

Let's Talk About Diabetes and Kidney Health Ready – Set – Test



Approximately **1 in 3** adults with diabetes may have chronic kidney disease.¹



African Americans, American Indians and Hispanics/Latinos develop diabetes, kidney disease and kidney failure at a higher rate than Caucasians.²

Diabetes Increases Risk for Kidney Disease

Diabetes is prevalent in 10% of U.S. adults (34 million people) and is a leading cause of chronic kidney disease (CKD).³ Although CKD results in progressive loss of kidney function, it is often asymptomatic until the late stages of the disease;¹ 90% of adults with CKD are unaware they have it. CKD increases the risks of heart disease, stroke and early death and can lead to kidney failure.⁴ Because early diagnosis and treatment can prevent or delay progression of CKD, ongoing monitoring of kidney health is crucial for people with diabetes.

Assessing Kidney Health

Clinical practice guidelines from the American Diabetes Association and the National Kidney Foundation (NKF) recommend screening patients with diabetes for kidney disease every year using estimated Glomerular Filtration Rate (eGFR) and urine Albumin-to-Creatinine Ratio (uACR). Patients with diabetes can have changes in eGFR or in uACR, or in both, so it is important to track both.^{6,7}

Kidney damage is assessed using uACR based on a spot urine sample, recommended by guidelines because it is unaffected by variation in urine concentration. Other tests for albumin, such as a dipstick, are not recommended because they are less sensitive and do not detect lower uACR levels.⁸

Kidney function is assessed using eGFR based on the patient's serum creatinine level, age, sex and race, but clinicians are currently reevaluating the use of race in calculating kidney function. The NKF-ASN (American Society of Nephrology) Task Force on Reassessing the Use of Race in Diagnosing Kidney Disease is working toward a national solution to eGFR reporting (a final report is expected in 2021).⁹

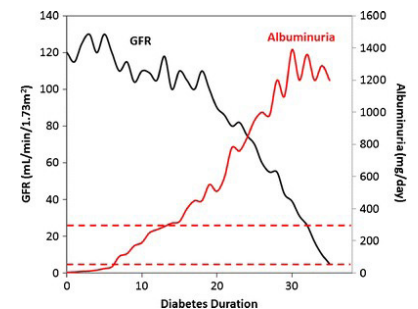
Together, these two tests provide key information regarding kidney health, including determining the stage of CKD and the risk of progression.

Two Tests for Kidney Health

eGFR	Blood test to assess kidney function	serum creatinine (mg/dL) with equation (mL/min/1.73m ²)
	Urine test to assess kidney damage	urine albumin (mg/dL) urine creatinine (g/dL)

In 2020, laboratories collaborated to create a standardized [Kidney Profile](#) that bundles these components in one request.⁵

Elevated uACR is often the earliest sign of CKD



Rising uACR (≥ 30 mg/g) detection occurs about 10 years before a detectable decline in eGFR and thus is an early indicator of kidney disease in patients with diabetes.¹⁰

Diabetes Performance Measure Incorporates Both Kidney Tests

Evidence shows that contrary to clinical guidance, fewer than half of people with diabetes receive an annual kidney assessment that includes both eGFR and uACR.¹¹ [Kidney Health Evaluation for Patients With Diabetes \(KED\)](#), addresses this gap.¹² KED is a new HEDIS^{®13} measure in its first year of implementation, with public reporting of results expected in 2022. The Centers for Medicare & Medicaid Services will report KED on its display page for 2022 Star Ratings and will consider adding it to Star Ratings in the future.¹⁴

Interpreting Test Results

The KDIGO Heat Map is a tool for staging, risk stratifying and monitoring kidney disease.¹⁵ CKD is defined by kidney damage and/or abnormal kidney function over a 3-month period. Because patients with diabetes are at increased risk for CKD, they should be tested at least every year to assess kidney health. Patients with eGFR <60 and/or uACR ≥30 mg/g should be tested every year to monitor CKD progression and guide treatment.

As shown in the Heat Map, for each level of eGFR, the uACR result determines the risk of CKD progression. For example, a patient with eGFR 50 (CKD stage 3a) and uACR <30 mg/g should be monitored once a year; they should be monitored twice a year if they have uACR 30–300 mg/g. A patient with uACR >300 mg/g should be monitored three times a year and considered for referral to nephrology services.

Test results are used to diagnose and code a patients' CKD stage and are often secondary to a code for the underlying cause, such as diabetes or hypertension. Test results can also be used to educate patients about kidney disease and the elevated risk for those with diabetes. Educational resources to support conversations, including videos addressing the risk of kidney disease and handouts explaining kidney test results, are available from the [National Institute of Diabetes and Digestive and Kidney Diseases](#).¹⁶

KDIGO Heat Map

Risk of progression by intensity of coloring + Guide to frequency of monitoring (number of times per year) + Referral decision making by GFR and albuminuria category				Persistent albuminuria categories, Description and range		
				A1	A2	A3
				Normal to mildly increased	Moderately increased	Severely increased
				<30 mg/g <3 mg/mmol	30-300 mg/g 3-30 mg/mmol	>300 mg/g >30 mg/mmol
GFR categories (ml/min/1.73 m ²), Description and range	G1	Normal or high	≥90	1 if CKD	1 Monitor	2 Refer
	G2	Mildly decreased	60-89	1 if CKD	1 Monitor	Refer
	G3a	Mildly to moderately decreased	45-59	1 Monitor	2 Monitor	3 Refer
	G3b	Moderately to severely decreased	30-44	2 Monitor	3 Monitor	3 Refer
	G4	Severely decreased	15-29	3 Refer	3 Refer	4+ Refer
	G5	Kidney failure	<15	4+ Refer	4+ Refer	4+ Refer

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New HEDIS Measure: Kidney Health Evaluation for Patients with Diabetes

NUMERATOR: Members who received an annual kidney health evaluation, including both eGFR and uACR

DENOMINATOR: Members 18–85 years of age with diabetes (type 1 and type 2)

ICD-10-CM Codes for CKD Stages¹⁷

DIABETES WITH CKD

Type 1 (E10.22) or Type 2 (E11.22)

Stage 1 (G1): N18.1
Stage 2 (G2): N18.2
Stage 3 (G3): N18.3
Stage 4 (G4): N18.4
Stage 5 (G5): N18.5

Monitoring and Managing Kidney Disease

Primary care practices play a key role in treating kidney disease through managing risk factors such as hypertension or hyperglycemia, prescribing medications as needed and encouraging a healthy lifestyle. Primary care clinicians also play a pivotal role in determining when to refer patients with kidney disease to nephrologists. Following KDIGO Heat Map guidance for referrals, which is based on eGFR and uACR levels, has proven to reduce hospitalizations and costs of care for people with CKD.¹⁸

Why Code CKD Stage?

Complete coding of CKD improves:

- Care coordination
- Care planning
- Inclusion in patient registries
- Population management
- Risk adjustment and reimbursement

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