



TDCJ Risk Management's *Training Circular*

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The HEART of the matter



With Valentine's Day approaching fast, many share their hearts and soul with their loved ones.



But, it is important to make sure that you have a healthy heart and body to share. Taking care of ourselves shows our loved ones that we care about them. Let's look at some things to consider about our health.

Why Is Cholesterol Important?

Your blood cholesterol level has a lot to do with your chances of getting heart disease. High blood cholesterol is one of the major risk factors for heart disease. A risk factor is a condition that increases your chance of getting a disease. In fact, the higher your blood cholesterol level, the greater your risk for developing heart disease or having a heart attack. Heart disease is the number one kil-

ler of women and men in the United States. Each year, more than a million Americans have heart attacks, and about a half million people die from heart disease.

How Does Cholesterol Cause Heart Disease?

When there is too much cholesterol (a fat-like substance) in your blood, it builds up in the walls of your arteries. Over time, this buildup causes "hardening of the arteries" so that arteries become narrowed and blood flow to the heart is slowed down or blocked. The blood carries oxygen to the heart, and if enough blood and oxygen cannot reach your heart, you may suffer chest pain. If the blood supply to a portion of the heart is completely cut off by a blockage, the result is a heart attack.

High blood cholesterol itself does not cause symptoms, so

many people are unaware that their cholesterol level is too high. It is important to find out what your cholesterol numbers are because lowering cholesterol levels that are too high lessens the risk for developing heart disease and reduces the chance of a heart attack or dying of heart disease, even if you already have it. Cholesterol lowering is important for everyone - younger, middle age, and older adults; women and men; and people with or without heart disease. To learn more about cholesterol, contact your physician.

High Blood Pressure

Blood pressure is the force of the blood against the artery walls. High blood pressure (hypertension) and low blood pressure (hypotension) can both cause cardiovascular problems. Ambulatory blood



pressure monitoring or tilt table tests may be used to diagnose these conditions. There are many types of high blood pressure, which may be treated with antihypertensive medications, such as diuretics, beta blockers and ACE inhibitors.

High Blood Pressure: Fast Facts

- Until age 55, more men than women have high blood pressure, but the numbers begin to even out until, beyond age 74, significantly more women than men have high blood pressure.
- Untreated, high blood pressure will cause the heart to overwork itself to the point where, eventually, serious damage can occur.
- High blood pressure is present in about half of people having first-time heart attacks and two-thirds of those having first-time strokes.
- More than 50 million people in the United States over age six (and one in four adults) have high blood pressure.
- Forty-five million Americans (22 percent of adults) have prehypertension, blood pressure that is on the borderline between normal and elevated.
- Nearly a third (30 percent) of people with high blood

pressure don't know they have it. Another 36 percent either aren't on medication or don't have their blood pressure adequately controlled.

- The majority of people with mild to moderate high blood pressure do not have any noticeable symptoms.
- One in three cases of heart failure in women results from high blood pressure.
- Blood pressure tends to get higher as women age. More than half of women over age 50 suffer from high blood pressure.
- High blood pressure is two to three times more common in women taking birth control pills than those not taking them. The risk is especially high in women who take the pill and are overweight or obese.
- Women who have had a heart attack are less likely to experience a second one if they lower their blood pressure.
- During pregnancy, some women may develop high blood pressure even if they have never had the condition before. This gestational hypertension has been shown to increase the risk of high blood pressure and stroke later on in life. Some women who already have high blood pressure may see it worsen during pregnancy. Also, pre-

clampsia, a condition related to high blood pressure and the presence of protein in a pregnant woman's urine, is the second leading cause of maternal death in the United States.

Diabetes

Diabetes is one of the major risk factors for heart attack, stroke and other cardiovascular-related diseases. The majority of diabetic patients have high blood pressure, which contributes to heart disease and other diabetic complications. People with diabetes can reduce their chances of cardiovascular disorders by exercising, eating right and not smoking

Type 1 Diabetes

Type 1 diabetes occurs when the pancreas cannot produce insulin, a hormone essential for moving glucose from the blood into cells. Type 1 diabetes was once called juvenile diabetes because it is usually diagnosed in childhood. People with type 1 diabetes must supply insulin by injection, pump or other methods. Possible treatments include transplant of a pancreas or beta cells

Type 2 Diabetes

Type 2 diabetes is the most common type of diabetes. It

occurs when glucose builds up in the blood due to the body's inability to use insulin effectively. Type 2 diabetes was once called adult onset diabetes because it is usually diagnosed in adulthood. The disease may be prevented or controlled through diet and exercise, but some patients need insulin or other medications.

Insulin

Insulin is a hormone produced by the pancreas that helps move glucose into the cells. Diabetes occurs when the body cannot make or respond to insulin and glucose builds up in the blood. People with type 1 diabetes and some people with type 2 diabetes administer insulin to themselves daily. Methods of administration include syringe injections, insulin pumps and insulin pens

Asthma

Asthma is a chronic inflammation of the body's bronchial (airway) tissues. People with asthma experience shortness of breath, chest tightness, coughing and wheezing. These symptoms intensify during an asthma attack, which occurs when exposure to allergens or other stimuli further inflame the airways, leading to an inability to expel trapped air from the lungs.

Stress

Stress is the medical term for a person's physical and emotional response to change. It affects individuals of all ages. Although most people tend to view all types of stress as bad, stress can be either positive or negative. Sources of positive stress include having a new baby and starting an exciting new job. Sources of negative stress include divorce, unemployment and legal battles. It may take only a short time to adjust to the change (acute stress), or the adjustment may be more gradual (chronic stress).

Acute stress is an immediate reaction to a change that is perceived as threatening (stressor). Sources of acute stress include suddenly being cut off by a car in traffic, and hearing a loud, unexpected noise. In addition to creating feelings such as fear and/or anxiety in the person, stress can also set off the body's alarm system, triggering a "fight or flight" response. This short-term response prepares the body to either fight or flee from a perceived threat. If all stressors were acute, people would simply respond to an immediate threat, and then their body's systems would return to normal. However, people encounter many changes to which it is more difficult to respond, such as

daily job stress, unrelenting financial pressures and dysfunctional, long-term relationships. The longer people go without either changing or adapting to these changes, the longer they will experience stress. The type of stress that people experience for a long period of time is called chronic stress.

Because chronic stress results from changes that are not addressed, this lack of action leaves the body in a state of heightened awareness or tension. Sooner or later, the energy drain on the system will cause the body to fall behind in the self-repair and maintenance necessary for good health. The unrelenting wear and tear brought about by stress hormones can affect the body systems:

Fatigue

Fatigue is a lack of energy or a feeling of debilitating tiredness. It affects almost everyone at some point. It can be a normal response to overexertion, stress or minor illness such as a cold. However, it can also be a symptom of a medical condition or signal that a disease has worsened. Most people can recover from fatigue due to nonmedical origins in a short period of time. However, continually getting inadequate amounts and quality of sleep can create a sleep

debt even in otherwise healthy people. Long-term sleep debt can cause health problems that require medical attention. Fatigue alone can also significantly influence the ability of people to function.

The many conditions that can cause fatigue include pain disorders, diabetes, heart disease, lung problems, mental conditions, digestive disorders or cancer. It may also be due to certain medications or other medical treatments. Diagnosis typically begins with a review of the patient's medical history and a physical examination. Factors important in the history include current medical conditions, medications and pattern of fatigue.

Patients may be diagnosed with chronic fatigue syndrome if they have debilitating fatigue for at least six months and meet certain other criteria. Treatment focuses on addressing the underlying cause of fatigue and achieving adequate rest. Possible options may include sleep therapy, exercise, or changes in diet or medication. People can help prevent fatigue by getting regular medical care and practicing good health habits such as exercise, diet, stress management and regular sleep.

Physical fitness

Being sedentary has several negative health consequences.

Your muscles, including your heart and lungs, become weak; your joints become stiff and easily injured; you can develop high blood pressure, fatigue, obesity, osteoporosis, constipation, and increased sensitivity to pain, anxiety and depression. Being physically fit, on the other hand, actually reduces the risk of heart disease, cancer, high blood pressure, diabetes, and other diseases. The good news is, it's never too late. At any age, at any level of health, even if you already suffer from a chronic disease, you can improve your level of fitness. In fact, according to the U.S. Surgeon General's Report on Physical Activity and Health, women with heart disease or arthritis actually experienced improved daily function due to involvement in various modes of physical activity.

Cardiovascular fitness: Your heart, lungs and blood all need oxygen to work. Your level of cardiovascular fitness will determine your body's ability to use oxygen as a source of energy. It gives you the stamina or endurance to be active without gasping for breath.

Muscular strength and endurance: This is the force your muscles can exert and their ability to keep moving without becoming exhausted.

Flexibility: Flexibility helps to maintain the optimal range of

motion in the joint areas, making bending and stretching easy.

Body composition: There should be a healthy ratio of lean muscle tissue to fat.

Show your loved ones you care.....

Stay healthy and have fun



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