Chronic Kidney Disease: The Basics

You've been told that you have chronic kidney disease (also known as “CKD”). What does that mean? What does it mean for your health and your life?

This handout will help answer some of the questions you might have about your diagnosis.

What are my kidneys and what do they do?

You have two kidneys, each about the size of your fist. Their main job is to filter wastes and excess water out of your blood to make urine. They also keep the body’s chemical balance, help control blood pressure, and make certain hormones.

“CKD” means that your kidneys are damaged and can’t filter blood like they should. This damage can cause wastes to build up in your body. It can also cause other problems that can harm your health.

CKD is often a "progressive" disease, which means it can get worse over time. Sometimes CKD will cause the kidneys to slowly work less effectively but they will continue to be able to do the basic functions of their job. Sometimes, CKD can lead to kidney failure. If your kidneys fail, you will need dialysis or a kidney transplant to maintain health.
The good news is there are many things you can do to keep your kidneys healthier and hopefully prevent progression to kidney failure.

Some examples of things you can do to protect your kidneys include:

- Choose foods with less salt (sodium).
- Avoid medicines that might harm your kidneys.
- Keep your blood pressure at the level set by your health care provider.
- If you have diabetes, keep your blood sugar in the recommended range.
- Take your medications as prescribed by your health care provider.
- Exercise regularly and try to maintain a healthy weight.
- If you are smoking, try to quit.

**CKD and My Health**

**How does my health care provider know I have CKD?**

Chances are, you feel normal and were surprised to hear that you have CKD. It is called a "silent" disease, because many people don’t have any symptoms until their kidneys are about to fail. The only way to know is to get your kidneys checked with blood and urine tests.

1. A blood test checks your GFR, which tells how well your kidneys are filtering. “GFR” stands for glomerular filtration rate.
2. A urine test checks for protein spilling in your urine. Albumin is a protein that can pass into the urine when the kidneys are damaged.

These two tests are often used to diagnosis CKD. The same tests are then used to monitor CKD and make sure that treatment is working and your kidney function isn’t getting worse.
What causes CKD?
Many things can cause CKD but diabetes and high blood pressure are the most common causes of CKD.

Your doctor will look at your health history and may do other tests. Ideally, your health care provider wants to know why you have CKD, so your treatment can address the cause of the CKD.

What medicines are used to treat CKD?
People with CKD often take medicines to lower blood pressure, control blood glucose, and lower blood cholesterol.

Two types of blood pressure medicines—ACE inhibitors and angiotensin receptor blockers (ARBs)—may slow CKD and delay kidney failure, even in people who don't have high blood pressure.

Many people with CKD need to take two or more medicines to control their blood pressure. They also may need to take a diuretic (water pill). The goal is to keep your blood pressure at the level set by your health care provider.

Statin medications, like Lipitor or Zocor, are also recommended for many patients with CKD to help decrease the risk of heart attack and stroke. These may be recommended even if your cholesterol numbers are normal.

Do I need to change my medicines?
Some medicines are not safe for people with CKD. Other medicines need to be taken in smaller doses. Tell your doctor or your pharmacist about all the medicines you take, including over-the-counter medicines (those you get without a prescription such as Advil or Motrin), vitamins, and supplements.
Can CKD affect my health in other ways?
People with CKD often have high blood pressure. CKD patients are at higher risk for cardiovascular disease or problems with their heart or blood vessels. They can also develop anemia (low number of red blood cells), bone disease, and are at risk for malnutrition.

What tests will help track my CKD?
The blood and urine tests used to check for kidney damage are also used to monitor CKD. You need to keep track of your test results to see how your kidneys are doing. Track your blood pressure. If you have diabetes, monitor your blood glucose and keep it in your target range. Like high blood pressure, high blood glucose can be harmful to your kidneys.

CKD: Tracking My Test Results
You are the most important person on your health care team. Know your test results and track them over time to see how your kidneys are doing. Bring this table to your health care visits and ask your provider to complete it.

<table>
<thead>
<tr>
<th>Test</th>
<th>Result/Date</th>
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<tbody>
<tr>
<td>Blood pressure</td>
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<tr>
<td><strong>Goal:</strong> Below ___ / ___</td>
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<tr>
<td>GFR</td>
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<tr>
<td><strong>Goal:</strong> Keep from going down</td>
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<td>Urine Albumin</td>
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<td><strong>Goal:</strong> The lower the better</td>
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<tr>
<td>A1C (for people with diabetes)</td>
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<td><strong>Goal:</strong> Less than 7</td>
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</tbody>
</table>
GFR — The GFR tells you how well your kidneys are filtering blood. You can’t raise your GFR. The goal is to keep your GFR from going down to prevent or delay kidney failure.

- A GFR of 60 or higher indicates your kidneys are functioning well.
- A GFR below 60 means you may have kidney disease.
- A GFR of 15 or lower may mean kidney failure.

Urine albumin — Albumin is a protein in your blood that can pass into the urine when kidneys are damaged. You can't undo kidney damage, but with treatment such as blood pressure medicines and diet changes, you may be able to lower the amount of albumin in your urine.

Blood pressure — The most important thing you can do to slow down CKD is keep your blood pressure at the level set by your health care provider. This can delay or prevent kidney failure.

A1C — A1C test is a lab test that shows your average blood glucose level over the last 3 months. For patients with diabetes, lowering your A1C closer to the normal range can help protect your kidneys.

Will I have to go on dialysis?
Some people live with CKD for years without progressing to kidney failure or having to go on dialysis. Others progress quickly to kidney failure. You may delay dialysis if you follow your provider’s advice on medicine, diet, and lifestyle changes.

If your kidneys fail, you will need dialysis or a kidney transplant to maintain health. Most people with kidney failure are treated with dialysis.
Will I be able to get a kidney transplant instead of going on dialysis?

Some people with kidney failure may be able to receive a kidney transplant. The donated kidney can come from someone you don't know who has recently died, or from a living person—a relative, spouse, or friend.

A kidney transplant isn't for everyone. You may have a condition that makes the transplant surgery dangerous or less likely to succeed. If your CKD is getting more advanced, talk with your doctor about whether you are a candidate for a transplant.

**CKD and My Lifestyle**
People with CKD can and should continue to live their lives in a normal way: working, enjoying friends and family, and staying active. They also need to make some changes as explained here.

**Do I need to change what I eat?**
What you eat may help to slow down CKD and keep your body healthier. Here are some points to keep in mind:

<table>
<thead>
<tr>
<th>Salt</th>
<th>Choose and prepare foods with less salt (sodium). Avoid using salt at the table</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fish</td>
<td>Select the right kinds and smaller amounts of protein</td>
</tr>
<tr>
<td>Food selection</td>
<td>Select foods that are healthy for your heart, like lean cuts of meat, skinless chicken, fish, fruits, vegetables, and beans</td>
</tr>
<tr>
<td>Nutrition label</td>
<td>Read the Nutrition Facts Label, especially for sodium, to help you pick the right foods and drinks</td>
</tr>
</tbody>
</table>

Your provider may refer you to a dietitian. Your dietitian will teach you how to choose foods that are easier on your kidneys. You will also learn about the nutrients that matter for CKD.
Do I need to change what I drink?

- Water — You don’t need to drink more water than usual unless you have kidney stones. Drink as much water as you normally do.
- Soda and other drinks — If you are told to limit phosphorus, choose light-colored soda (or pop), like lemon-lime, and homemade iced tea and lemonade. Dark-colored sodas, fruit punch, and some bottled and canned iced teas can have a lot of phosphorus.
- Juice — If you are told to limit potassium, drink apple, grape, or cranberry juice instead of orange juice.
- Alcohol — You may be able to drink small amounts of alcohol. Drinking too much can damage the liver, heart and brain, and cause serious health problems.

Is smoking cigarettes bad for my kidneys?

Cigarette smoking can make kidney damage worse. Take steps to quit smoking as soon as you can.

Is it safe for me to exercise?

You should talk with your doctor, but for most patients with CKD regular exercise and attempts to maintain a healthy body weight is strongly encouraged.