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EC79-551 Save Your Heart

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Heart Risk Factors:
- Smoking
- Overweight
- Too Little Exercise
- Poorly Handled Stress
- Improper Diet
- Hypertension
- Diabetes
- Age
- Sex
- Family History

The first five risk factors are habits or patterns you can do something about—they can be reduced or eliminated.

The next two risk factors or diseases—can very often be controlled.

The final three factors have to do with who you are—they cannot be changed.

Being responsible for your health care implies an understanding of the important aspects of behavior that you can control. In guarding your heart, remember that the effects of risk factors add up. Research shows that the more risk factors you have, the more likely it is that you will develop heart disease, or some other serious illness. The fewer risk factors you have, the more likely it is that your body will withstand such a disease.

RISK FACTORS IN HEART DISEASE
Cigarette Smoking

Cigarette smoking increases the risk of coronary heart disease. The more you smoke, the greater the risk.

What individual behavioral factors influence the need to smoke? Is the smoker or the smoking the culprit? Do those who smoke for some genetic, constitutional, or behavioral reasons display an increase in coronary heart disease? Do they smoke to fill a need unique to their behavioral configuration? Do they have a higher level of emotional stress and tension than those who can either resist smoking initially or discontinue it?

New and greater concerns must be raised for women because of the increasing number who smoke and the greater risk factor present for those who smoke in combination with the use of oral contraceptives. Current research indicates that persons who have never smoked or who have quit smoking have a decreased incidence of heart disease.

Recent German investigations reveal that heavy cigarette smokers are much younger at the time of acute heart attack. It is still to be determined whether stopping smoking reduces coronary heart events as a result of chemical or behavioral adjustments. From a practical standpoint, however, stopping smoking remains the most powerful preventive tool against coronary arteriosclerosis of all other risk variables.

High Blood Pressure

High blood pressure is a common problem—one out of every five Nebraskans is affected. People with untreated high blood pressure have an increased risk for strokes, heart disease, and kidney failure. In fact, all of the recent publicity concerning the dangers of hypertension—often referred to as the “silent killer” because it rarely produces warning signals—is based on evidence that effective treatment reduces the risk of early disability or death. At present, most physicians recognize the importance of treating an otherwise healthy person whose blood pressure, on repeated examination, is or exceeds “160 over 100.” But what about the “gray” areas of milder elevations of blood pressure or readings that are in the high range only once in a while?

High blood pressure refers to the fact that, at a given moment, one’s blood pressure is “up” compared to the normal range for his age. Such an elevation can occur during moments of tension or even quiet concern (as is often the case when someone’s blood pressure is being checked). While it is generally typical for blood pressures to increase with age, you should check with your physician to learn what is “normal” at your present age. Most physicians encourage people to maintain a stable reading throughout life.

The diagnosis of hypertension should be reserved for a pattern of consistently elevated blood pressure as determined by at least two separate blood pressure measurements by the same person using the same equipment under relaxed conditions—unless the initial blood pressure is so high as to indicate clearly an abnormality that does not need further verification. There is good reason for being cautious in labeling someone as hypertensive, because this diagnosis usually leads to a recommendation for extended if not life long treatment, as well as to increased insurance premiums.

In deciding whether a given level of pressure deserves treatment, many physicians consider the presence of factors that tend to increase the risk of
complications such as smoking, diabetes, elevated cholesterol levels, and family history.

Some people unusually require special treatment for patients with even mild hypertension; they argue that blood pressure readings comprise a continuum in terms of complications and even patients who are borderline hypertension will, in time, develop more strokes than those in lower ranges. Other physicians are less convinced of the need to recommend therapy to combat what they perceive to be a slight risk.

Causes. The majority of hypertension cases turn out to have no identifiable cause required; these cases are referred to as "primary." We know that hormones and nerve impulses may contribute to primary hypertension. Some families may show a pre-disposition to hypertension problems. In addition, the following factors are of increasing interest in terms of prevention and treatment.

Salt Intake. Recent evidence suggests that certain animals simply by feeding them high salt diets (the real culprit in salt is the sodium content). And human societies in which individuals daily salt intake averages less than 4 grams (one scant teaspoon)—versus the average American consumption of 12 grams—show a greatly reduced occurrence of hypertension. Few experts claim that salt is the sole cause of hypertension; they do indicate salt as an important contributing factor in the 10-20% of Americans who are genetically susceptible to hypertension. Even persons in whom the hidden salt in the processed food of the typical American diet is a real hazard. For example, (Consumer Reports) says one ounce of Corn Flakes contains twice as much sodium (the component of salt related to high blood pressure) as an equivalent serving of Peanuts Peanuts, and a Big Mac hamburger comes loaded with five times as much sodium as the one ounce of Corn Flakes. Salt is an acquired taste; we can learn to live without.

Excessive Weight. Many studies have documented that obesity increases risk of hypertension. Indeed, the association of heart disease with excessive weight appears not to be due to weight itself—but to the higher incidence of hypertension, diabetes, and heart disease in obese persons. Conversely, weight loss can serve as effective treatment for high blood pressure—and is sometimes all that's needed in mild cases. The role of exercise in the prevention of hypertension is less clear—though its contribution to weight loss would be expected to decrease hypotension.

Tobacco. Recent evidence suggests that cigarette smoking is more than a risk factor for coronary heart disease. Smoking is a contributing factor to atherosclerosis, a disease characterized by a thickening of the artery wall that narrows the blood vessels. In addition, smoking is a major cause of death in the United States, responsible for more deaths each year than are caused by accidents, cancer, and heart disease combined. Smoking also decreases the amount of oxygen that reaches the body's tissues, which can lead to a variety of health problems, including respiratory infections, cardiovascular disease, and cancer.

Other Risk Factors. In addition to the risk factors already discussed, other factors such as age and gender also contribute to the development of hypertension. Generally, the risk of developing hypertension increases with age, and women are at higher risk than men. Other factors that may increase the risk of hypertension include family history, high blood pressure in parents, and certain medical conditions such as kidney disease, diabetes, and obesity.

Prevention. Preventing hypertension involves a combination of lifestyle changes and medical interventions. Lifestyle changes include maintaining a healthy weight, eating a diet low in sodium and high in fruits, vegetables, and whole grains, exercising regularly, limiting alcohol consumption, and avoiding tobacco use. Medical interventions may include medication or other treatments prescribed by a healthcare provider.

Conclusion. Hypertension is a serious health condition that can lead to serious complications if left untreated. However, with lifestyle changes and medical interventions, it is possible to manage and control hypertension. It is important to monitor blood pressure regularly and to work with a healthcare provider to develop a plan to prevent and treat hypertension.

References and Resources:


commonly in the legs and ankles. Sometimes fluid collecting in the lungs interferes with breathing and makes the patient short of breath.

Heart failure also affects the ability of the kidneys to dispose of sodium and water. The sodium which is normally eliminated in the urine stays in the body and holds the water there, too. The fluid retained in this way adds to the extent of the edema.

*Signs and Symptoms.* Difficulty in breathing and swelling (edema) are the most common indications of heart failure. When activities a person usually performs without trouble begin to cause unusual shortness of breath, consult a physician. This could happen in climbing a flight of stairs, or in hurrying for a bus. Waking at night with shortness of breath, if it occurs often, is another symptom. Sometimes heart failure patients must prop themselves up in bed with two or more pillows before they can sleep and breathe comfortably.

Swelling in the legs, ankles, and sometimes in the abdomen, and increasing weight, caused by an accumulation of water in tissues, also may be signs.

*Do these signs and symptoms always mean the heart is failing?* Certainly not. Vigorous exercise, even in a trained athlete, can make breathing difficult. Any unusual exertion and even excitement or nervousness can cause shortness of breath as can selected allergic reactions and lung conditions. But labored breathing during ordinary activity may be a warning signal.

Puffy ankles, common to many people are due to many causes. Varicose veins, pregnancy, and other conditions cause them, or they may swell up just from sitting or standing for a long time. Whenever there is a history of heart disease, report the swelling to a physician.

*Does heart failure come suddenly?* Not as a rule. There are some acute, emergency cases, but usually the condition develops slowly. It builds up as the heart muscle, already weakened by a heart condition, is increasingly strained. As effects accumulate, signs and symptoms become more apparent.

Only a physician can recognize and treat heart failure. The sooner he is consulted, the sooner the condition can be relieved or controlled.

*Is it a serious condition?* Yes. However, most mild and moderate cases, and many severe ones, respond well to treatment. Patients usually can live comfortably and usefully when they cooperate with their physician in a well-monitored treatment program. Even when they begin to feel well, they should continue medication and limit their activities for as long as advised. With medical supervision, heart failure need not make an invalid of the patient.

**SUMMARY**

Is there enough evidence to warrant any kind of risk factor modification? In certain areas, the answer is a resounding yes. These areas, in order of priority, include cigarette smoking, hypertension, weight control, and dietary modification. The role of diabetes is less clear. While no clear evidence has yet demonstrated the contribution of sedentary life-style, an improvement of some risk factors can be achieved through exercise. The most controversial factor at this time is cholesterol level and its effect on heart disease.

Although cause and effect relationships are unclear, the predictive value, in a purely actuarial sense, of cigarette smoking, hypertension, and obesity (when associated with another risk factor) is not well-known but is an important rating practice of insurance companies. For example, control of cigarette smoking and hypertension has been followed by lowered incidence of heart disease and complications. Still, the traditional risk factors have not been identified in more than half the new cases of coronary heart disease. This demonstrates the need to seek new avenues toward the solution of the heart disease dilemma.

There are other influences, risk factors, interactions, yet to be determined. Differences in cultures and societies are complicated, but the presence or absence of industrialization readily distinguishes the risk of coronary heart disease. The more industrialized the culture, the higher the risk of heart disease. Therefore, risk factors must be considered in concert with the degree of industrialization of the society in question. The role of industrialized society needs to be better understood and clarified with regard to its impact on coronary heart disease.

**Actions**

You can do something to decrease risk from coronary heart disease (atherosclerosis). These actions for good heart health for the whole family include:

- No use of cigarettes
- A careful monitoring of possible hypertension
- Maintenance of a desirable weight
- A proper diet which includes a variety of foods
- Adequate exercise
- Handling of stress within a positive life style
- Appropriate actions and reactions to present age, sex, and family history (genetic inheritance)

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