

Metabolic Syndrome

Fact Sheet



What Is Metabolic Syndrome?

Metabolic syndrome is a **cluster of conditions** that occur together and significantly increase your risk for **heart disease, type 2 diabetes, and stroke**. You may be diagnosed with metabolic syndrome if you have **three or more** of the following:

- **Waist circumference** exceeding 94 cm in men and 80 cm in women;
- High plasma **triglycerides** level—at least 150 mg/dL;
- Lowered plasma high-density lipoprotein cholesterol (**HDL-C**) level—less than 40 mg/dL in men or less than 50 mg/dL in women;
- **Fasting plasma glucose** level of at least 100 mg/dL;
- **Systolic blood pressure (SBP)** of at least 130 mmHg and/or **diastolic blood pressure (DBP)** of at least 85 mmHg.

These conditions often share a common root: **insulin resistance**, where your body's cells do not respond effectively to insulin.

Why It Matters

Metabolic syndrome is not just a label, it is an **early warning sign** that your metabolism is under strain. If left unaddressed, it can lead to:

- Type 2 diabetes
- Cardiovascular disease (heart attack, stroke)
- Non-alcoholic fatty liver disease
- Chronic inflammation

The good news: **It is often preventable, and in many cases, reversible, with lifestyle changes.**

What Causes Metabolic Syndrome?

Metabolic syndrome doesn't develop overnight. It is usually the result of **several factors working together over time**, many of which are within your ability to improve.

Diet High in Processed Foods, Animal Foods, and Added Sugars

Frequent intake of ultra-processed foods, sugary beverages, refined grains, and high amounts of saturated fat from animal sources can overwhelm the body's ability to regulate blood sugar and cholesterol. These foods are often low in fiber and high in calories, which can promote **insulin resistance, weight gain, and inflammation**—key drivers of metabolic syndrome.

Excess Body Fat, Especially Around the Abdomen

Carrying extra weight, particularly around the waist, plays a major role. This type of fat, called **visceral fat**, surrounds internal organs and is metabolically active. It releases hormones and inflammatory substances that can disrupt blood sugar control, increase blood pressure, and negatively impact cholesterol levels.

Physical Inactivity

A sedentary lifestyle reduces your body's ability to use insulin effectively. Regular movement helps muscles absorb glucose from the bloodstream, improves circulation, and supports a healthy metabolism. Without enough activity, the risk of developing metabolic syndrome rises significantly.

Chronic Stress

Ongoing stress triggers the release of hormones like cortisol, which can increase blood sugar, promote fat storage (especially in the abdominal area), and raise blood pressure. Over time, chronic stress can quietly contribute to metabolic imbalance.

Poor Sleep

Sleep is essential for metabolic health. Consistently getting too little sleep—or poor-quality sleep—can affect hormones that regulate hunger and fullness, increase

cravings (especially for sugary foods), and worsen insulin resistance. Even small improvements in sleep can have meaningful health benefits.

Genetic Predisposition

Your genetics can influence your risk, but they do not determine your outcome. If you have a family history of diabetes, heart disease, or metabolic syndrome, you may be more susceptible. However, **lifestyle choices can strongly influence how your genes are expressed**, meaning you still have significant control over your health trajectory.

The Power of Lifestyle Medicine

Research consistently shows that **lifestyle interventions are the foundation of prevention and treatment**.

Nutrition: Your Most Powerful Tool

A whole-food, plant-forward eating pattern can help improve insulin sensitivity, lower blood pressure, reduce LDL cholesterol and triglycerides, support healthy weight loss, and decrease inflammation—key factors in improving overall metabolic health.

Physical Activity

Aim for at least **150 minutes of moderate activity per week** (e.g., brisk walking). Include **strength training** 2–3 times per week. Reduce sedentary time (sit less, move more)

Weight Management

Even modest weight loss (**5–10% of body weight**) can significantly improve metabolic markers.

Sleep and Stress

Prioritize **7–9 hours of quality sleep**. Manage stress through practices like mindfulness, time outdoors, or movement

Can It Be Reversed?

Yes. Many people can improve, and often normalize, blood sugar, blood pressure, and cholesterol with consistent lifestyle changes. In some cases, this can reduce or eliminate the need for medication under medical supervision. The key is **small, sustainable steps done consistently.**

Practical Ways to Start Reversing Metabolic Syndrome

1. Build Your Plate Around Whole, Plant Foods

Focus on foods that are naturally high in fiber and nutrients:

- Fill **half your plate with vegetables** (leafy greens, broccoli, peppers)
- Add **beans or lentils daily** (aim for at least 1 cup)
- Choose **whole grains** (oats, brown rice, quinoa) instead of refined grains
- Include **healthy fats** from nuts, seeds, and avocado

Simple start: Add one serving of beans or vegetables to a meal you already eat.

2. Cut Back on Added Sugars and Refined Carbs

Reducing sugar helps stabilize blood glucose and insulin levels:

- Replace sugary drinks with **water or unsweetened tea**
- Swap white bread, pasta, and pastries for **whole-food options**
- Limit desserts and ultra-processed snacks

Simple start: Eliminate or reduce **one daily source of added sugar.**

3. Move Your Body Daily

Physical activity improves insulin sensitivity quickly:

- Aim for **at least 30 minutes of movement most days**

- Walking after meals can significantly improve blood sugar control
- Add **strength training** 2–3 times per week

Simple start: Take a **10-minute walk after your largest meal.**

4. Support Healthy Weight Loss (If Needed)

Even a modest weight loss of **5–10% of your body weight** can:

- Lower blood pressure
- Improve cholesterol
- Reduce insulin resistance

Simple start: Focus on habits (food quality + movement), not the scale.

5. Prioritize Sleep

Better sleep improves hormones that regulate hunger and metabolism:

- Aim for **7–9 hours per night**
- Keep a consistent sleep schedule
- Limit screens before bed

Simple start: Go to bed **30 minutes earlier** than usual.

6. Manage Stress

Chronic stress can worsen metabolic health:

- Practice **deep breathing, mindfulness, or meditation**
- Spend time outdoors
- Stay connected with supportive people

Simple start: Take **5 minutes daily to pause and breathe deeply.**

7. Work With Your Healthcare Provider

Track key markers: blood pressure, glucose, cholesterol. Adjust medications safely as your health improves. Ask about additional support (dietitian, health coach, programs)

Quick Swaps for Better Metabolic Health

Breakfast

Instead of: Sugary cereal or pastries

Try: Oatmeal with fruit and nuts

👉 More fiber = better blood sugar control and longer fullness

Midmorning Snack

Instead of: Granola bars or chips

Try: Fresh fruit + a handful of nuts

👉 Balanced carbs + healthy fats help prevent energy crashes

Lunch

Instead of: Deli sandwich with processed meat and cheese

Try: Whole grain wrap with hummus, beans, and veggies

👉 Cuts saturated fat and adds fiber + plant protein

Afternoon Snack

Instead of: Cookies or candy

Try: Berries, veggies with garlic hummus

👉 Supports stable blood sugar and reduces cravings

Dinner

Instead of: Meat-centered plate (steak, chicken + sides)

Try: Build your plate around beans, lentils, or tofu with vegetables and whole grains

👉 Improves cholesterol, insulin sensitivity, and satiety

Beverages

Instead of: Soda or sugary drinks

Try: Water, sparkling water, or unsweetened tea

👉 One of the fastest ways to reduce excess sugar intake

Take Home Message

Metabolic syndrome is not a life sentence, it's a powerful turning point. Your body has an incredible ability to heal when given the right conditions, and the choices you make each day truly matter. By building your meals around whole, plant-forward foods, moving your body regularly, and prioritizing sleep and stress management, you can begin to restore your metabolic health—often faster than you think. You don't need to be perfect to see results.

Start with one simple change today: add a fiber-rich plant food to your next meal, take a 10-minute walk, or swap a sugary drink for water. Small, consistent steps create meaningful, lasting change. Talk with your healthcare provider, lean into support, and take that first step—your future health is built on what you do today.

References

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