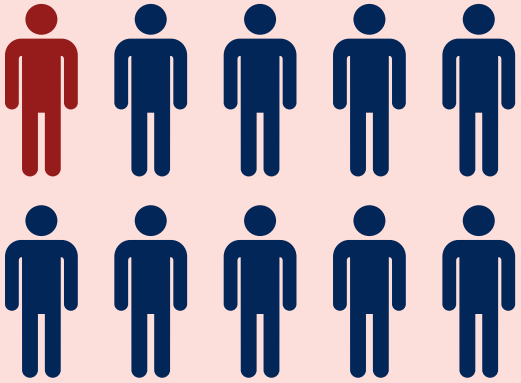
Chronic Kidney Disease in the United States

Accessible version: https://www.cdc.gov/kidney-disease/php/data-research/index.html

Chronic kidney disease (CKD) happens when the kidneys become damaged and over time may not clean the blood as well as healthy kidneys. If kidneys do not work well, waste and extra fluid build up in the body. This may lead to high blood pressure, heart disease, stroke, and early death. However, people with CKD and people at risk for CKD can take steps to protect their kidneys with the help of their health care providers. This report provides national estimates of chronic kidney disease, updated in March 2026.

CKD Is Common Among U.S. Adults



More than 1 in 10 (14%) adults aged 18 or older **(37 million people)**† have CKD.

Key Statistics†

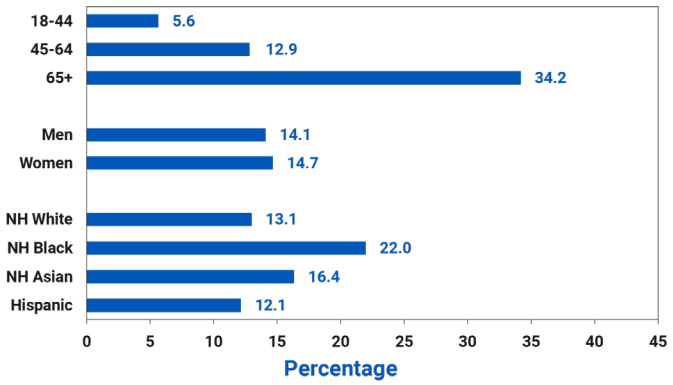
- **About 9 in 10 (87%)** adults aged 20 or older with CKD did not know they have CKD.
- **More than 1 in 10 (11%)** adults aged 18 or older with **prediabetes** were estimated to have CKD.
- **About 4 in 10 (38%)** adults aged 18 or older with **diabetes** (diagnosed or undiagnosed) were estimated to have CKD.
- **About 5 in 10 (49%)** adults aged 18 or older with **type 1 diabetes** were estimated to have CKD.
- **More than 4 in 10 (41%)** adults aged 18 or older with **type 2 diabetes** were estimated to have CKD.
- **More than 2 in 10 (21%)** adults aged 18 or older with **high blood pressure** were estimated to have CKD.

CKD by Age, Sex, and Race-Ethnicity

According to current estimates:†

- CKD was more common in people aged 65 years or older (34%) than in people aged 45–64 years (13%) or 18–44 years (6%).
- CKD was more common in non-Hispanic Black adults (22%) than in non-Hispanic White adults (13%) or Hispanic adults (12%).

Percentage of CKD Among U.S. Adults Aged 18 Years or Older, By Age, Sex, and Race-Ethnicity



CKD stages 1–4 using data from the August 2021–August 2023 National Health and Nutrition Examination Survey (NHANES) and the CKD Epidemiology Collaboration (CKD-EPI) equation without race. CKD stage 5 (that is, kidney failure) was not included. For more details on methods, see How estimates were calculated.

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES
CENTERS FOR DISEASE CONTROL AND PREVENTION

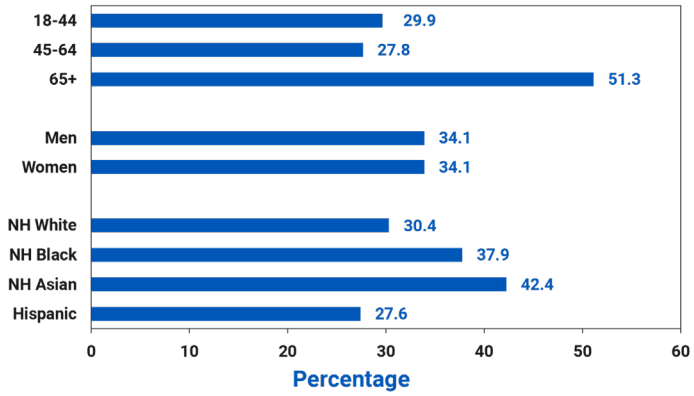
Managing blood sugar and blood pressure can help keep kidneys healthy.

CKD Among Adults With Diabetes

According to current estimates:†

- CKD was more common in people aged 65 years or older (51%) than in people aged 18–44 years (30%) or 45–64 years (28%).

Percentage of CKD Among U.S. Adults With Diabetes Aged 18 Years or Older, By Age, Sex, and Race-Ethnicity



CKD stages 1–4 using data from the August 2021–August 2023 NHANES and the CKD-EPI equation without race. CKD stage 5 (that is, kidney failure) was not included. For more details on methods, see How estimates were calculated.

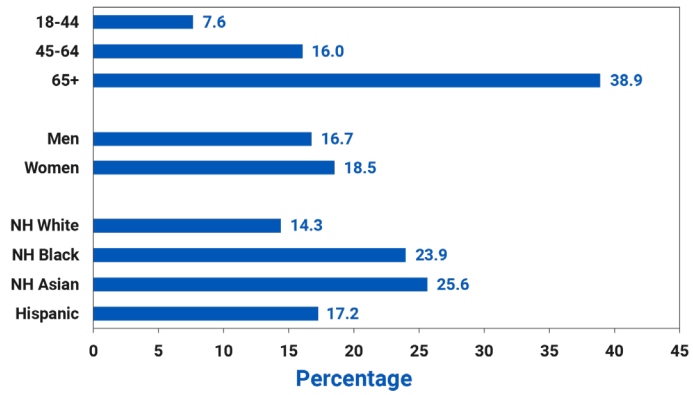
Preventing type 2 diabetes can help prevent CKD and kidney failure. Talk to a kidney doctor about treatment options if CKD is severe and kidney function is very low.

CKD Among Adults With High Blood Pressure

According to current estimates:†

- CKD was more common in people aged 65 years or older (39%) than in people aged 45–64 years (16%) or 18–44 years (8%).
- CKD was more common in non-Hispanic Asian adults (26%) and non-Hispanic Black adults (24%) than in non-Hispanic White adults (14%).

Percentage of CKD Among U.S. Adults With High Blood Pressure Aged 18 Years or Older, By Age, Sex, and Race-Ethnicity



CKD stages 1–4 using data from the August 2021–August 2023 NHANES and the CKD-EPI equation without race. CKD stage 5 (that is, kidney failure) was not included. For more details on methods, see How estimates were calculated.

CKD-Related Health Problems

As CKD worsens over time, related health problems become more likely. However, CKD-related health problems can improve with treatment.

Heart Disease and Stroke

- Having CKD increases the chances of having heart disease and stroke.
- Managing high blood pressure, blood sugar, and cholesterol levels—all factors that increase the risk for heart disease and stroke—is very important for people with CKD.

Early Death

Adults with CKD are at a high risk of dying earlier than adults of similar age without CKD.

Health Problems Due to Low Kidney Function

- Anemia, or having low red blood cell count or hemoglobin, can cause fatigue and weakness
- Extra fluid in the body, which can cause high blood pressure, swelling in the legs, or shortness of breath
- A weakened immune system, which makes it easier to develop infections
- Loss of appetite or nausea
- Decreased sexual response
- Confusion, problems with memory and thinking, or depression
- Low calcium levels and high phosphorus levels in the blood, which can cause bone disease and heart disease
- High potassium levels in the blood, which can cause an irregular or abnormal heartbeat and lead to death

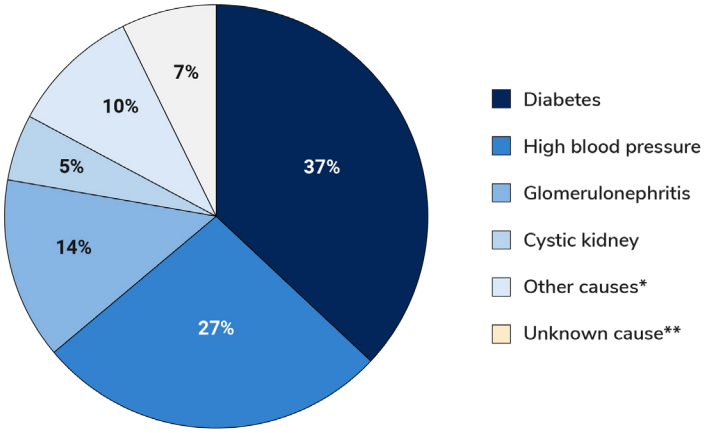
Kidney Failure

Kidney failure happens when kidney damage is severe and kidney function is very low. Dialysis or a kidney transplant is then needed for survival. Kidney failure treated with dialysis or a kidney transplant is called **end-stage kidney disease (ESKD)**.

Facts About ESKD in 2023

- About 131,564 people in the United States started treatment for ESKD.
- About 831,000 people in the United States, or 2 in every 1,000 people, were living with ESKD: 67% were on dialysis and 33% were living with a kidney transplant.
- Non-Hispanic Black persons have four times the incidence rate of ESKD than non-Hispanic White persons.
- Hispanic persons have twice the incidence rate of ESKD than non-Hispanic White persons.
- Among adults aged 18 years and older in the United States, diabetes and high blood pressure remain the main causes of ESKD.
- Among children and adolescents younger than 18 years in the United States, cystic kidney disease and glomerulonephritis are the main causes of ESKD.

Reported Causes of End-Stage Kidney Disease in the United States



N=831,192 (all ages, 2023). Source: United States Renal Data System 2025 Annual Data Report. *Includes other urologic and other causes. **Includes unknown and missing causes.

Managing CKD

- Monitor and manage blood sugar and blood pressure.
- Make lifestyle changes (e.g., healthy eating, physical activity) to prevent more kidney damage. Meet with a dietitian to create a kidney-healthy eating plan that is low in salt and fat and has the right amount and sources of protein. As CKD gets worse, the plan may also include limiting phosphorus and potassium.
- Use medicines as directed to slow the decline in kidney function.
- Stop smoking or do not start smoking.
- Avoid exposures that can harm the kidneys or cause kidney function to suddenly get worse:
  - Certain medicines:
    - Over-the-counter pain medicines like ibuprofen and naproxen, which are also called non-steroidal anti-inflammatory drugs.
    - Some antibiotics.
  - Certain herbal supplements.
  - Excessive alcohol intake.
- Check with a doctor about other behaviors or substances that can harm the kidneys or about special precautions to take during medical tests or procedures, such as imaging studies or colonoscopies.

People with diabetes, high blood pressure, or CKD may need to talk to their doctor about how to protect their kidneys.

Acknowledgments

The following organizations collaborated in developing and reviewing this fact sheet. Check their websites for CKD online resources for patients or providers:

National Institute of Diabetes and Digestive and Kidney Diseases of the National Institutes of Health

US Department of War

United States Renal Data System

American Association of Kidney Patients

American Society of Nephrology

National Kidney Foundation

University of Michigan, Division of Nephrology, Department of Internal Medicine, and University of Michigan Kidney Epidemiology and Cost Center

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[1]**How estimates were calculated:** Percentage of CKD stages 1–4 among U.S. adults aged 18 years or older using data from the August 2021–August 2023 National Health and Nutrition Examination Survey (NHANES) and the CKD Epidemiology Collaboration (CKD-EPI) equation without race. CKD stage 5 (that is, kidney failure) was not included due to the small sample size. The estimates were based on a single measure of urinary albumin-to-creatinine ratio and serum creatinine; they do not account for persistence of albuminuria or elevated creatinine as indicated by the Kidney Disease Improving Global Outcomes recommendations. Thus, CKD in this report might be overestimated. Data on awareness were only available for individuals aged 20 years or older. Estimates by sex and race-ethnicity were age standardized using the 2023 U.S. population (Vintage July 2023); the overall percentage is not age standardized. To estimate the number of adults with CKD, the age, sex, and race-ethnicity subgroup-specific weighted percentages from three-way cross-tabulations were applied to the corresponding 2023 U.S. population (Vintage July 2023). The subgroup-specific numbers were summed to obtain the estimated number of adults with CKD. High blood pressure was defined by self-reported current use of prescription medicine for high blood pressure or measured blood pressure ≥130/80 mmHg. Diabetes (diagnosed or undiagnosed) was defined as either self-reported diabetes (i.e., a person having been told by a doctor or health professional that they had diabetes; hereafter referred to as diagnosed diabetes) or meeting laboratory criteria for diabetes (undiagnosed diabetes), defined as fasting plasma glucose ≥126 mg/dL or A1C level ≥6.5%. Prediabetes was defined as fasting plasma glucose of 100 to 125 mg/dL or an A1C level of 5.7% to 6.4%. Among adults with diagnosed diabetes, type 1 diabetes was defined as current insulin use with initiation of insulin therapy within 1 year of when first told they had diabetes. Type 2 diabetes was defined as diagnosed diabetes not meeting the criteria for type 1 diabetes. People with missing data needed to define CKD stage were excluded. For analyses using NHANES data, appropriate sampling weights were used so that estimates were representative of the total U.S. adult population.