Caring for your kidneys
What you need to know to keep them healthy.

About 23 million adults in the U.S. have chronic kidney disease. But research has found that fewer than half of those with severe conditions are aware of it, in part because the damage can progress for years without causing symptoms. The aging of the population and the rise of obesity, diabetes, and high blood pressure seem to be driving an increase in kidney problems. And even when the disease is diagnosed, people might not receive adequate treatment.

For example, studies suggest that just over half of them receive time-tested medication that helps protect the kidneys by normalizing high blood pressure. And one study found that more than two-thirds of the people with severe kidney disease never received care from a kidney specialist, or nephrologist. Other kidney treatments are overused. Studies in 2010 found that starting dialysis early for patients with stage 4 chronic kidney disease—a practice that’s become widespread—didn’t improve survival or clinical outcomes, and...
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might even increase the risk of dying among healthier patients. Another clinical trial found that the aggressive use of the drug darbepoetin alfa (Aranesp) to combat anemia in kidney patients with type 2 diabetes increased the risk of strokes. Yet another found that stents widely used to open narrowed kidney arteries might not be worth the risks.

But there are steps you can take to protect your kidneys and get high-quality care if you develop serious trouble.

HOW KIDNEYS WORK
Blood passes through tiny filters in both kidneys. Those filters sort substances the body needs—like calcium, sodium, and water—separating them from wastes and excess fluid or urine. Kidneys also produce hormones that help regulate blood pressure and the production of red blood cells.

With advancing age, kidneys can gradually shrink and lose their filtering capacity. And they become more susceptible to damage from diabetes and high blood pressure. Forty-four percent of severe cases are caused by diabetes and 27 percent by hypertension, according to a study published in January 2010 in The New England Journal of Medicine.

Chronic kidney disease and the loss of filtering capacity can cause anemia, bone disease, worsening high blood pressure, and clogged and damaged arteries. Heart disease is a major killer of people with chronic kidney disease; in fact, they’re more likely to die from heart problems than ultimate failure of the kidneys.

GETTING TESTED
Symptoms of kidney disease aren’t very specific. It can cause insomnia, a poor appetite, an upset stomach, weakness, and difficulty concentrating. But people with failing kidneys often have no symptoms until the organs have lost most of their filtering capacity. That makes it especially important for people at risk—those with diabetes, heart disease, high blood pressure, or a family history of kidney disease—to have a doctor check for early kidney problems. Once a year is appropriate for people with diabetes; every one to three years for people with high blood pressure or relatives with kidney failure.

Your doctor should take a blood sample to measure levels of creatinine,

When kidneys fail

Hemodialysis is a treatment of last resort for people with failing kidneys. But dialysis patients in the U.S. face one of the highest death rates in the industrial world, even though taxpayers spend about $77,000 a year per patient, or more than $20 billion per year, according to a 2010 investigation by the nonprofit journalism organization ProPublica.

Hemodialysis treatment is arduous, with sessions often lasting three to four hours, three days a week. ProPublica’s investigation found that many dialysis centers are unsanitary and prone to lapses in care. It recently detailed how the government has withheld critical data about clinics’ performance from patients. To help consumers make informed choices, ProPublica created a website (projects.propublica.org/dialysis) with information about the quality of care at centers in all 50 states, the District of Columbia, and Puerto Rico.

The site allows users to compare inspection deficiencies, infection and death rates, and more. The data come from contractors of the Centers for Medicare and Medicaid Services, the federal agency that oversees most dialysis care.

If you’re considering dialysis, our medical consultants suggest you think about the following:
• Weigh the pros and cons. The chance that it will extend your life or improve your ability to continue daily activities might not be significant. If you’re relatively healthy, avoid early-start dialysis in light of research showing it might increase the risk of death.
• If you’re not already seeing a kidney specialist (a nephrologist), find one that you like and trust to handle your care. A 2010 study found that almost a third of dialysis patients weren’t under a nephrologist’s care before reaching end-stage kidney disease.
• If you decide to start dialysis, a surgeon can establish the safest access point by joining an artery to a vein, usually in your forearm, to form a fistula. Staff members at U.S. centers have increasingly used less-reliable catheters even though they have been linked to a greater risk of hospitalization and death, according to one study.
• Look for a center staffed by registered nurses. The more-frequent use of technicians in the U.S. rather than nurses with additional training could be a factor in the number of deaths related to dialysis that occur in America.
a waste product in your blood that comes from muscle metabolism. Factored into a formula with your age, gender, and race, the creatinine test gives an estimate of your kidney filtration rate, or e-GFR.

A lower-than-normal filtration rate doesn’t necessarily mean you have kidney damage. Estimates of filtration rates based on blood creatinine levels can misclassify a person’s kidney function, according to a study in April 2011, in which researchers used more sophisticated tests to look for kidney disease in thousands of adults. The American Kidney Foundation recommends testing also for protein in urine. If you get abnormal results, repeat the tests in a few months. A second set of abnormal findings indicates the need for further investigation. Your doctor should first rule out reversible causes of reduced kidney function, such as a urinary-tract infection or obstruction, or medication side effects.

**PREVENTING HARM**

If you have chronic kidney disease, your risk of progressing to end-stage kidney failure increases with lower estimated filtration rates. It also increases if you develop kidney disease at a younger age, and if you’re a man. Consider these lifestyle changes and medication to slow the progression and minimize risks:

- **Control blood pressure.** For people with chronic kidney disease, experts advise keeping blood pressure below 130/80 millimeters of mercury, lower than the hypertension cutoff of 140/90 mmHg. Hypertension can be controlled by moderately restricting sodium to 1,500 milligrams daily to protect the kidneys. In addition, studies have identified two blood-pressure drugs as effective in slowing kidney disease: ACE inhibitors (Prinivil, Zestril, and generic) and enalapril (Vasotec and generic), and angiotensin-receptor blockers such as candesartan (Atacand) and losartan (Cozaar and generic). If kidney damage is causing excess protein to be excreted in urine, those drugs can be worth taking.

- **Control diabetes.** People with diabetes can slow the progression of early kidney damage by controlling blood sugar. The risk of it progressing to a more serious situation could be cut in half, according to the American Diabetes Association. It recommends a target of 7 percent or below, as measured by the hemoglobin A1c test, or HbA1c.

- **Limit potassium.** Diseased kidneys have difficulty excreting potassium, which can build up and cause abnormal heart rhythms. Potassium-rich foods include bananas, raisins, and tomatoes.

- **Exercise more, eat less.** A fitness routine that gets your heart pumping can lower your blood pressure, control diabetes, and help you maintain a healthful and balanced diet with less potassium.

- **Avoid medication that can harm kidneys.** Dozens of commonly used drugs—notably NSAIDs such as ibuprofen (Advil, Motrin, and generic) and naproxen (Aleve, Naprosyn, and generic)—are associated with kidney damage, as are the dyes used as contrast-enhancing agents for imaging. Herbal supplements can be very dangerous, and the lack of regulation makes them even riskier. For pain relief, try acetaminophen (Tylenol and generic) instead of NSAIDs. If that doesn’t help, use NSAIDs at the lowest effective dose and have your doctor monitor kidney function if you take them longer than 10 days.

- **Quit smoking.** Heart disease becomes a much greater risk to the kidneys if you smoke. In smokers with kidney disease, smoking nearly doubles the rate of progression to end-stage renal failure.