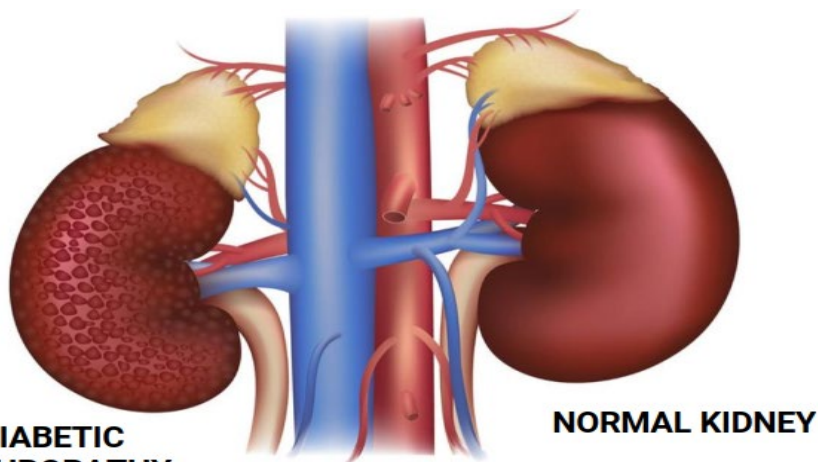


Type 2 Diabetes & Chronic Kidney Disease



DIABETIC NEPHROPATHY

NORMAL KIDNEY

What is Chronic Kidney Disease (CKD)?

CKD refers to kidney dysfunction or damage for over 3 months. It can lead to many complications, such as high blood pressure, anemia, and hyperlipidemia. Patients with diabetes have a high risk of developing CKD, which physicians classify as diabetic kidney disease (DKD), aka diabetic nephropathy.

Who is Affected by CKD?

- 45% of dialysis patients suffer from CKD due to diabetes
- 23% of people with diabetes have kidney disease

Goals for Managing CKD

- For patients under 65 years old with CKD and on dialysis, a hemoglobin A1c of <7.0% is recommended. If over 65 years old, aim for <8.0%
- To reduce the condition of anemia, the target hemoglobin value is 11-12 g/dL
- For patients with stage 5 CKD, the target serum phosphorus value is <5.5 mg/dL, and for those with stage 3-4 CKD, the target value is <4.6 mg/dL

Prevention and Treatment

- Limit foods high in potassium e.g., fruits, potatoes and tomatoes
- Limit foods high in sodium and phosphorus, e.g., nuts, beans dairy, cola, processed foods
- Reduce protein intake. Avoid red meats, replace with chicken or fish
- Take blood tests and discuss results with your physician for early detection and treatment

Glomerular Filtration Rate (GFR) and Albuminuria

The GFR test and albuminuria test both measure your level of kidney function and determines your stage of CKD. The albuminuria test checks for albumin level in the urine.

		Albuminuria categories		
		A1 <30 mg/g <3 mg/mmol	A2 30-299 mg/g 3-29 mg/mmol	A3 ≥300 mg/g ≥30 mg/mmol
GFR stages (range in mL/min per 1.73 ²)	Stage 1 (≥90)	Low risk	Moderate risk	High risk
	Stage 2 (60-89)	Low risk	Moderate risk	High risk
	Stage 3a (45-59)	Moderate risk	High risk	Very high risk
	Stage 3b (30-44)	High risk	Very high risk	Highest risk
	Stage 4 (15-29)	Very high risk	Highest risk	Highest risk
	Stage 5 (<15)	Highest risk	Highest risk	Highest risk