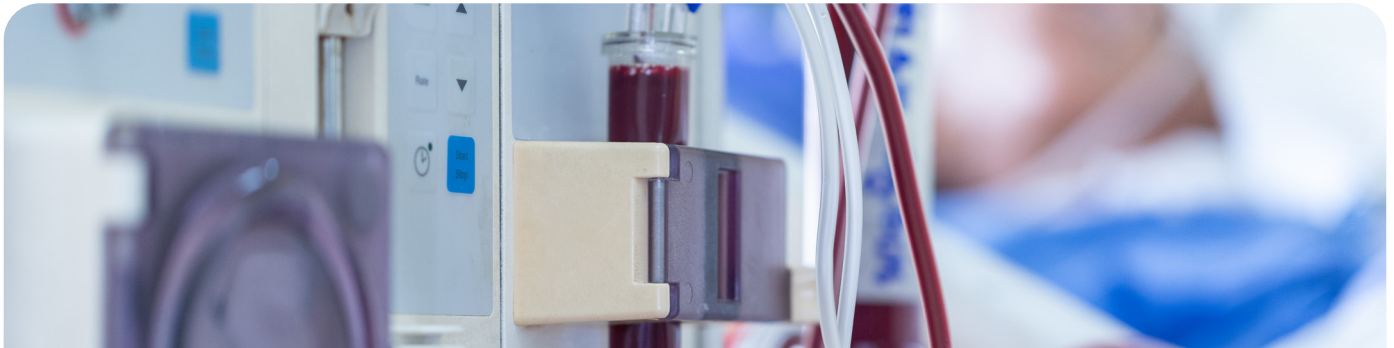




# A Guide for Patients: Chronic Kidney Disease and Dialysis Access



Chronic kidney disease (CKD) is a serious health problem and is the ninth leading cause of death in the U.S. It affects about 37 million people in the country.

When kidneys don't work properly, people may need a common treatment called hemodialysis to help them feel better. Over 500,000 people in the U.S. get hemodialysis. Having the right access for hemodialysis is key because it can make a big difference in how well someone feels and how long they live. That's why it's important for doctors to plan ahead and make sure people with CKD have the best access for hemodialysis. This helps them live better and longer.

## Symptoms

CKD, or chronic kidney disease, can cause various symptoms as the condition progresses. Common symptoms include feeling tired or weak, having trouble sleeping, changes in appetite, muscle cramps or twitches, swelling in the feet and ankles, and changes in urination frequency or color. Some people

may also experience difficulty concentrating, itching, and numbness or tingling in the hands or feet. It's essential to talk to a doctor if experiencing any of these symptoms, as early detection and treatment can help manage CKD effectively and improve quality of life.

## Causes and Risks

CKD leading to dialysis – a medical procedure that filters the blood to remove waste products and excess fluid when the kidneys are no longer able to do so – can result from various causes and risk factors. Common causes include diabetes and high blood pressure, which are the leading contributors to CKD. Other causes may include kidney infections, autoimmune diseases, genetic conditions, and certain medications.

Risk factors for developing CKD and progressing to dialysis include older age, family history of kidney disease, obesity, smoking, and a diet high in salt and processed foods. Poorly controlled diabetes and hypertension also increase the risk of CKD progression. Identifying and managing these risk factors early can help prevent or delay the need for dialysis.



## Role of a Vascular Surgeon

Vascular surgeons play a crucial role in treating CKD by managing vascular access for hemodialysis. Vascular surgeons create and maintain arteriovenous fistulas (AVFs) or grafts, which are essential for hemodialysis treatment. Vascular surgeons assess patients' vascular health, perform procedures to create access, and monitor the function of AVFs or grafts over time. Vascular surgeon expertise ensures patients have reliable access for dialysis, which is vital for treatment and the overall well-being of individuals with CKD.

## Talk to a Doctor

Discuss any symptoms like fatigue, changes in urination, or swelling in the feet with your doctor, especially if you have diabetes, high blood pressure, or a family history of kidney disease. Regularly communicate with your doctor if diagnosed with CKD to monitor your kidney health and adjust treatment plans as needed. Early discussions and proactive management can help slow CKD progression and improve overall health outcomes.

## Diagnosis

Diagnosing CKD involves evaluating kidney function through blood tests to measure creatinine and glomerular filtration rate (GFR). Urine tests may assess protein or albumin levels. Imaging tests like ultrasound or MRI can assess kidney structure, while kidney biopsy may be necessary in certain cases to determine the cause of CKD. Additionally, assessing symptoms such as

fatigue, changes in urination, or swelling can aid diagnosis. Early detection through regular check-ups is vital for effective management and prevention of complications associated with CKD.

## Treatment

Treatment for CKD aims to slow progression and manage symptoms. This includes lifestyle modifications like a healthy diet and regular exercise, controlling blood pressure and blood sugar levels, and medications to manage complications. In advanced stages, dialysis or kidney transplant may be necessary for kidney function replacement. Dialysis enables people with kidney failure to have their blood cleared of toxins. Together with their doctors, patients must consider different types of dialysis access. The most common type involves making a special connection between an artery and a vein (usually in the arm). This access, then, can then be used for the blood to be removed, cleaned, and returned to the body.

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