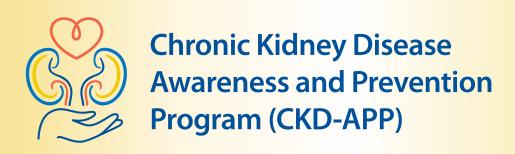


Quality Innovation Network Quality Improvement Organizations
CENTERS FOR MEDICARE & MEDICAID SERVICES
IQUALITY IMPROVEMENT & INNOVATION GROUP

# **Understanding Chronic Kidney Disease**

# A Conversation Starter for Patients and Their Healthcare Team



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C K	TAGES OF CHRONIC CIDNEY DISEASE	STAGE 1  Normal  Kidney Function	STAGE 2  Mild Loss of Kidney Function		STAGE 3A  Mild to Moderate  Loss of  Kidney Function	
K	idney Damage	0-10% Damage 11-40%		Damage	41–55% Damage	
	Glomerular Filtration Rate (GFR) Blood Test	90 or Higher	89 to	o 60	59 to 45	
TESTS	Albumin to Creatinine Ratio (ACR) Urine Test	Normal to Mildly Increased Amounts of Protein in Urine - ACR: < 30 mg/g		Urine - ACR: 3	Moderately Increased Amounts of Protein in Urine - ACR: 30–300 mg/g If three months or more, may indicate CKD.	
	ACR Range	Normal Range —		Moderate Range —		
S	ymptoms	STAGE 1  Symptoms you have may or may not be related to chronic kidney disease.  You won't know unless you have both the GFR and ACR tests done.	STAGE 2  Symptoms you have may or may not be related to chronic kidney disease. You won't know unless you have both the GFR and ACR tests done.  STAGE 2  Complications you have may or may not be related to chronic kidney disease. You won't know unless you have both the GFR and ACR tests done.		• Changes in urination • Blood in urine • Protein in urine • Swelling of hands, face, feet, ankles • Fatigue • Sleeping problems	
C	omplications	Complications you have may or may not be related to chronic kidney disease.			STAGES 3A, 3B, 4, 5  ANEMIA  HIGH POTASSIUM (Hyperkalemia)	
		You won't know unless you have both the GFR and ACR tests done.			HIGH PHOSPHORUS & BONE DISEASE (Hyperphosphatemia)	
					HEART DISEASE	
					FLUID ACCUMULATION	

Self-management Tips... Eat healthy and keep blood pressure and blood sugar under control.

	STAGE 3B  Moderate to Severe  Loss of  Kidney Function  60–70% Damage		STAGE 4	STAGE 5  Kidney Failure  More than 85% Damage
			Severe Loss of Kidney Function	
			71–85% Damage	
	44 to 30		29 to 15	Less than 15
		•	sed Amounts of e - ACR: > 300 mg/g	
		Severe Rang	је <del></del>	<b>→</b>
	• Changes in urinat • Blood in urine • Protein in urine • Swelling of hands face, feet, ankles	ion	STAGE 4  SAME AS STAGES 3A AND 3B, PLUS  • Unpleasant breath • Nausea/vomiting	STAGE 5 SAME AS STAGE 4, PLUS  • Headaches • Changes in skin • Chronic Itching

- Kidneys don't make enough blood cells to supply enough oxygen to the body.
- Kidneys can't keep the right amount of minerals like potassium, in the body.
- Kidneys can't remove wastes, like extra potassium, from the blood.
- Kidneys can't keep the right amount of minerals in the body.
- Kidneys can't activate vitamin D.
- Kidneys can't keep the amount of calcium and phosphorus balanced; therefore, bones can get weak.
- Damage to kidney blood vessels makes it hard for the kidneys to get enough blood and oxygen.
- CKD makes it hard for the kidneys to release hormones that regulate blood pressure.
- The heart has to work harder to pump enough blood for the kidneys and body.
- Kidneys can't keep the right amount of water in the body. Feet, ankles, hands and face can swell.
- Too much fluid can lead to heart and breathing problems. More blood volume can increase blood pressure.

Work with a Nephrologist and Registered Dietitian Nutritionist (RDN) to support your kidney health.

# Questions to Ask Your Healthcare Team

# **Primary Care Doctor:**

- What are my risk factors for chronic kidney disease (CKD)?
- What are the most recent results of my GFR (Glomerular Filtration Rate) blood test <u>and</u>
   ACR (Albumin-to-Creatinine Ratio) urine test?
- Should I be referred to a Registered Dietitian Nutritionist (RDN) or Certified Diabetes Care and Education Specialist (CDCES)?
- Should I make an appointment with a Nephrologist?
  The National Institute for Health and Care Excellence
  (NICE) 2021 guideline suggests the use of kidney failure risk
  equation (KFRE) to estimate the 5-year risk of needing renal
  replacement therapy. You should see a nephrologist if your
  risk score is 5% or higher.
- Review your Kidney Failure Risk Calculator: <u>https://kidneyfailurerisk.com</u> results with your doctor.



## **Pharmacist:**

 How can I prevent experiencing adverse drug events while taking my current medications?

# Registered Dietitian Nutritionist or Certified Diabetes Care and Education Specialist:

- How do my blood and urine test results influence my dietary needs?
- How can I use food to help manage my medical conditions and prevent health complications?
- What can I do to improve my physical activity level?

## **Social Worker:**

- Can you help me coordinate my kidney care services, follow-up appointments, and referrals to specialists?
- Can you connect me to social service resources and support programs available in my community?

# **Counselor, Psychologist, or Psychiatrist:**

- How do my emotions affect my physical symptoms?
- How can chronic kidney disease affect my emotional and mental health?

# If you are referred to a Nephrologist, you can ask these questions:

- Do I have chronic kidney disease (CKD)?
   If yes, what stage of CKD do I have?
- What are my treatment options?
- Should I be referred to a Renal Dietitian Nutritionist?
- How can I start preparing for a kidney transplant (especially if my GFR is 20 or below)?
- What options are available to me for at-home and in-center hemodialysis or peritoneal dialysis treatment?

# My notes and next steps are: