

A guide to cardiovascular-kidney-metabolic syndrome

Cardiovascular-kidney-metabolic syndrome (CKM) involves multiple related conditions that affect your heart, kidneys, and metabolism. Managing these conditions together can help slow the progression of chronic kidney disease and keep you healthier.

What is CKM syndrome?

CKM syndrome is the connection between conditions that have shared risk factors and a greater chance of developing together and can include:

- Heart disease
- Chronic kidney disease
- Diabetes or insulin resistance
- High blood pressure
- High cholesterol

If these conditions are not well managed, they can get worse over time. For example, when the kidneys do not work well, the heart must work harder. When the heart is strained, kidney function can decline. Blood sugar problems can worsen both.

What are the symptoms of CKM?

Symptoms can be mild at first in the early stages and may be easy to miss. Some people may not notice symptoms until the condition has progressed. That's why regular checkups and lab tests are important for early detection.

- Feeling tired or low energy
- Swelling in the feet, ankles, or legs
- Shortness of breath
- Chest discomfort
- Changes in urination
- High blood sugar or blood pressure readings
- Weight gain or trouble losing weight

What are the stages of CKM?

Stage 0 CKM:
No CKM risk factors

Stage 1 CKM:
Early warning signs

Stage 2 CKM:
Health risks start to show

Stage 3 CKM:
Heart and blood vessel problems begin

Stage 4 CKM:
Signs and symptoms of heart problems

How is CKM diagnosed?

Since CKM affects many parts of the body, it's important to look at the whole picture. It's usually diagnosed using a mix of tests and health history, including:

- Blood tests to check kidney function and blood sugar
- Urine tests to look for protein or kidney damage
- Blood pressure checks
- Cholesterol testing
- Heart tests, like an EKG

How is CKM treated?

Treatment usually consists of a personalized plan that focuses on managing all the connected conditions together. If you have heart disease, kidney disease, type 2 diabetes, or obesity, talk with your provider about specific ways to protect your health and prevent or treat CKM.

Treatment may include:

- Medications to control blood pressure, blood sugar, or cholesterol
- Treatment to protect kidney function
- Heart-healthy meal plans
- Physical activity, as advised by your care team
- Weight management and stress reduction
- Regular follow-up with your healthcare providers



We are here to help

Your care team can help answer your questions about cardiovascular-kidney-metabolic syndrome. Reach out for any support you need.