

MAY 2024 – CAPSULE 44

# Cardiovascular-Kidney-Metabolic (CKM) Syndrome: Definition and Staging

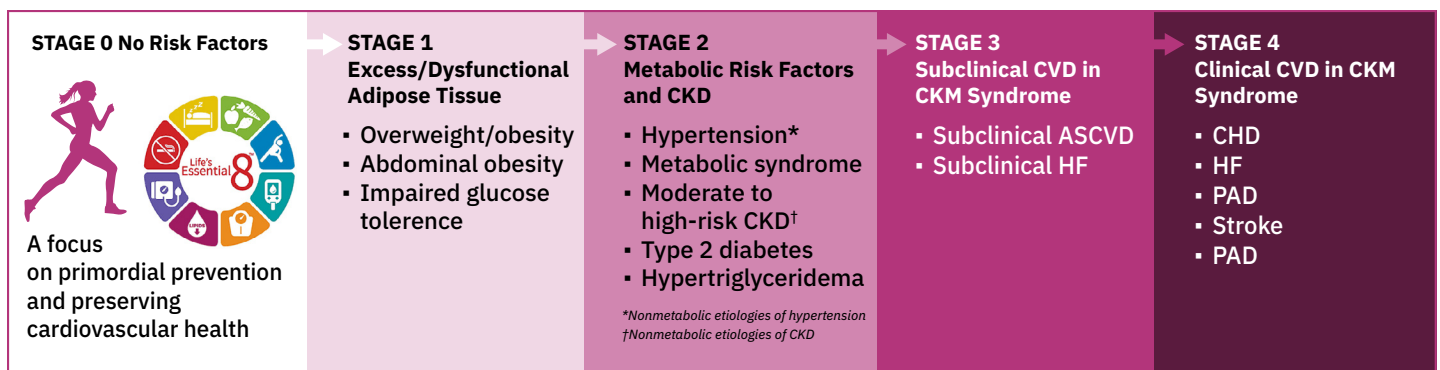
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**CAPSULE**

Cardiovascular-kidney-metabolic (CKM) syndrome is a systemic health disorder that impacts patients with cardiovascular risk factors, chronic kidney disease, type 2 diabetes, and obesity.<sup>1</sup> CKM syndrome affects nearly all the organs in the body and has a very powerful impact on risk for heart disease.<sup>2</sup> The American Heart Association recently provided new guidance that helps define, assess, and treat CKM syndrome to improve the cardiovascular health of millions of individuals.<sup>1</sup>

There are five stages of CKM (stages 0 through 4, Figure 1).<sup>1</sup> CKM syndrome stages can progress (get worse) or regress (get better) depending on prevention and treatment interventions. Using CKM stages may help doctors and patients recognize poor CKM health earlier and make changes to health plans to prevent or treat CKM.

**Figure 1. Stages of CKM Syndrome**



Afibr = atrial fibrillation; ASCVD = atherosclerotic cardiovascular disease; CHD = coronary heart disease; CKD = chronic kidney disease; CKM = cardiovascular-kidney-metabolic; CVD = cardiovascular disease; HF = heart failure; KDIGO = Kidney Disease Improving Global Outcomes; PAD = peripheral artery disease.

Adapted from Cardiovascular-kidney-metabolic health: a presidential advisory from the American Heart Association.<sup>1</sup>

**Risk equivalents of subclinical CVD in CKM Stage 3:**

- Very high-risk CKD (G stage 4 and 5 CKD or by KDIGO heat map)
- High predicated risk for CVD using risk calculator

## Approach to Prevention and Treatment of CKM Syndrome

Optimal CKM health can be achieved through early diagnosis, intervention, and prioritization of lifestyle changes.<sup>3</sup>

For more information, access Cardi-OH's **expanded resource** or read the full **Presidential Advisory** on CKM Syndrome and the accompanying **Scientific Synopsis**.

### References

- Ndumele CE, Rangaswami J, Chow SL, et al. Cardiovascular-kidney-metabolic health: a presidential advisory from the American Heart Association. *Circulation*. 2023;148(20):1606-1635. doi:10.1161/CIR.0000000000001184.
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- Powell-Wiley TM, Poirier P, Burke LE, et al. Obesity and cardiovascular disease: a scientific statement from the American Heart Association. *Circulation*. 2021;143(21):e984-e1010. doi:10.1161/CIR.0000000000000973.

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