

## Chronic Kidney Disease

Chronic kidney disease (CKD), also known as chronic renal disease, is a condition characterized by a gradual loss of kidney function. If kidney disease worsens, elevated waste levels in the blood can cause sickness. Complications, which may develop slowly, include:

- High blood pressure, or hypertension
- Anemia (low blood count)
- Weak bones
- Poor nutritional health
- Nerve damage
- Heart and blood vessel disease



Early detection and treatment often can prevent CKD from getting worse. If kidney disease progresses, it may eventually lead to kidney failure, which requires dialysis or a kidney transplant to maintain life.

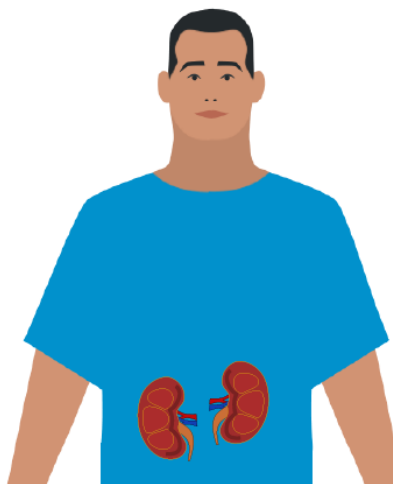
### Main Causes and Symptoms of CKD

Two-thirds of CKD cases can be ascribed to diabetes and high blood pressure, according to the National Kidney Foundation.

**Diabetes:** Unmanaged high blood sugar can lead to diabetes over time, and cause damage to many organs, including the kidneys, heart, blood vessels, nerves, and eyes.

### KIDNEY FAILURE SYMPTOMS

- Weakness, less energy
- Trouble concentrating
- Poor appetite
- Trouble sleeping
- Muscle cramping at night
- Swollen feet and ankles
- Puffiness around the eyes, especially in the morning
- Dry, itchy skin
- More frequent urination, especially at night



**High blood pressure:** Left uncontrolled or poorly controlled, high blood pressure can cause heart attacks, strokes, and CKD. In return, CKD can also cause high blood pressure.

Most people may not experience severe symptoms until their kidney disease is advanced.

Approximately 37 million American adults have CKD, and millions of others are at increased risk.

**CONTROL:** Blood pressure, Glucose

## Diagnostic Tests

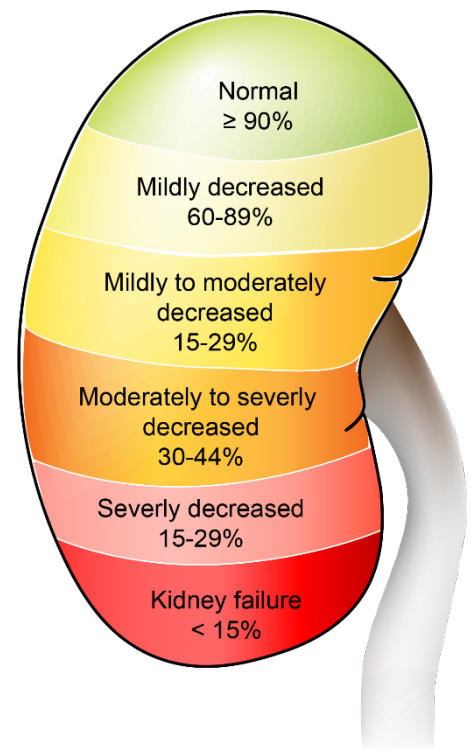
The following tests can be used to diagnose CKD:

- Albumin to creatine ratio urine test – Albumin is a protein that should not be found in urine, and its presence indicates kidney function problems.
- Blood test for creatinine – This determines if the blood contains too much creatinine, a waste product.
- Glomerular Filtration Rate (GFR) – The GFR is calculated using the results from the above tests and other factors like age and gender. The result of the GFR is the best way to measure level of kidney function and determine the kidney disease stage.
- CT scan – The CT scan images of the kidneys and urinary tract can spot any structural problems. This test helps physicians determine if the kidneys are too large or small, or have issues like a kidney stone or tumor.
- Biopsy – A biopsy checks for a specific type of kidney disease, determines the level of kidney damage, and helps plan treatment.

## CKD Stages

The ICD-10-CM classifies CKD based on severity. The severity of CKD is designated by stages 1-5, and ESRD.

Stage	Severity	GFR ml/min/ 1.73 m <sup>2</sup>	ICD 10-CM Code
1 (G1)	Mild kidney damage	≥90	N18.1
2 (G2)	Mildly decreased	60 - 89	N18.2
3		-	N18.30
3A (G3A)	Mildly to moderately decreased	45 - 59	N18.31
3B (G3B)	Moderately to severely decreased	30 - 44	N18.32
4 (G4)	Severely decreased	15 - 29	N18.4
5 (G5)	Kidney failure	<15	N18.5
ESRD	Requires dialysis	-	N18.6
Unspecified	Unspecified	-	N18.9



Assign code N18.6, End stage renal disease (ESRD) when the provider has documented ESRD. If both a stage of CKD and ESRD are documented, assign code N18.6 only.

### Example: CKD, stage 5, requiring chronic dialysis

N18.6 End stage renal disease

Z99.2 Dependence on renal dialysis

## Coding Tips

### Hypertensive CKD

Assign codes from category I12, Hypertensive chronic kidney disease, when both hypertension and a condition classifiable to category N18, chronic kidney disease, are present. Use the appropriate code from category N18 as a secondary code to identify the stage of CKD.

Do not code CKD as hypertensive if the provider indicates the CKD is not related to the hypertension.

**Example: Hypertensive CKD, CKD G4**

- I12.9 Hypertensive chronic kidney disease with stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
- N18.4 Chronic kidney disease, stage 4 (severe)

### Hypertensive Heart and CKD

Assign codes from combination category I13, Hypertensive heart and chronic kidney disease, when hypertension includes both heart and kidney involvement. If heart failure is present, assign an additional code from category I50 to identify the type of heart failure. Use the appropriate code from category N18, chronic kidney disease, as a secondary code to identify the stage of CKD.

**Example: Hypertensive heart and CKD, chronic congestive diastolic heart failure, CKD stage 3b**

- I13.0 Hypertensive heart and chronic kidney disease with heart failure and stage 1 through stage 4 chronic kidney disease, or unspecified chronic kidney disease
- N18.32 Chronic kidney disease, stage 3b
- I50.32 Chronic diastolic (congestive) heart failure

### Diabetes and CKD

The ICD-10-CM presumes a causal relationship between CKD and diabetes.

**Example: Type II diabetes mellitus with CKD stage 5**

- 11.22 Type 2 diabetes mellitus with diabetic chronic kidney disease
- N18.5 Chronic kidney disease, stage 5

### Kidney Transplant Status and CKD

Patients who have undergone kidney transplant may still have a form of CKD because the kidney transplant may not fully restore kidney function. Therefore, the presence of CKD alone does not constitute a transplant complication. Assign the appropriate N18 code for the patient's stage of CKD and code Z94.0, Kidney transplant status.

**Example: CKD stage 3b. History of kidney transplant 5 years ago, no complications**

- N18.32 Chronic kidney disease, stage 3b
- Z94.0 Kidney transplant status

## References

- [Chronic Kidney Disease \(CKD\) | National Kidney Foundation AHIMA Library](#)
- [ICD-10-CM Guidelines April 1 2023 FY23 \(CMS.gov\)](#)

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