HEART FAILURE

Have you been getting progressively more short of breath such that you now feel quite short of breath with activities of daily living that you previously had no difficulty with? These activities could include walking around your own home, bathing, tidying or cleaning your house, or laundry, cooking and light gardening. Is the shortness of breath made worse by lying down flat on a bed or couch? In particular, do you awake suddenly from a nap with extreme shortness of breath that leaves you feeling like you are about to suffocate, and forces you to sit bolt upright in bed? If you have been experiencing all, or any combination, of these symptoms you might be developing heart failure. Heart failure patients also feel weak and tired all the time, fatigue with even the slightest bit of exercise, and may also experience leg swelling and weight gain that is due to the accumulation of fluid by the body, rather than increasing body fat.

Heart failure occurs when your heart ceases to function as an effective pump circulating blood around your body. High blood pressure, also known as hypertension, is the single most important risk factor for the development of heart failure, and it is especially common in people of African descent around the world. For example, in the United States of America forty one percent of black adults have hypertension. Not only are black people more likely to have hypertension than people of other ethnic groups, they also develop the disease at an earlier age, and tend to have more severe forms of the disease. The result is that complications from prolonged severe hypertension such as heart failure, strokes and kidney failure tend to occur disproportionately in black people. Other important risk factors for the development of heart failure include diabetes mellitus, smoking cigarettes, heavy alcohol intake, and illicit drugs (cocaine and methamphetamines). Not only can the heart be damaged by the drugs themselves, but addicts who inject the drugs into their veins risk infection of their heart valves which can result in heart failure. Occasionally heart failure is caused by inflammation of the heart muscle itself called myocarditis, which may be due to a bacterial or viral infection, or non-infectious injuries such as radiation or other toxins. It is important to emphasize that a major cause of heart failure, particularly in more affluent countries, is the development of a heart attack, which typically results in the death of a significant amount of heart muscle, and leaves the heart pumping less effectively. Therefore avoiding risk factors for a heart attack should ultimately lower the chances of developing heart failure. These risk factors include obesity, inactivity, and high blood cholesterol levels (related to unhealthy diets). Finally, heart failure may be caused by a variety of illnesses such as a hyperactive thyroid gland, vitamin B-1 (thiamin) deficiency, and disease of other body organs such as the lungs, kidneys and liver.

If you experience any of the symptoms outlined in the first paragraph of this article, and particularly if you have associated risk factors discussed in the second paragraph, it is imperative that you make an appointment to see a primary care physician for an initial evaluation of your symptoms. In addition to taking a thorough history of the onset and evolution of your symptoms, as well as reviewing your family history and risk factors, your doctor will also conduct a comprehensive physical examination aimed at identifying heart and lung abnormalities on the examination that suggest or confirm the existence of heart failure. This is usually followed by laboratory testing, a chest x-ray, and an electrocardiogram to further support the diagnosis and look for possible causes. Another frequently ordered test is an ultrasound of your heart known as an echocardiogram. If the evaluation confirms the suspicion of heart failure you may be started on medications and your primary care doctor may elect to continue to care for you himself, or alternatively he may refer you to a heart specialist (Cardiologist) for subsequent follow up care. If your symptoms are severe it may be appropriate for you to consult a cardiologist directly without first seeing your primary care doctor. If you are having active chest pain, or have had irregular heartbeats or passing out spells, you should go to an emergency room as soon as possible, or even activate the emergency response system by dialing 911.

Treatment for heart failure consists mainly of three major types of heart medicines. The first group are called diuretics and basically help your body to get rid of excess fluids by making more urine. The second group

are called vasodilators because they make your blood vessels larger, thereby lowering the arterial blood pressure against which your heart has to pump blood through the circulation. This relieves the strain on the failing heart and permits a more adequate delivery of blood to your vital organs. Some vasodilators work more on veins than on arteries. In this latter case the medicines make the veins larger, resulting in more blood pooling in the veins rather than rushing back to the heart all at once, thereby, once again, relieving the stress on the failing heart. A particularly important class of vasodilators to ask your doctor about are known as angiotensin converting enzyme (ACE) inhibitors. Beta-blockers are a class of drugs that help to slow the heart rate and improve the relaxation of heart muscle. They have been shown in studies of heart failure patients to help improve the function of the failing heart and reduce the likelihood of death. Finally, if you are of African descent and have been diagnosed with severe heart failure, you should ask your doctor about two drugs, both of which are vasodilators, which were shown in a large study to reduce the likelihood of death by approximately forty percent. The first of these drugs is an arterial vasodilator called Hydralazine, while the other drug is a venous vasodilator called Isosorbide Dinitrate. These two drugs should be added to the standard combination of medicines used to treat heart failure in non-black populations.

I would like to conclude this article by emphasizing that heart failure is a major cause of disability and death in all populations, but it is particularly problematic in blacks due to the widespread occurrence of hypertension, the lack of awareness of the disease and consequent sub-optimal diagnosis and treatment, and the prevalence of other major risk factors for heart failure in people of African descent. It is important to have your blood pressure checked regularly, and to maintain awareness of other important risk factors. Symptoms suggestive of heart failure should prompt rapid evaluation by a physician, and if the diagnosis is confirmed, it is imperative to comply with recommendations for risk factor modification and treatment that you receive from your doctor.

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Last updated November 22, 2015