When was the last time you thought about your kidneys? Seems like a strange question, but even if it’s only once a year, you should pay attention to these wonderfully efficient organs. Not only do they filter out toxins and regulate the amount of fluid in our systems, they trigger vital hormones, including one that stimulates the production of red blood cells. In short, kidneys are truly vital organs.

But our kidneys are more and more at risk. The current trend toward obesity has meant a rise in type 2 diabetes – and diabetes accounts for 50 percent of all kidney failure in the U.S. Weight gain and stress can also cause high blood pressure, another major cause of end-stage kidney disease. As we age, we are increasingly susceptible to these life-threatening problems.

Nephrologists are doctors who treat kidney problems medically (urologists specialize in surgical treatment), and they urge people – especially African-Americans and Hispanics – to talk to their primary care doctors about checking their kidney health every year with a simple blood test and a urinalysis. If these tests indicate kidney disease, or if any member of your family has had kidney failure, you should see a nephrologist.

New medical guidelines for staging kidney disease have been posted on the Internet and discovering the problem early may help avoid or delay the need for dialysis.

What is dialysis? “It’s an artificial life-support system,” says Siva Ambalavanan, MD, medical director of Miami Valley Hospital’s inpatient Artificial Kidney Unit. “If the patient is not a candidate for kidney transplant, dialysis is a life-long commitment.”

Receiving dialysis enabled Greg Hodges to lead a healthy, active life that includes teaching Tyler, his five-year-old son, to play baseball.

“If a patient is not a candidate for kidney transplant, dialysis is a life-long commitment.”

Siva Ambalavanan, MD
How does hemodialysis (the most prevalent treatment) work? The patient’s blood is run through an “artificial kidney” that filters out toxins and removes excess fluid. The blood goes through small tubes surrounded by materials that attract molecules of potassium, some phosphates and other harmful substances. The toxins are carried away by purified water that never touches the patient’s blood. Negative pressure removes excess fluids and restores fluid balance. Dialysis, however, will not stimulate hormones as a healthy kidney does; injections of hormonal stimulants replace this function.

Nephrologist Rajnish Dhingra, MD, is medical director of the hospital’s outpatient Artificial Kidney Unit. “Chronic hemodialysis became available in the 1960s and patients had to live in the hospital during those early days,” he explains. “Now, the process has been refined so that dialysis can be done in as little as three hours.” Safety measures have also become state of the art, with computer monitoring of each part of the process, reacting to fluctuations in the patient’s blood pressure and much more.

Since dialysis now requires less time and is safer, the next step is to bring dialysis closer to patients. “We focus on community-based care,” says Jane Robinson, RN, director and chief operating officer of the Dialysis ProHealth 5.
Centers of Dayton, LLC, and administrator for Miami Valley Hospital’s artificial kidney programs. For that reason, Miami Valley Hospital and Renal Partners III have opened dialysis centers in south, north and east Dayton. In cooperation with Wayne Hospital, another unit was opened in Darke County in 2003. And this year, Warren County’s first and only dialysis center opened in Springboro.

“It is a state-of-the-art facility,” Dr. Ambalavanan says, “designed with lots of sunlight and a welcoming atmosphere for patients.” Because treatment takes three to six hours, three times a week, it’s important that dialysis centers are close to the patients who use them. The new center is a great convenience for Warren County patients and their families.

“Our goal is to fit dialysis into our patients’ lives,” says Robinson, “rather than making our patients fit their lives to dialysis.”

Approximately 380,000 people in the United States are on dialysis, and the number of new patients is growing by about eight percent nationally each year. In our area, about 1,200 people use the dialysis centers around the Dayton area.

As convenient as the Dialysis Centers of Dayton are, the doctors who practice there hope to reduce the number of new patients who need dialysis. Dr. Dhingra says, “Patients need to follow the general guidelines for good health and be involved in their care.” He urges people, especially those with diabetes or hypertension, to discuss screening for kidney disease with their own doctor. Dr. Ambalavanan agrees. He says, “Almost one-third of people never see a kidney doctor until they need dialysis. We want to change those statistics.”

Dialysis Centers of Dayton feature six locations, offering convenience to patients.

Jane Robinson, RN, has worked closely with physicians like Rajnish Dhingra, MD, to offer compassion, comfort and convenience to dialysis patients.

Are you Hispanic or African-American? Your risk is greater.

Prevention is especially important for some Americans. Doctors attribute kidney disease to a combination of genetic predisposition and lifestyle that disproportionately affects Hispanics and African-Americans. For instance, African-Americans make up about 12 percent of the U.S. population but comprise 38 percent of dialysis patients. African-Americans also tend to need dialysis at a younger age than other ethnic groups. High blood pressure, the second major cause of kidney failure, is more common among African-Americans, and – compared to Caucasians with high blood pressure – African-Americans are three to four times more likely to experience kidney failure.

If you are Hispanic or African-American, discuss kidney disease prevention measures with your doctor. And if you have a family member on dialysis, make an appointment to have a urinalysis and a blood test today!