

## Kidney Disease: The Stages of Chronic Kidney Disease

The stages of chronic kidney disease are determined mostly by the estimated glomerular filtration rate. Glomerular filtration is the process by which the kidneys filter the blood, removing excess wastes and fluids. The estimated glomerular filtration rate (eGFR) is a calculation that determines how well the blood is filtered by the kidneys. It is one way to measure kidney function. Your doctor will also use a test that measures the amount of protein in your urine and the cause of your kidney disease to guide your treatment.

The estimated glomerular filtration rate is usually calculated using a formula that includes a person's age, sex, and serum creatinine levels. An eGFR under 60 mL/min/1.73 m<sup>2</sup> may indicate kidney disease. The lower the eGFR number, the worse the kidney function. This number is an estimate. It may not be a good measure of kidney health in some people, such as the very young or very old, amputees, or obese people. In some cases, eGFR may also be estimated with a 24-hour urine collection.

Chronic kidney disease is defined as either kidney damage or an eGFR of less than 60 for longer than 3 months.

### What can you do to slow kidney disease?

At all stages of chronic kidney disease, you can take steps that may help slow or stop kidney damage and help keep you healthy:

- Follow an eating plan that is good for your kidneys. A dietitian can help you make an eating plan with the right amounts of sodium, fluids, and protein.

- Get some exercise every day. Work with your doctor to design an exercise program that is right for you.
- Take your medicines as prescribed. Avoid medicines that can damage the kidneys, such as nonsteroidal anti-inflammatory drugs (NSAIDs). NSAIDs include ibuprofen and naproxen.
- Do not smoke or use other tobacco products.
- Limit your use of alcohol and avoid illegal drugs.
- Talk to your doctor about controlling your blood pressure.
- If you have diabetes, do your best to keep your blood sugar in your target range.

### When should you see a kidney specialist?

Your doctor may refer you to a kidney specialist, or nephrologist, as your kidney function gets worse (eGFR below 60 if you have diabetes, or eGFR below 30 if you do not have diabetes). A nephrologist can treat kidney disease and other conditions that may be causing it.

A nephrologist will take over most of your care if you need dialysis or a kidney transplant.

### What are the stages?

The stage of your kidney disease is based on your eGFR. The lower the eGFR number, the worse the kidney function.

Stages of chronic kidney disease

Stage	Description	eGFR	What this means to you
1	Kidney damage without symptoms	90 or above	<ul style="list-style-type: none"> <li>Your doctor will try to find the cause of your kidney disease and may begin treatment.</li> <li>Manage other health problems, such as diabetes and high blood pressure.</li> <li>See your doctor regularly to check your condition.</li> </ul>
2	Mild decline in kidney function	60-89	<ul style="list-style-type: none"> <li>Your doctor will estimate how quickly your disease is progressing.</li> <li>Manage other health problems, such as diabetes and high blood pressure.</li> <li>Continue regular monitoring.</li> </ul>
3a	Moderate decline in kidney function	45-59	<ul style="list-style-type: none"> <li>In stages 3a and 3b, your doctor may check for complications, such as anemia and bone disease, and begin treatment if needed.</li> <li>Continue monitoring.</li> </ul>
3b	Moderate to severe decline in kidney function	30-44	<ul style="list-style-type: none"> <li>In stages 3a and 3b, your doctor may check for complications, such as anemia and bone disease, and begin treatment if needed.</li> <li>Continue monitoring.</li> </ul>
4	Severe decline in kidney function	15-29	<ul style="list-style-type: none"> <li>Decide what type of treatment you want if kidney failure develops.</li> <li>Continue treatment and monitoring.</li> </ul>
5	Kidney failure	Below 15	<ul style="list-style-type: none"> <li>Start dialysis, have a kidney transplant, or choose palliative care.</li> <li>Continue to see your doctor for treatment and testing.</li> </ul>