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Resident Characteristics & Assessments
Heart Basics

Understanding Heart Disease

Heart Disease affects more than 20 million Americans, and is one of the leading causes of death in this country. But what exactly does the term heart disease mean? When most people talk about heart disease, they usually mean coronary artery disease, the illness which causes both angina and heart attacks. However, there are also other conditions that can affect our cardiovascular system, such as congestive heart failure and aneurysms. To better understand each of these diseases, it helps to review how the heart works. Basically the heart is a pump. Its purpose is to circulate blood to all of the organs of the body. The heart is made up of four chambers, two ventricles that pump blood out of the heart, and two atria, which hold the blood returning to the heart. The heart receives its entire supply of blood through the three coronary arteries. Coronary artery disease occurs when there is a buildup of fatty plaque known as atherosclerosis inside the coronary arteries. When the buildup is sufficient to restrict, but not stop, blood flow into the heart, the result is angina, a discomfort or pain in the chest. Angina isn't actually a disease, but rather is a symptom of coronary artery disease. When the buildup of atherosclerosis is sufficient to interrupt blood flow to the heart, the result is the death of heart muscle cells, commonly known as a heart attack. So, both angina and heart attacks are really caused by the buildup here, in the coronary arteries. Congestive Heart Failure (CHF), on the other hand occurs when the heart is pumping inefficiently and can no longer meet the body's need for blood. The ventricles, which are the main pumps within the heart, often are to blame for the insufficient blood flow. The ‘congestive’ part of CHF comes from the backup of blood in the veins leading into the heart. This backup causes the kidney to retain fluids. Other, less common diseases affect other parts of the heart. For example, when a patient is suffering from an aneurysm that means that their aorta has swollen creating a bulge in the artery. Understanding heart disease is an important first step towards prevention. Remember, heart disease is both complex and serious, and you should always consult a physician if you are concerned about your heart health.

Understanding a Heart Attack

When someone has a heart attack, they need to receive medical attention as soon as possible. How can you tell if you are experiencing is a heart attack? And how should you respond? It can sometimes be hard to differentiate between the symptoms of a heart attack and more common occurrences like chest pain or severe heartburn. Fortunately, there are some simple ways to help to tell the difference. While all three conditions are characterized by intense pain in and around the chest, there are several distinctive symptoms associated with a heart attack. Often, people suffering from a heart attack describe the pain they feel as radiating outward and leading to intense pain in the back, throat, or jaw. There can also be pain running down the left arm. Many heart attack sufferers also feel weakness and a distinct shortness of breath because the heart is no longer effectively circulating blood. Nausea, vomiting, a feeling of dizziness, and profuse sweating are also common symptoms of heart attack. All of these symptoms can be better understood in the context of what happens during a heart attack. The heart itself is a muscle, and its job is to circulate blood throughout the body. Oxygen-rich blood comes into the heart through three passages, known as the coronary arteries. Heart attacks occur when the fatty deposits or plaque rupture and cause a clot to form in the artery blocking the flow of the blood into the heart. Without this oxygen-rich blood, the heart muscle begins to die, which is the source of the pain during a heart attack. Given this, it is not surprising that one other common symptom of heart attack is a rapid or an irregular heartbeat. The right response to a heart attack is simple. First, call 911 immediately, and ask for emergency help. Second, while you are waiting for the ambulance to arrive, take one regular strength aspirin tablet. This will prevent blood clotting that can worsen a heart attack. Being able to quickly recognize a heart attack will help you to respond fast, and the sooner you get proper treatment, the better your chances are of avoiding permanent damage to

the heart. Remember, heart disease is both complex and serious, and you should always consult a physician if you have concerns.

Understanding Angina

Over 6 Million Americans suffer from angina. But what exactly is angina? Angina is chest pain or discomfort that occurs when the heart muscle is not getting enough oxygen. Angina is not the same thing as a heart attack, although its symptoms can sometimes appear similar. Angina occurs when the coronary arteries, the primary source of blood for the heart, become partially blocked by a buildup of fatty deposits called plaque. This build up reduces the flow of blood to the heart, decreasing the supply of oxygen and causing the pain we experience as angina. There are three different types of angina. Stable angina is the most common type. With stable angina pain only occurs when the heart is exerting itself more than normal and usually subsides when at rest. Unstable angina is a serious condition that requires emergency treatment, and sometimes signals an impending heart attack. Unstable angina is different from stable angina in that it can occur more frequently, can feel more severe, and can occur or continue while at rest. Prinzmetals angina is an unusual kind of angina that occurs only when the patient is at rest, is exposed to cold temperatures, or is sleeping. Diagnosing angina requires a physical exam, a comprehensive medical history, and possibly a series of diagnostic tests. It is complex condition that can only be diagnosed by your doctor. While it may be possible for a physician to determine if you have angina just from the physical exam and history, tests will often need to be ordered to confirm the diagnosis. These tests may include an EKG, which measures the regularity of your heartbeat, stress tests to see how your heart responds to exercise, and diagnostic blood tests. For patients suffering from angina, there are several effective treatment options available. The first and simplest option is a lifestyle change. Your doctor can advise you on how to make dietary changes, lose weight, and change your physical activities to avoid angina episodes. Your doctor may also be able to prescribe medications that can help with your angina. For example, nitrates can be used both to relieve pain during the onset of an episode and to actually prevent an episode. When other methods do not work, angioplasty or surgery may be necessary to treat angina. It is important to understand that not all chest pain or discomfort is angina. Chest pain can be caused by any number of factors including heart attack, lung problems, heartburn, or a panic attack. If you are experiencing chest pain, whether you believe it is angina or something different, please see a physician as soon as possible.

Understanding Congestive Heart Failure

Congestive heart failure affects over 5 million Americans, but it is still the most commonly misunderstood kind of heart disease. So what exactly is congestive heart failure? Congestive Heart Failure is a condition in which the heart's pumping power is weaker than normal, and cannot pump enough blood and oxygen throughout the body. When the heart is unable to pump blood as effectively as usual, the movement of blood through the body slows. At this point, blood begins to back up in the veins returning to the heart, which causes congestion in the chest tissue. It is from this feeling of congestion that congestive heart failure gets its name. The most common cause of congestive heart failure is coronary artery disease, the same condition responsible for angina and heart attack. Events which damage the heart, such as a heart attack or cardiomyopathy, which is what we call damage to the heart from causes like an infection, can also lead to congestive heart failure. As well, congestive heart failure often comes about when a patient has a condition that chronically overworks the heart, like high blood pressure or diabetes. One of the most common symptoms of congestive heart failure is water retention, which occurs because of the reduced blood flow to the kidneys. This water retention causes swelling, known as Edema, which occurs most commonly in the legs and ankles. Other typical symptoms of congestive heart failure include shortness of breath, congested lungs, fatigue, and an irregular or rapid heartbeat. Doctors who suspect that a patient has congestive heart failure can attempt to confirm that diagnosis with a variety of blood tests or an EKG, which measures and charts the electrical impulses traveling through the heart. Managing congestive heart failure begins with some lifestyle changes. Patients can improve their quality of life by adopting a healthy diet low in sodium and cholesterol and eating lots of fiber and potassium. A moderated approach to daily life,

with planned rest and the careful avoidance of overexertion is recommended. As well, several kinds of medication can be helpful, including beta-blockers to improve the heart's pumping action and diuretics to help remove salts and fluids from the body. Some patients may eventually require heart valve surgery or heart transplantation. Most people with mild to moderate congestive heart failure can lead normal and productive lives, especially if the disease is found in its earliest stages. If you suspect you may be suffering from congestive heart failure or have concerns about your heart health, please seek the advice of your physician or other qualified healthcare provider.

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