

**CARDIOVASCULAR KIDNEY METABOLIC SYNDROME**

Cardiovascular kidney Metabolic (CKM) syndrome is a health disorder caused by connections among heart disease, kidney disease, diabetes and obesity. This clustering of risk can lead to poor health outcomes.

CKM Syndrome is a condition that usually starts early in life and gets worse over time. It causes the body to store too much fat, leading to inflammation, cell damage, and problems using sugar for energy. Over time, it increases the risk of heart and kidney problems, which may eventually lead to heart disease and/or kidney failure.

A body mass index (BMI) of 25 or higher, or a waist size of 88cm or more, or a BMI of 23 or waist size of 80cm or more for women of Asian ancestry — increases the risk of developing these conditions.



**WOMENHEART**

THE NATIONAL COALITION FOR  
WOMEN WITH HEART DISEASE



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**WOMENHEART:** The National Coalition for Women with Heart Disease is the nation's first and still only patient centered organization exclusively focused on serving millions of American women living with or at risk for heart disease — the leading cause of death in women. WomenHeart is solely devoted to advancing women's heart health through advocacy, community education, and the nation's only patient support network for women living with heart disease. WomenHeart is both a coalition and a community of thousands of members nationwide, including women heart patients and their families, physicians, and health advocates, all committed to helping women live longer, healthier lives. To learn more or to donate visit [womenheart.org](https://www.womenheart.org).

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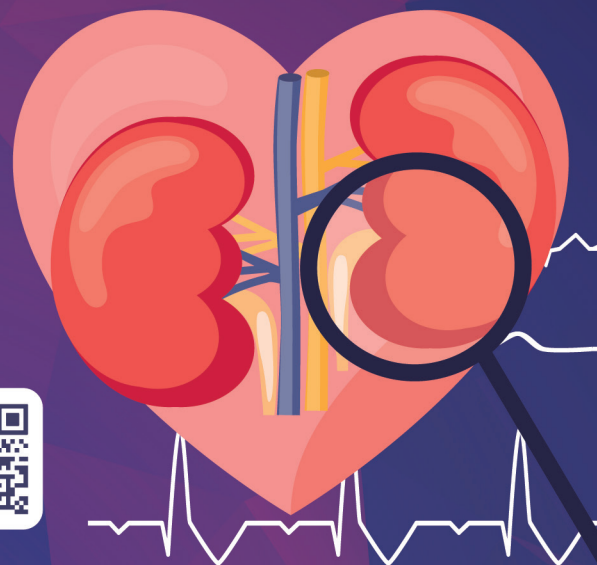
# CARDIOVASCULAR KIDNEY METABOLIC SYNDROME

Identifying CKM syndrome helps both doctors and individuals better understand a person's current health, select evidence-based therapies, and take steps to improve health and prevent the syndrome from progressing.

Screening for CKM syndrome should look at both biological risk factors and those that include social and structural barriers to engaging in healthy lifestyle practices (things like safe walking spaces, availability of healthy food) and access to healthcare.

The PREVENT™ calculator is a tool developed by the American Heart Association's Cardiovascular-Kidney-Metabolic Scientific Advisory Group to help assess your risk. It's designed for adults ages 30 to 59 who do not have atherosclerotic cardiovascular disease or heart failure.

Consider calculating your score and discussing the results with your healthcare provider at your next visit.



There are many **risk factors** that are unique to women that may make someone more likely to develop CKM syndrome. These include:

- Chronic inflammatory conditions (e.g. psoriasis, rheumatoid arthritis, lupus, HIV/AIDS)
- Mental health disorders, such as depression and anxiety
- History of premature menopause (before 45 years old)
- History of polycystic ovary syndrome (PCOS)
- History of adverse pregnancy outcomes, including gestational diabetes or hypertension, preterm birth or delivering a baby who was small for gestational age
- Elevated high-sensitivity C-reactive protein ( $\geq 2.0$ mg/dL)
- Limited access to healthcare, self-care, food or housing insecurity

CKM syndrome is classified into **4 STAGES** based on the presence of specific risk factors and clinical signs.

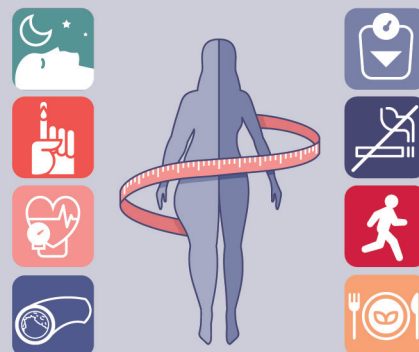
STAGE 0	STAGE 1	STAGE 2	STAGE 3	STAGE 4
No risk factors. <ul style="list-style-type: none"><li>• BMI 25 or less</li></ul>	<ul style="list-style-type: none"><li>• BMI <math>\geq 25</math> or</li><li>• Waist circumference <math>\geq 88</math> cm (women)</li><li>• Fasting blood glucose: 100–124 mg/dL</li><li>• A1C: 5.7–6.4%</li></ul>	<ul style="list-style-type: none"><li>• Triglycerides <math>\geq 135</math> mg/dL</li><li>• High blood pressure</li><li>• Diabetes</li><li>• Chronic kidney disease (CKD)</li></ul>	<ul style="list-style-type: none"><li>• Subclinical atherosclerosis or heart failure (diagnosed by imaging)</li><li>• High-risk CKD (stage 4 or 5)</li><li>• High predicted CV risk from screening tools</li></ul>	<ul style="list-style-type: none"><li>• Cardiovascular disease (e.g., heart disease, heart failure, stroke, PAD, atrial fibrillation)</li><li>• Chronic kidney disease (CKD)</li></ul>

## PREVENTING, DELAYING & TREATING CKM

As with most conditions, the foundation for managing CKM starts with healthy lifestyle behaviors. Stage regression is possible with lifestyle changes that lead to intentional weight loss.

The guidelines for CKM, emphasize the American Heart Association's Life's Essential 8™

- Sleep
- Diabetes
- Blood Pressure
- Cholesterol
- Weight
- Tobacco Use
- Activity/Exercise
- Nutrition



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