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# Metabolic Syndrome

*Five routine numbers that together flag insulin resistance, and the steps that move most of them back to normal.*

**3 of 5**
criteria present is enough for the diagnosis

**Roughly 40%**
of US adults have it, rising sharply after age 40 and after menopause

**Roughly 2×**
the risk of heart and artery disease from plaque

THE FIVE CRITERIA

## A waist, a blood pressure and two blood tests

| Waist size | Triglycerides | HDL cholesterol | Blood pressure | Fasting glucose |
|---|---|---|---|---|
| Men **over 40 in** Women **over 35 in** measured at the navel | **150 or higher** mg/dL, or on medicine to lower them | Men **under 40** Women **under 50** mg/dL | **130/85 or higher** mmHg, or on blood pressure medicine | **100 or higher** mg/dL, or on glucose-lowering medicine |

**Any 3 or more of the 5 = metabolic syndrome**

Diagnosis takes only a routine office visit with a waist measurement, a blood pressure reading and a fasting lipid panel and glucose. Waist size tracks deep belly fat better than BMI, so a normal BMI doesn't rule it out. Every adult 35 and older should be screened at a routine physical, and higher-risk people earlier.

WHAT DRIVES IT

## Insulin resistance underneath all five

**Sticky locks**
Insulin is the key that lets sugar into your cells. In insulin resistance the locks get sticky, and the pancreas floods the body with extra insulin.

**Belly fat feeds the loop**
Extra insulin promotes fat storage, especially in the abdomen. That belly fat releases inflammatory signals that worsen insulin resistance.

**Damage downstream**
Higher triglycerides and lower HDL, fatty liver, higher blood pressure, strain on the pancreas and faster plaque in the arteries.

Most people have no symptoms until a complication, such as a heart attack or a new diabetes diagnosis, forces the conversation.

**Largely reversible**

Most patients can move three of the five criteria back into the normal range within 6 to 12 months of consistent effort, and many resolve the diagnosis entirely.



HOW TO REVERSE IT IS ON THE BACK

TURNING IT AROUND

# Lifestyle first, then medicine for what remains

## THE LIFESTYLE PRESCRIPTION

the only treatment that works on all five at once

| | |
|---|---|
| **Lose 5 to 10%** | Losing 5 to 10% of your body weight gives the largest benefit per pound. For a 200-pound adult, that's 10 to 20 pounds. |
| **Mediterranean-pattern eating** | Olive oil, vegetables, legumes, fish, whole grains and nuts. Keep refined carbohydrates, added sugar and ultra-processed food to a minimum. |
| **Aerobic activity** | 150 minutes or more of moderate activity a week, or 75 or more of vigorous. Walking counts, and consistency beats intensity. |
| **Resistance training** | Two sessions a week working the major muscle groups, particularly important after age 50. |
| **Sleep and stress** | 7 to 9 hours a night, since less than 6 measurably worsens insulin resistance. Chronic stress drives belly fat, and mindfulness, social connection and time outdoors help. |

## MEDICINE FOR WHAT PERSISTS

added for components still abnormal at 3 to 6 months

| | |
|---|---|
| **Blood pressure** | The target is under 130/80, starting with an ACE inhibitor or ARB and adding a thiazide or amlodipine if needed. |
| **Triglycerides and cholesterol** | Start with a statin. If triglycerides are over 500, icosapent ethyl or fenofibrate is added. |
| **Blood sugar** | Metformin first, then an SGLT2 inhibitor or a GLP-1 medicine for people at higher heart risk. |
| **Weight** | A GLP-1 medicine such as semaglutide or tirzepatide for a BMI of 30 or more, or 27 or more with a related condition. These support lifestyle change and don't replace it. |
| **HDL** | No drug raises it reliably. Exercise, quitting smoking and weight loss are the levers. |

## WHAT DOESN'T REVERSE IT

| | |
|---|---|
| **Supplements** | Chromium, cinnamon, apple cider vinegar and berberine are modest at best and often do nothing. |
| **Crash dieting** | It drives muscle loss, which worsens insulin sensitivity and metabolic rate. |
| **Quick fixes** | Spot-reduction exercise, sugar substitutes alone without other changes, detox protocols and juice cleanses. |

## STEPS FOR THIS WEEK

Get a fasting lipid panel, an A1c and a one-time lipoprotein(a). Measure your waist, and average your home blood pressure over 5 mornings. Start a 30-minute daily walk, swap ultra-processed snacks and sugary drinks for whole foods, and book a focused visit to build a written plan.

## READ THE FULL ARTICLE

damianrasch.com/metabolic-syndrome

For education only, and not a substitute for advice from your own physician. Sources include the 2018 AHA/ACC cholesterol guideline, the 2023 AHA CKM scientific statement, the 2019 Endocrine Society guideline, the DPP, PREDIMED, SELECT, STEP and SURMOUNT trials and NHANES data.

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