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## **Chronic Kidney Disease**

Your kidneys filter the wastes and excess fluids that your body doesn't need, which are then removed by your urine. Chronic kidney disease (CKD) occurs when the kidneys lose some or all of their ability to remove the waste and excess fluid from the bloodstream. Advanced CKD can cause dangerous levels of fluid, electrolytes, and wastes to build up in your body.

Our main goal is to prevent further progression of CKD. The best way to do this is to diagnose CKD early and control the underlying cause. The most common causes of CKD are diabetes and high blood pressure.

First, let's go over what normal kidney function is to help you understand. The kidney's function is to remove all the waste and excess water from the bloodstream. The kidneys also control the amount of sodium, potassium, phosphorus, calcium, and other chemicals in the body. Blood pressure and blood flow to the kidneys must be adequate in order for the kidneys to filter properly.

To diagnose CKD properly there are several tests that will be done:

- Kidney Function test (lab work and 24-hour urine collection)
- Imaging Studies (ultrasound of the kidneys called a renal ultrasound)
- eGFR configuration (estimated glomerular filtration rate) (This is determined by calculating your creatinine level (lab), age, sex and race).

Once we have determined what stage your kidneys are in we can make a plan of treatment.

### Treatment for Chronic Kidney Disease (CKD):

The first step in treatment is to determine the cause. Some underlying causes are reversible and once addressed may prevent CKD from worsening.

- 1.) At your first visit we will get your history, go over all the medications you are on, and if available, go over any labs you previously had with your primary care doctor.
- 2.) Before your next appointment we will have you complete a 24-hour urine collection that you will bring back into the office and have some labs drawn.
- 3.) You will also have a renal ultrasound (ultrasound of the kidneys), the nurse schedules this appointment and will call you with the information.
- 4.) When you come in for your follow-up appointment the provider will go over all the results of the lab and ultrasound with you.
- 5.) This is when we will talk about the stages of CKD and make a plan specifically for you.

## Stages of CKD (chronic kidney disease):

Stage of CKD	eGFR result	What it means
Stage 1	90 or higher	- Mild kidney damage - Kidneys work as well as normal
Stage 2	60-89	<ul> <li>Mild kidney damage</li> <li>Kidneys still work well</li> </ul>
Stage 3a	45-59	<ul> <li>Mild to moderate kidney damage</li> <li>Kidneys don't work as well as they should</li> </ul>
Stage 3b	30-44	<ul> <li>Moderate to severe damage</li> <li>Kidneys don't work as well as they should</li> </ul>
Stage 4	15-29	<ul> <li>Severe kidney damage</li> <li>Kidneys are close to not working at all</li> </ul>
Stage 5	less than 15	<ul> <li>Most severe kidney damage</li> <li>Kidneys are very close to not working or have stopped working (failed)</li> </ul>

# <u>There are several factors that can increase the risk of developing CKD, including but</u> <u>not limited to:</u>

- Diabetes mellitus
- High blood pressure
- Family history of kidney disease
- African-American and other ethnic minorities
- Obesity
- Smoking
- Older age
- Having protein in the urine
- Having autoimmune disease such as lupus

#### Things you can do to slow down the progression of kidney disease:

- Make healthy food choices
- Exercise
- Get enough sleep
- Quit smoking
- Limit alcohol intake