

Building the Treatment Roadmap

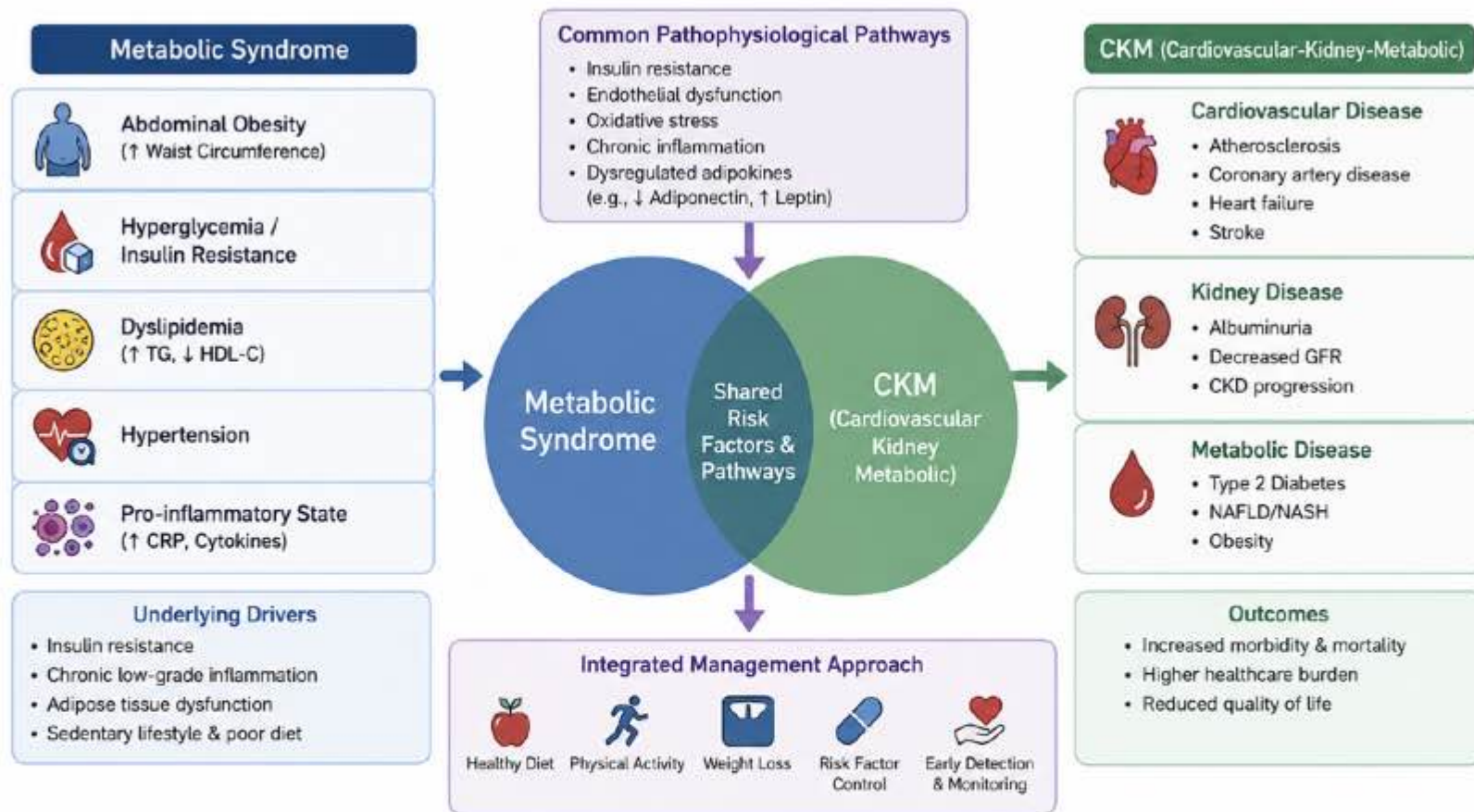
Dr. Saeid Kalbasi

board-certified endocrinologist



The Link Between CKM and Metabolic Syndrome

A Shared Pathophysiology of Cardiometabolic Risk



Addressing Metabolic Syndrome = A Key Step to Prevent and Manage CKM

Breaking the cycle, back to life

Obesity / insulin resistance



Metabolic syndrome



Inflammation + endothelial dysfunction + hypertension + dyslipidemia



Kidney damage / CKD ↔ worsening metabolic dysfunction



Atherosclerosis, heart failure, coronary disease, atrial fibrillation



Cardiovascular disease

CLINICAL PRACTICE GUIDELINE

2026 AHA/ACC/ADA/ASN Guideline for the Prevention, Detection, Evaluation, and Management of Cardiovascular-Kidney-Metabolic Syndrome

A Report of the American College of Cardiology/American Heart Association
Joint Committee on Clinical Practice Guidelines

Developed in Collaboration With and Endorsed by the American Diabetes Association,
the Obesity Association, a division of the American Diabetes Association,
and the American Society of Nephrology

Case no. 1: BMI below 27 with Food craving, visceral obesity (majority of people)

Where Does This Patient Fit in the CKM Fram

Patient profile: BMI <27, Food craving, Visceral obesity

Key Considerations



BMI <27
Normal or slightly overweight by BMI, but does not rule out metabolic risk.



Food craving
May reflect dysregulated reward pathways and insulin resistance.

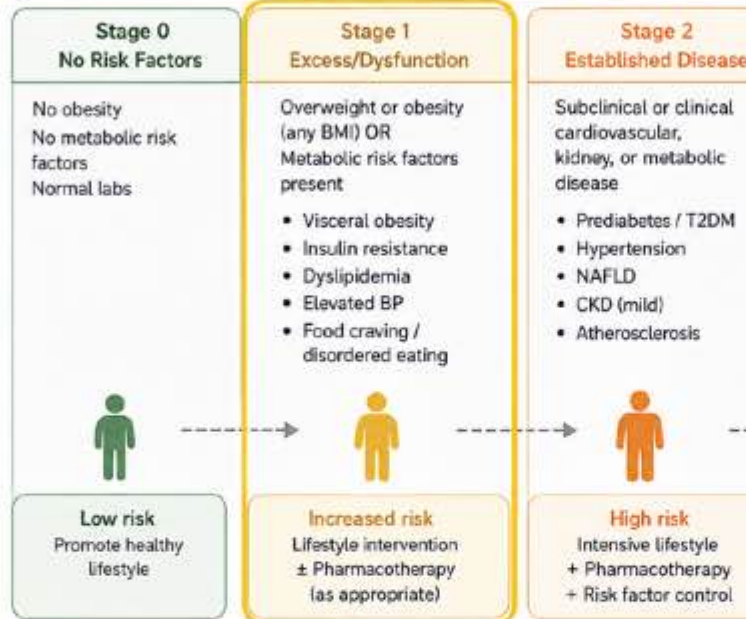


Visceral obesity
Central/visceral fat is a key driver of cardiometabolic risk, even with normal BMI.

Bottom line

This patient fits best in **CKM Stage 1 (Excess/Dysfunction)** with increased cardiometabolic risk and should be actively managed to prevent progression.

CKM Staging (Cardiovascular–Kidney–Metabolic)



This patient (BMI <27, food craving, visceral obesity) most likely fits in CKM Stage 1 due to presence of metabolic dysfunction (visceral obesity, cravings suggest insulin resistance) despite normal BMI.



Goal: Prevent progression to Stage 2 by addressing visceral fat, improving insulin sensitivity, managing cravings, and controlling other risk factors early.

5.4.3. Obesity Pharmacotherapy for Weight Management in CKM Syndrome Stage 1

Recommendations for Obesity Pharmacotherapy for Weight Management in CKM Stage 1

Referenced studies that support recommendations are summarized in the [Evidence Table](#).

COR	LOE	Recommendations
2a	A	1. In adults with CKM stage 1 (ie, overweight/obesity [BMI ≥27 kg/m ²] without other metabolic risk factors, CKD, or subclinical/clinical CVD), the addition of GLP-1–based therapy with proven benefit to structured lifestyle intervention can be beneficial in promoting weight loss and improving glycemia and CKM risk profiles. ^{1–3}
Economic Value:* Not Cost-Effective (High Level of Certainty)		2. In adults with CKM stage 1, the addition of GLP-1–based therapy with proven benefit to a structured lifestyle intervention is projected to not be cost effective at 2025 US prices.
2b	A	3. In adults with CKM stage 1, non-GLP-1–based obesity pharmacotherapy may be reasonable to use for promotion of weight loss. ¹

*Economic value statements are for health system–level decisions and are not intended to guide decisions for individual patients.

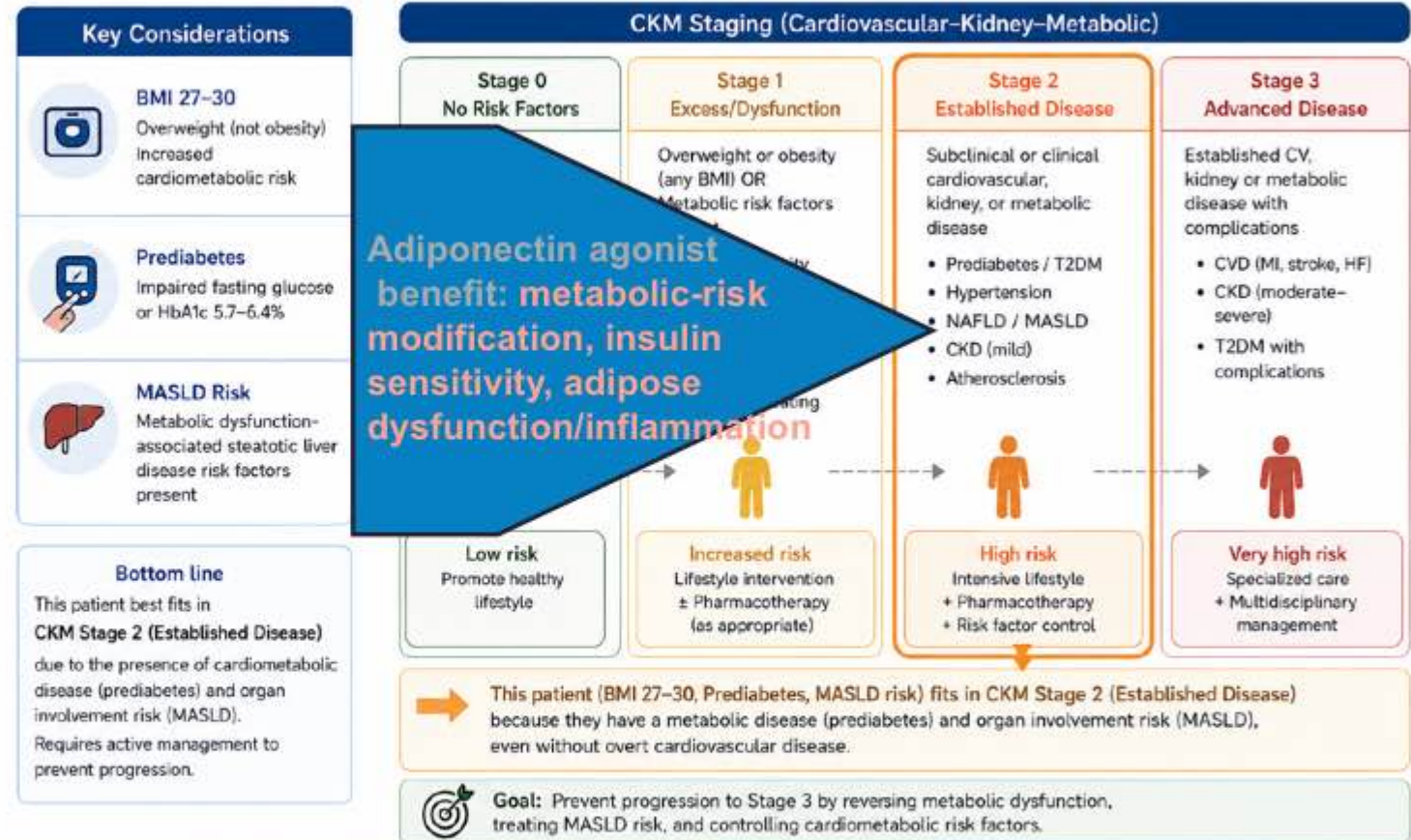
improve adipose tissue function, insulin sensitivity, inflammation/metabolic flexibility

Case no. 2: BMI 27–30 with prediabetes, MASLD risk

Where Does This Patient Fit in the CKM Framework?

Patient profile: BMI 27–30, Prediabetes, MASLD risk

While **lifestyle modification remains the foundation of preventive efforts**, Pharmacologic management of metabolic risk factors, CKD, or both is also central to the care model in stage 2, to reduce risk for CKM syndrome progression.

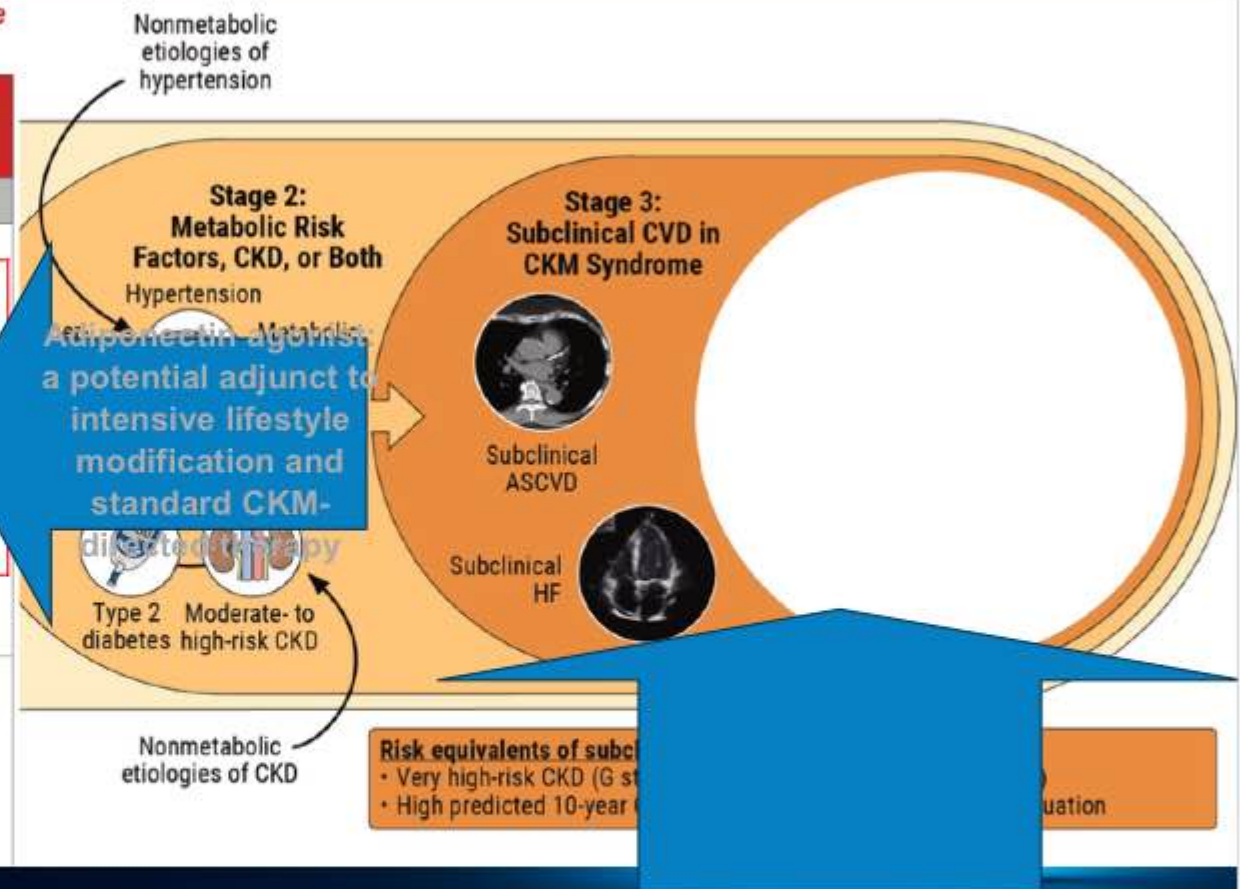


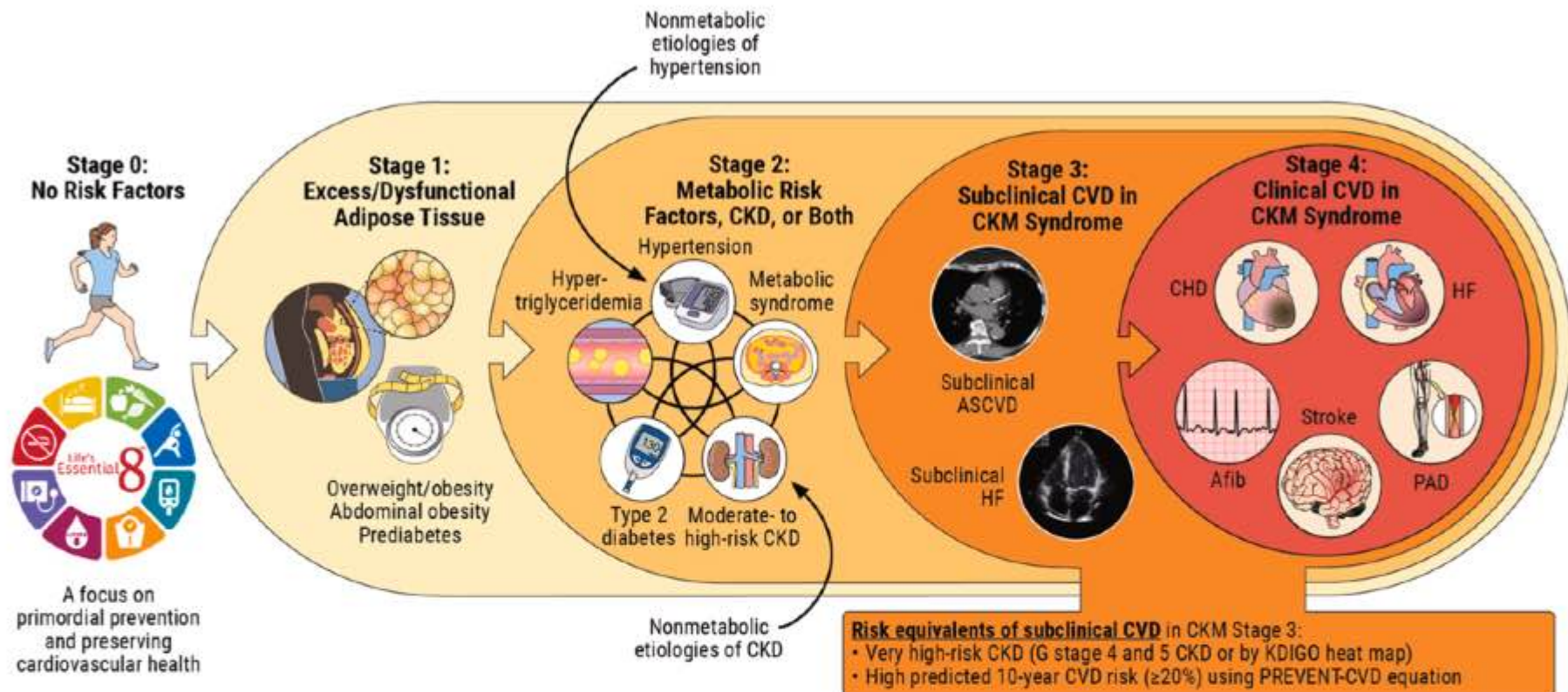
Case no. 3: BMI below 27 with Food craving, visceral obesity (majority of people)

5.5.1. Management of T2D in CKM Syndrome Stage 2 to 3

Recommendations for T2D in CKM Syndrome Stage 2 to 3
Referenced studies that support recommendations are summarized in the evidence table.

COR	LOE	Recommendations
1	A	1. In adults with CKM syndrome stage 2 to 3 with T2D, lifestyle modification that includes behavior modification, healthy diet, and recommended physical activity levels, with adjunctive pharmacological and/or surgical approaches as needed, is recommended to achieve and maintain a healthy weight and to improve glycemia control. ¹⁻⁶
1	B-R	2. In adults with CKM syndrome stage 2 to 3 with T2D, intensified multifactorial interventions including both lifestyle change and targeted pharmacotherapy to address hyperglycemia, hypertension, dyslipidemia, and albuminuria is recommended to reduce the risk of CVD, mortality, and kidney complications. ⁶⁻⁸
1	A	3. In adults with CKM syndrome stage 2 to 3 with T2D and increased risk for CVD (10-y PREVENT-CVD $\geq 7.5\%$), the treatment plan should include an sodium-glucose cotransporter-2 inhibitors (SGLT2i) or a GLP-1-based therapy with demonstrated benefit to reduce cardiovascular events and mortality. ⁹⁻¹²





Case no. 4

After successful weight loss
(e.g. with GLP-1 agonist or bariatric surgery)



Maintenance of risk reduction



Unfortunately, 90% to 95% of US adults are in CKM stage 1 to 4, indicating an imperative to better facilitate the maintenance of ideal cardiovascular health starting early in life.^{2–4} Longitudinal data demonstrates that most middle-aged with stage 0 progress to a higher CKM stage over a 10 year period, which is associated with greater risk for CVD and mortality.⁵ Therefore, the focus of stage 0 is primordial prevention, with a goal of preventing the development of CKM risk factors. There is a particular focus on **preventing the development of excess and dysfunctional adipose tissue** because the emergence of metabolic risk factors from youth and young adulthood into middle age is primarily related to weight gain with aging.⁶ Recommendations for facilitating primordial prevention are discussed in the 2019 ACC/AHA primary prevention guideline.



THANK YOU

For your patience