## What are the stages of kidney disease?

In 2002 the National Kidney Foundation published treatment guidelines that identified five stages of kidney disease. These nationally recognized stages are determined by your nephrologist and the GFR calculation. Your glomerular filtration rate, also called GFR is an important tool in determining your stage of kidney disease. The glomeruli are small blood vessels within the kidney where waste products are removed. When someone has Chronic Kidney Disease the glomeruli are damaged and do not function properly. The treatment guidelines from the National Kidney foundation recommend different actions based upon your stage of Chronic Kidney Disease (CKD). Your personal treatment course will be determined by your nephrologist based upon your needs as a patient. Our primary goal at Southwest Kidney Institute is to slow the progression of CKD which has five stages and our physicians utilize many available treatment options to achieve this. The various treatments of End Stage Renal Disease include no treatment, Renal Replacement Therapy also known as dialysis, and transplantation. At Southwest Kidney Institute your nephrologist, a nurse educator and social workers are available to help you determine what option is best for you.

**STAGE ONE:** Kidney damage with a normal GFR (GFR 90 or above). Kidney damage may be detected before the GFR starts to decline depending on your disease. In the first stage of kidney disease the primary goal is to slow the progression of kidney disease and reduce kidney damage and the risk for heart and vascular disease. There are usually very few signs of disease at this point. Your nephrologist may have you stop certain medications that are toxic to your kidneys and use ones that are safer for you.

**STAGE TWO:** Kidney damage accompanied by a mild decrease in GFR (GFR 60-89). When a decline in your kidney functions occur your nephrologist will monitor progression of your kidney disease, adjust your medications as necessary and continue other treatments deemed necessary to reduce your risk from other health problems while diligently working to control your progression of chronic kidney disease.

**STAGE THREE:** Stage three is when there is a moderate decrease in GFR (GFR 30-59). When chronic kidney disease has advanced to Stage Three anemia and bone problems become more common. At Southwest Kidney Institute you may be referred to our ADEPT Clinic for anemia management. Our nurses and technicians are specialized in the management of anemia and work from an advanced protocol written by our physicians. Your nephrologist will also monitor labs to make sure that your bones stay healthy and strong. Your nephrologist will work with you to prevent or to treat these complications as they occur.

**STAGE FOUR:** Stage Four is marked by a severe reduction in GFR (GFR 15-29). Your nephrologist will continue to treat the complications that are associated with Chronic Kidney Disease. Your nephrologist will also make recommendations on an ideal treatment plan for you if your kidney disease continues to progress to Stage Five. These treatments, hemodialysis, peritoneal dialysis and or transplant all require advanced preparation. It is ideal and in your best interest as a patient to have a plan in place to help avoid hospitalizations. There are two forms of dialysis:

**Hemodialysis** is performed in an outpatient dialysis center utilizing a machine to filter waste products from your blood.

**Peritoneal dialysis** is performed by a patient through a catheter placed in the abdomen.

The option that is best suited to you is determined by you, your family support, your health and your nephrologist. If your choose hemodialysis, you will need to see a vascular surgeon for a procedure called *fistula*. This will prepare the vein in your arm for needle insertion for the dialysis procedure. If you choose peritoneal dialysis you will need to have a catheter places in your abdomen. Both of these procedures also need recovery time. If transplant is your ultimate choice and is appropriate for you, your nephrologist will have to refer you to a transplant facility that accepts your insurance. The transplant facility will have you undergo a lengthy pretransplant work up. Ideally a friend or family member would be able to donate a kidney to you. If an appropriate donor cannot be found, you will be placed on the UNOS waiting list for an available kidney. If you chose transplant you need to have a backup plan in case you are not able to receive a transplant prior to full kidney failure.

**STAGE FIVE:** Stage five is kidney failure also referred to as End Stage Renal Disease. Your glomerular filtration rate will be less than 15. This means that your kidneys are no longer eliminating enough waste that your body produces from your blood. This is called *uremia*. You may feel ill. Some people experience nausea and vomiting, anorexia (no appetite), edema (swelling of limbs), fatigue, and weakness. Other diseases that you have may be exacerbated by this stage of kidney disease. At this stage it is time to execute the predetermined plan of action that your nephrologist and you have decided on.

Please discuss any question or concerns that you have with your nephrologist or one of our other skilled healthcare providers. It is our desire at southwest Kidney Institute to provide you with the vest individualized care possible. We believe communication is one of the best tools available to us to assist and empower you in making appropriate well informed decisions in regards to your health.

Southwest Kidney Institute Physicians and Staff.