

Factors that Affect Blood Pressure

Blood pressure is the force of blood against the walls of the arteries as the heart pumps blood throughout the body. Many factors affect blood pressure, causing it to change from day to day and throughout the day. We are unable to control some of the factors that increase the risk of developing high blood pressure like being African American, over the age of 35, family history of high blood pressure, or having diabetes, gout or kidney disease, but the good news is that there are some that we can change! Check out the list below.

Exercise

Regular exercise, along with an active lifestyle, may decrease blood pressure. To significantly reduce the risk of developing high blood pressure, it is recommended that adults participate in 150 minutes a week of cardiovascular exercise such as walking, cycling and swimming. Increasing daily activity by walking to and from class and work (rather than taking the bus) and walking up and down stairs (versus riding the elevator), will also contribute to an active, healthy lifestyle.

Make an appointment with the McKinley Fitness Specialist at SportWell Center if you have questions about blood pressure and exercise.

Nutrition

Research has shown that diet affects the development of high blood pressure (hypertension). The DASH (Dietary Approaches to Stop Hypertension) eating plan is recommended if your blood pressure is high or if you are at risk for high blood pressure. DASH is a combination diet that is low in fat and rich in fruits and vegetables. It is low in cholesterol and saturated fat, high in dietary fiber, potassium, calcium and magnesium and moderately high in protein.

DASH includes more than eight servings of fruits and vegetables daily. Fruits and vegetables that are particularly high in potassium and magnesium are recommended including:

- tomatoes
- potatoes
- carrots
- green peas
- squash
- broccoli
- greens
- artichokes
- green and lima beans
- sweet potatoes
- apricots
- bananas
- dates
- grapes
- oranges
- grapefruit
- mangoes
- melons
- peaches
- pineapple
- prunes
- raisins
- strawberries
- tangerines

Two to three servings of low fat dairy products per day contribute calcium and protein to DASH. Whole grains from cereals, breads and crackers contribute fiber and energy. Lean meat, poultry and fish (less than six ounces per day) provide more potassium and protein. To boost potassium, fiber, protein and energy intake even more, DASH recommends nuts, seeds or cooked dried beans 4-5 times per week.

Healthy weight management and appropriate intake of salt (sodium) are both very important in blood pressure control. Try to limit the amount of processed and fast food you eat and take the salt shaker off the table - don't add salt to food after it is cooked. DASH helps you eat a healthful diet and can also help manage weight.

Make an appointment with the McKinley Registered Dietitian if you have questions about blood pressure and diet.

Alcohol

Alcohol is a drug, and regular over-consumption can raise blood pressure dramatically, as well as cause an elevation upon withdrawal. Try to limit alcohol to twice a week and drink only 1-2 servings (equivalent to two four-ounce glasses of wine, two eight-ounce glasses of beer or two shots of spirits).

Also, remember that alcohol intake can be a factor in weight gain. The current recommendation is to limit alcohol intake to no more than two drinks per day for most men and no more than one drink per day for women and lighter-weight persons.

Stress

The effects of stress can vary, but long-term, chronic stress appears to raise blood pressure. Various relaxation techniques such as deep breathing, progressive relaxation, massage and psychological therapy can help to manage stress and help lower stress-induced blood pressure elevations.

Smoking

Smoking is the third leading cause of death in the United States. Smoking causes peripheral vascular disease (narrowing of the vessels that carry blood to the legs and arms), as well as hardening of the arteries. These conditions clearly can lead to heart disease and stroke and are contributing factors in high blood pressure. Don't start smoking and if you do smoke, seek assistance with quitting.

For more information about high blood pressure, contact your health care provider or visit McKinley Health Center's Web site at: www.mckinley.uiuc.edu, search for blood pressure.

Additional McKinley Handouts

- Dietary Guidelines for Americans
- What Does Blood Pressure Mean?
- Tips for Healthy Living
- Heart Healthy Eating
- Omega-3 Fatty Acids
- Reducing the Sodium in Your Diet

References

American Academy of Family Physicians Web site, search for blood pressure factors, hypertension factors

American Heart Association Web site, search for blood pressure factors, hypertension factors

National Heart, Lung and Blood Institute Web site, search for blood pressure factors, hypertension factors
Mayo Clinic Web site

American Academy of Family Physicians

American Heart Association

American Heart Association. (2004) What is high blood pressure?. Dallas: Author. Braun, L.T. & Peterson, D.M.

(2006) Patient information: Exercise. UpToDate Web site

National Heart, Lung and Blood Institute

Kaplan, N. M. (2007) Patient Information: Hypertension, diet and weight. UpToDate Web site

Rose, B. D. (2005). Patient Information: Overview of hypertension. UpToDate Web site

The seventh report of the Joint National Committee on Prevention, Detection, Evaluation and Treatment of High Blood Pressure, (2003), Journal of the American Medical Association; 289: 2560.

If you are a registered University of Illinois student and you have questions or concerns, or need to make an appointment, please call: **Dial-A-Nurse at 333-2700**

If you are concerned about any difference in your treatment plan and the information in this handout, you are advised to contact your health care provider.

Visit the McKinley Health Center Web site at: <http://www.mckinley.uiuc.edu>