

Arrhythmias of the Heart

Background:

- ♥ Arrhythmias of the Heart are also known as Abnormal Heart Rhythms.
- ♥ Arrhythmias are also known as Dysrhythmias, which is an irregular heartbeat.
- ♥ The definition is a change in the normal pattern of the heartbeat.
- ♥ The pumping of the heart is controlled by electrical impulses from the sinus node that maintain a regular heartbeat of 60-100 beats per minute. If this electrical conduction system is disrupted, the heart may beat too quickly, too slowly, or in an irregular fashion.
- ♥ Slower than normal heart rates are called Bradyarrhythmias, which are less than 60 beats per minute.
- ♥ Faster than normal heart rates are called Tachyarrhythmias, which are more than 100 beats per minute.
- ♥ In the United States more than 850,000 people are hospitalized for an Arrhythmia each year.
- ♥ Causes for Arrhythmia include factors such as having coronary artery disease, an electrolyte imbalances in your blood, changes in your heart muscle, an injury from a heart attack, the healing process after heart surgery and in some cases Arrhythmias will occur in 'normal' and healthy hearts.
- ♥ There are over 10 different forms of Arrhythmias.

- ♥ Some forms of Arrhythmias cause no symptoms and may only be detected by a doctor.
- ♥ Arrhythmias can be diagnosed during a physical exam by taking an individual's pulse, a stress test or through an electrocardiogram (ECG), which is a test that records the electrical activity of your heart
- ♥ Symptoms for Arrhythmias can include palpitations, pounding in your chest, dizziness or feeling light-headed, fainting, shortness of breath, chest discomfort or weakness and fatigue.
- ♥ Treatment for Arrhythmias depends on the type and seriousness and some individuals may require no treatment at all.
- ♥ Treatments include medication, lifestyle changes and undergoing surgical procedures.

Statement of the Problem:

- ♥ After extensive research through the Internet and readings in my sister's medical diaries I have noticed that Arrhythmias of the Heart and all the different forms of it are much more common than I had thought. Some people may notice symptoms, which include palpitations, feelings of dizziness and light-headedness, fainting, shortness of breath, chest discomfort, weakness and fatigue. Many people have a mild form, which usually is Atrial Fibrillation and may not even notice any of these symptoms so they may only be detectable by doctors who will perform a physical exam, stress test or an ECG. The mild forms

may require no treatment but need to be watched throughout the individual's lifetime so that their disease does not worsen without notice. As for the other not so lucky individuals who have a more severe form, they have to resort to taking medication or in very severe forms they may need to rely on a surgical procedure. The goals of all medical personal and professionals is to come up with ways and cures that can limit the symptoms of all the forms of Arrhythmias and prevent and lower the increasing rate of strokes and deaths caused by this disease.

Epidemiologic Picture:

- ♥ The mortality rate from individuals diagnosed with Arrhythmias of the Heart has increased in the past 2 decades. The death rate (per 100,000 US population) increased from 27.6 in 1980 to 69.8 in 1998.
- ♥ Atrial Fibrillation is the most common type of Arrhythmia; an estimated 2.2 million adults in the United States have been diagnosed.
- ♥ Men have a higher frequency of being diagnosed with any form of Arrhythmia over women.
- ♥ Whites have a higher frequency of being diagnosed with any form of Arrhythmia over African Americans.
- ♥ Atrial Fibrillation accounts for $\frac{1}{4}$ of all strokes in the elderly; approximately over 70,000 strokes per year.

Solutions:

American Heart Association (<http://www.americanheart.org/presenter.jhtml?identifier=10845>)

- ♥ The goal of the American Heart Association is to educate individuals who have or believe they may have an irregular heartbeat. They provide ways to detect if you do in fact have the disease, what may cause it and how you can go about preventing it or getting treatment. The site also includes statistics that are helpful for individuals looking at the overall picture of the problem whether they personally have the disease or if they are a medical professional in the field.

Web MD (<http://www.webmd.com/heart-disease/guide/heart-disease-abnormal-heart-rhythm>)

- ♥ This site includes similar things that the American Heart Association does; how to tell if you have the disease and what to do about it. But on this specific site an individual can type in the symptoms that they seem to be having and the site will generate disease that connect with the symptoms or you can enter in a disease (like I did) and the site will provide you with different sections of information from ways of diagnoses to living with and managing the disease, as well as other resources online to help an individual to the fullest.

Cardiology Associates (http://www.cardioassoc.com/patient_pgs/conditions/arrhythmias.asp)

- ♥ This site is more of a frequently asked questions Web site; it gives the basic facts of Arrhythmias for a person who is looking to be educated on the disease. It explains the different procedures that may need to be taken to help a person

with this disease get better as well as describing the different medications the individual may be prescribed. There is also a section that made this site stand out from the others; there is a section where you can get in contact with an actual cardiologist. Where individuals can ask questions directly and receive reliable answers without having to pay for an appointment.

Internet Resources:

- ♥ http://www.cdc.gov/DHDSP/library/fs_atrial_fibrillation.htm
- ♥ <http://your-doctor.com/healthinfocenter/medical-conditions/cardiovascular/cardiac-conditions/arrhythmias/arrythmia-intro.html>
- ♥ http://www.emedicinehealth.com/heart_rhythm_disorders/article_em.htm

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Arrhythmias of the Heart Fact Sheet

- ♥ What is the definition of Arrhythmias of the Heart?
 - Also known as Abnormal Heart Rhythms; the definition is a change in the normal pattern of the heartbeat.
- ♥ What is the average heart beats per minute?
 - 60-100 beats per minute
- ♥ What is it called when your heartbeat is faster than normal?
 - When your heart beats more than 100 beats per minute it is known as Tachyarrhythmias.
- ♥ What is it called when your heartbeat is slower than normal?
 - When your heart beats less than 60 beats per minute it is known as Bradyarrhythmias.
- ♥ What are common causes for Arrhythmia?
 - Having coronary artery disease, an electrolyte imbalance in your food, changes in your heart muscle, an injury from a heart attack or during the healing process after heart surgery.
- ♥ How many people are hospitalized for Arrhythmia per year?
 - Approximately 850,000
- ♥ What are symptoms of Arrhythmia?

- Palpitations, pounding in your chest, dizziness, feeling light-headed, fainting, shortness of breath, chest discomfort, weakness or fatigue.

♥ What is the most common form of Arrhythmia?

- Atrial Fibrillation is the most common type of Arrhythmia.

♥ How are Arrhythmias diagnosed?

- During a physical exam, stress test or by using an electrocardiogram, which is a test, that records the electrical activity of your heart.

♥ What type of treatment is there for Arrhythmias?

- Some forms may require no treatment at all but others may require medication, lifestyle changes or in severe cases undergoing a surgical procedure.

If interested this Web site animates the normal rhythm of the heart:

http://www.webmd.com/content/tools/1/anatomy_heart_rhythm.htm