

# Diabetes and Kidney Disease

Understanding the connection is the key to prevention

## The relationship between diabetes and kidney disease

First, to set the record straight, if you have diabetes you will not necessarily develop kidney disease. The fact that you are reading this handout already puts you ahead of the curve, because there are steps that you can take to safeguard against chronic kidney disease (CKD).

Diabetes is the leading cause of kidney disease. The other leading causes of CKD are:

- Hypertension (high blood pressure)
- Glomerulonephritis
- Cystic diseases
- Urologic disease.

In diabetics, the body has a hard time producing or properly using insulin. Without insulin, glucose (sugar) remains in the blood and can damage the glomerulus (blood vessels) and nephrons (filtering units) of the kidney. Over time, damage to the kidneys builds and builds until kidney function is lost, resulting in end stage renal disease (ESRD). At this stage, the options are dialysis or transplantation.

## What do the kidneys do

The kidneys are a pair of bean shaped organs that are roughly the size of a fist. The primary function of the kidneys is to filter and clean the blood, which helps to keep the body chemically balanced.

Each day, the body continuously cycles blood through the kidneys and sorts out waste products that become urine. Kidneys also regulate important hormones including: calcitriol that helps control the body's calcium balance, erythropoietin that helps stimulate red blood cells and renin that controls blood pressure.



Squeezeable kidney giveaways at a recent conference

## Diagnosis and prevention

Diabetes and kidney disease share several common traits and symptoms. Both can go undetected for many years, worsen over time and have symptoms that are not unique to their disease.

Risk factors that overlap:

- High blood pressure
- Obesity
- Ethnicity
- Age
- Family history

As kidney disease progresses, common symptoms include:

- Frequent urination
- Tiredness
- Swelling around extremities
- Trouble eating
- Muscle cramping

“The good news is even with a diagnosis of kidney disease and diabetes, there are still steps to slow any damage to the kidneys.”



DPC Board Members and Patient Ambassadors at the March 2012 Fly-in Event

## Prevention continued

If you are diabetic or have other risk factors you should be screened for kidney disease by your doctor. There are also resources available for free screenings. During the screenings, medical staff will test your blood pressure, your blood for urea, electrolytes and creatinine levels and your urine for signs of protein.

The good news is even with a diagnosis of kidney disease and diabetes, there are still steps to help slow any damage to the kidneys. The following steps help minimize damage to the kidneys.

- Pay extra attention and keep blood sugar levels in the normal range
- Manage weight through diet control and exercise
- Control of lower blood pressure to <120/80 mm Hg
- Work closely with medical staff to monitor kidney function and make adjustments as necessary

## About Dialysis Patient Citizens (DPC)

As America's largest patient-led organization representing dialysis patients, DPC's membership consists of more than 24,000 dialysis and pre-dialysis patients and their families. DPC seeks to ensure that the patient's point of view is heard and considered by policy makers and the public on a wide range of issues, so progress continues in the quality of care and life for all dialysis patients.

DPC's mission is to improve the quality of life of dialysis patients by engaging policy makers, providers and the public.

In 2012, to accomplish the mission, DPC has:

- Met with hundreds of Capitol Hill offices
- Fought for patient rights through numerous comment letters and meetings with state and federal policy makers
- Created fact sheets and issue briefs
- Generated educational tools and classes
- Secured coverage of patient issues in national media outlets
- Held Congressional briefings
- Led national training and education calls

Since diabetes and kidney disease are strongly interrelated, DPC and its membership prioritize partnerships with organizations such as the American Diabetes Association to create awareness of diabetes and stop the global spread of the disease.

If you or a family member are impacted by kidney disease and want more information please contact DPC staff at [dpc@dialysispatients.org](mailto:dpc@dialysispatients.org).