garlic Powder (divided)

1\4 tsp. Black Pepper

1\8 tsp. Cayenne Pepper

2\3 cup Yellow Corn Meal

2 Egg Whites

4-4 oz. Catfish Fillets

Non-Stick Cooking Spray

Directions:

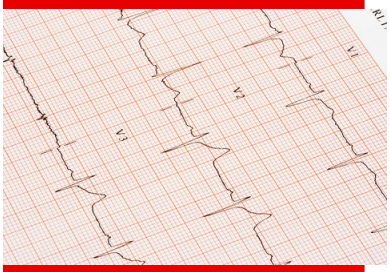
1. In a shallow dish combine flour, 1 tsp. paprika, and 1\2 tsp. garlic powder. Set aside.
2. In another shallow dish combine 1 tsp. paprika, 1 tsp. garlic powder, black pepper, cayenne pepper, and cornmeal.
3. Place egg whites in another shallow dish.
4. Spray baking sheet with cooking spray.
5. Dip (1 piece at a time) catfish into flour mixture; then in egg whites; and finally in cornmeal mixture. Place on baking sheet.
6. After catfish fillets are on baking sheet, spray lightly with cooking spray.
7. Cook 6-7 minutes. Flip and spray catfish again and cook 6-7 more minutes or until fish flakes.

Health Information

Serving size 4 oz. catfish
Servings 4
Calories 285
Total fat 10g
Saturated fat 2g
Cholesterol 73mg
Sodium 119 mg
Total fiber 3 g
Protein 26 g
Carbohydrates 24 g
Potassium 434 mg

Quote of the Month: "Only I can change my life. No one can do it for me ." Carol Burnett

Did you Know?



Did you know how an EKG or an electrocardiogram came about? The concept of electricity started back in the 1600's and the concept of muscular contraction began later in the 1700's. In 1820, Johann Schweigger of Nuremberg invented a galvanometer which was able to detect small electrical current. In 1838, Carlo Matteucci showed that an electrical current comes with each heart beat. In 1887, the first human electrocardiogram or EKG was published by Augustus Waller. The term electrocardiogram was first introduced by Willem Einthoven at a meeting for the Dutch Medical Association in 1893. Einthoven later invented a new galvanometer with fine quartz string coated with silver. It was used to produce EKG's and it weighed a whopping 600 pounds! (1). (2).

Einthoven later transmitted the EKG's from the hospital to his laboratory using telephone cables. In 1906 he went on to publish the first presentation of normal and abnormal electrocardiograms. In 1924 he won the Nobel prize, rightfully so. A few years later, a company run by Frank Sanborn converted the 600 pound EKG machine to a portable EKG machine that weighed only 50 pounds. His company was acquired by Hewlett Packard in 1966 and in 1999 became Philips Medical Systems. Philips systems are used by many offices and hospitals today. The efforts of these scientists over the last few centuries have allowed us to diagnose a heart attack or an abnormal heart rhythm within minutes. Millions of lives have been changed because of an EKG. (1).

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However, disease of the aortic root or aortic dissection and high blood pressure can also cause the valve to leak. Symptoms of the valve leaking are similar for both and may include shortness of breath with exertion or when lying down, fatigue, palpitations, and chest pain. If the valve has been leaking for a long time and is chronic, no symptoms may be present. Leaky valves are usually detected on an exam. An abnormal heart sound or a murmur may be heard with a stethoscope. If this is a new finding or something that has changed, an echocardiogram is usually ordered. The echocardiogram can tell how bad the valve is leaking and if it is causing the heart muscle to weaken or become enlarged. Depending on the severity of the valve, a TEE or transesophageal echocardiogram may be done. This is an echocardiogram from the inside. A probe is passed gently down the food pipe or esophagus to get a better look at the valve. If the valve needs to be fixed, a cardiac catheterization is done to see if there is blockages in the arteries that need to be fixed. Then, a consultation with a cardiovascular surgeon is made. Historically, open heart surgery had to be done to fix a leaky valve. This is still the case in many individuals, especially if a bypass needs to be done. Technology is improving though and more minimally invasive surgeries are being completed. (5,6).