

Hypertensive Kidney Disease

Hypertension (high blood pressure) causes problems for many organs in the body, including the kidneys. Kidney problems caused by high blood pressure (**hypertensive kidney disease**) occur often in persons who have undetected, untreated, or poorly controlled hypertension. Kidney problems are also called **renal dysfunction** or **renal failure**.

Certain groups of people, including African Americans and Native Americans, are more at risk for having hypertensive kidney disease. High blood pressure is the second leading cause of kidney failure, surpassed only by diabetes. African Americans are 6 times more likely than whites to have chronic renal failure related to high blood pressure.

The November 20, 2002, issue of *JAMA* includes an article about high blood pressure and its effect on the kidneys.



WHY IS HIGH BLOOD PRESSURE DANGEROUS?

High blood pressure makes the heart work harder and can also damage the small blood vessels in the body. These vessels are in all organs of the body, including the kidneys, the heart, and the brain. Damage to the arteries (blood vessels that carry blood to organs) results in insufficient blood flow to those organs and organ damage. In the kidney, this organ damage is called **nephrosclerosis**. The kidneys lose their ability to filter blood, allowing buildup of substances that can be toxic to the body. Eventually the kidneys fail, and **dialysis** (filtration of blood by a special machine) or a kidney transplant becomes necessary to preserve the person's life.

It is important to know that a person can have high blood pressure and not be aware of it because he or she does not have any symptoms. Damage to the body's organs may occur before a person develops any symptoms if high blood pressure is not controlled.

HOW TO PROTECT THE KIDNEYS

- Know your blood pressure—see a doctor regularly, especially if you are at risk for high blood pressure because of family history, racial group, overweight, diabetes, older age, or lack of exercise.
- Control your blood pressure with diet, exercise, and medication as prescribed by your doctor.
- Maintain a healthy weight.
- Exercise regularly.
- Eat a low-salt, low-fat diet that is rich in vegetables and fruits.
- See a doctor if you experience swelling, decreased urine flow, blood in your urine, painful urination, or if you have unexplained fatigue.

Persons with diabetes and high blood pressure are at special risk for kidney disease. Paying attention to both blood pressure control and blood sugar management will help reduce chances of developing kidney disease.

FOR MORE INFORMATION

- American Heart Association
800/242-8721
www.americanheart.org
- National Institute of Diabetes & Digestive & Kidney Diseases
www.niddk.nih.gov/health/kidney/pubs/highblood/highblood.htm
- National Kidney Foundation
800/622-9010
www.kidney.org

INFORM YOURSELF

To find this and previous *JAMA* Patient Pages, go to the Patient Page Index on *JAMA's* Web site at www.jama.com. They are available in English and Spanish. A Patient Page on kidney failure was published in the December 12, 2001, issue, and Patient Pages on high blood pressure were published in the February 3, 1999, and February 27, 2002, issues.

Sources: American Heart Association, National Kidney Foundation

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