

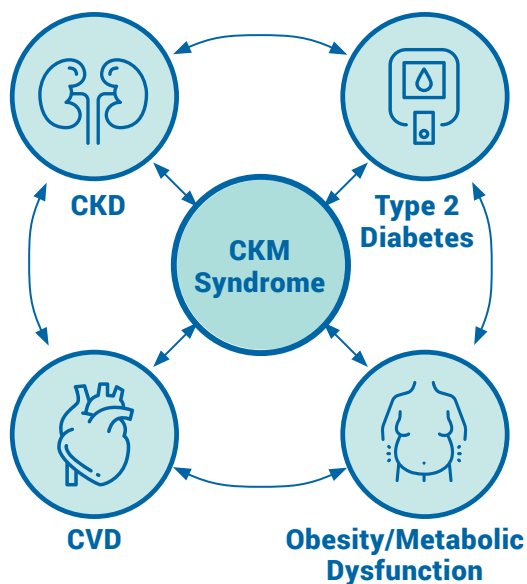
Cardiovascular-Kidney-Metabolic (CKM) Syndrome:

RECOGNIZING RISK AND IMPROVING OUTCOMES

WHAT IS CKM SYNDROME?

CKM syndrome describes the complex and interconnected relationship among cardiovascular disease (CVD), chronic kidney disease (CKD), type 2 diabetes, obesity, and metabolic dysfunction.

CARDIOVASCULAR, KIDNEY, AND METABOLIC HEALTH ARE DEEPLY INTERCONNECTED



These interconnected conditions share common risk factors, frequently occur together, and can worsen one another over time.

THE CKM SYNDROME CONTINUUM

CKM syndrome progresses through five stages:

Stage 0: No known CKM risk factors

Stage 1: Overweight or obesity

Stage 2: Diabetes or prediabetes, high blood pressure, high triglycerides, CKD

Stage 3: CKD (albuminuria and/or reduced eGFR), subclinical CVD, or high predicted atherosclerotic cardiovascular disease (ASCVD) risk

Stage 4: Clinical CVD with CKM risk factors

As patients progress through the stages, the risk of ASCVD, heart failure, CKD progression, and premature mortality increases.

Progression is not inevitable. Disease progression can be slowed or stabilized, and some patients in the earlier stages may improve enough to return to a lower CKM stage.

CKD SCREENING AND CKM RISK ASSESSMENT

CKD is a major cardiovascular risk factor and often remains asymptomatic until advanced stages; 90% of people with CKD don't know they have it.

CKD screening should be incorporated into routine care for all at-risk adults and children.



Two standard laboratory tests are recommended:

- **eGFR: Assesses kidney function**
- **uACR: Detects kidney damage**

Routine screening with both eGFR and uACR improves detection of asymptomatic and unrecognized CKD, enabling earlier risk stratification and intervention to reduce cardiovascular risk, preserve kidney function, and slow CKM progression.

MANAGING CKM SYNDROME

Early recognition of CKM syndrome creates opportunities to implement guideline-directed therapies that slow disease progression.

Treatment should be individualized by CKM syndrome stage, kidney function, diabetes status, and the presence of ASCVD or heart failure, while targeting established treatment goals for:

- Blood pressure control
- Glycemic management (A1C)
- LDL cholesterol reduction
- Weight and metabolic risk management
- Kidney- and cardioprotective therapies, when appropriate



Guideline-Directed Treatments for CKM Syndrome

- ACE inhibitors or ARBs
- SGLT2 inhibitors
- GLP-1 receptor agonists
- Statins
- Nonsteroidal mineralcorticoid receptor antagonist



Cross-specialty collaboration can support comprehensive risk assessment, timely implementation of evidence-based therapies, and ongoing management across the CKM syndrome continuum.

LEARN MORE ABOUT CKM SYNDROME

[Download our blood pressure and kidney disease fact sheet](#)



[Download our kidney disease prevention guide](#)



[Explore our resources for healthcare professionals](#)

