# Definition & Staging of CKM Syndrome

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#### **Disclosures**

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# **Definition of CKM Syndrome**

Cardiovascular-kidney-Metabolic (CKM) syndrome is a health disorder due to connections among heart disease, kidney disease, diabetes and obesity leading to poor health outcomes.

CKM syndrome includes both individuals at risk for CVD, and individuals with existing CVD





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#### **CKM Syndrome: Multisystem Consequences**



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Ndumele CE, Neeland IJ, Tuttle KR, et al. Circulation. 2023;148(20):1636-1664.

#### Strong epidemiological overlap of Cardiovascular, Metabolic, and Kidney disorders



Ostrominski JW, Arnold SV, Butler J, ...Vaduganathan M.et al., 1999-2020. JAMA Cardiol. 2023 1;8(11):1050-1060.

Stage 0: No Risk Factors

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Ndumele CE, Rangaswami J, Chow SL, et al. Circulation. 2023;148(20):1606-1635.

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# **Rationale for CKM Syndrome Staging**

Reflects the pathophysiology of underlying CKM progression Importance of early detection of underrecognized clinical conditions Each stage to represent a higher level of absolute clinical risk

Principal focus on cardiovascular disease

The primary cause of premature mortality in relation to poor CKMH is CVD. Additional focus on kidney failure

Each stage represents an opportunity for preventive intervention The goal is to prevent the progression to the next stage



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