



METABOLIC SYNDROME

Metabolic syndrome is used to describe a group of conditions which when found together in an individual significantly raises that individual's risk for coronary heart disease, diabetes and stroke. If you are diagnosed with metabolic syndrome, you are three times more likely to have a heart attack or stroke.

It's serious | The conditions and disorders associated with metabolic syndrome are so-called 'silent killers' where symptoms are only noted at a very late stage, when damage to various organs may already have occurred.

Metabolic syndrome is diagnosed when three or more of the following chronic conditions or disorders are identified in one person.

High blood pressure

High blood pressure refers to the force of blood pushing against the walls of the blood vessels. Uncontrolled hypertension, or high blood pressure, can lead to organ damage.

Central obesity

Carrying excess weight around your abdomen is a significant risk factor. Your waist circumference should not exceed 89cm for women and 102cm for men.

Low HDL level and an elevated triglyceride level

Low Density Lipoprotein (LDL) is bad cholesterol that clogs up arteries. High Density Lipoprotein (HDL) is good cholesterol that helps to remove LDL from the arteries and protect against heart disease and stroke. A laboratory blood test can give the levels of both these cholesterol types and will also indicate your triglyceride level. A high triglyceride level together with a high LDL level and low HDL level is a risk factor for metabolic syndrome.

A high fasting blood sugar level

A blood sugar test measures the levels of glucose in your blood. A fasting finger prick test is done in the morning before you have anything to eat or drink. In the fasting test, 5.6mmol/l and below

is considered normal. If you have a reading of around 7.8mmol/l, further testing is warranted. A number of organs, including your heart, can be damaged by high blood sugar. Diabetes is diagnosed after two tests show a high blood sugar reading (over 7.0mmol/l).

Metabolic syndrome is associated with insulin resistance

What is insulin? Insulin is a hormone made in the pancreas. The digestive system breaks down carbohydrates into glucose, a form of sugar, which enters your bloodstream via your intestines. This signals the pancreas to release insulin which helps to move blood sugar into the cells for energy.



About diabetes | If you are diagnosed with type 1 diabetes, your body produces no insulin. In type 2 diabetes, your body doesn't produce enough insulin or it doesn't use it correctly. Your risk for type 2 diabetes increases if you are overweight, eat a poor diet and don't get much exercise.

What is insulin resistance? Your body's cells do not respond to insulin as they should. The body tries to obtain a normal blood sugar level and this triggers the pancreas to secrete more insulin. The less the body responds to insulin, the more is released. Insulin resistance is linked to obesity.

Metabolic syndrome – are you at risk?

There are a number of factors that put you at a greater risk for developing metabolic syndrome. These include your age (over 60), a family history for type 2 diabetes or gestational diabetes in pregnancy and if you have cardiovascular disease, polycystic ovary syndrome (PCOS) or non-alcoholic fatty liver disease.



Diagnosis and lifestyle changes

If you are concerned about your health and are not sure if you may have metabolic syndrome, see your doctor for a complete health check.



Good news | Metabolic syndrome is treatable if you have already been diagnosed and preventable if you have not. You need to take advice care of your health and make significant changes to your lifestyle and diet.



After diagnosis | If you have been diagnosed with metabolic syndrome, or any of the conditions or diseases that make up metabolic syndrome, making serious lifestyle changes can help prevent the development of life-threatening health problems. Depending on your health situation, you may be prescribed medication for the various conditions to prevent a further decline in your health. These include medication for high blood pressure, high cholesterol, high blood sugar and blood-thinning medications to prevent clots and reduce the risk of a stroke. If you have diabetes this will also need to be properly managed.

- 01. Lose weight.** Improve your diet by eating more fruit, vegetables, lean meats, fish, low-fat dairy products and whole grains. To get an idea of how much weight you need to lose, calculate your body mass index. Experts says that a BMI of less than 25 is a goal in the treatment and prevention of metabolic syndrome. To calculate your BMI, divide your weight by the square of your height. For example: if you are 1.80m and weigh 78kg. $1.8 \times 1.8 = 3.24$. $78 \div 3.24 = 24.0$.
- 02. Start exercising.** Consider joining the gym to improve your fitness and boost weight loss. If you don't like the idea of gym, consider another exercise or sport. Walking every day can improve your fitness. Start with a 15 to 20 minute walk on at least five days of the week, building up to 30 minutes each time you walk.
- 03. Know your health numbers.** See your doctor regularly for check-ups to ensure that you are on track with your weight-loss programme and that your blood pressure, blood sugar and cholesterol levels are normalising.

Further reading: Learn more about metabolic syndrome, diet and weight loss.



Resources

1. <http://www.mayoclinic.co.za>
2. <http://www.medicinenet.com/script/main/hp.asp>
3. <http://www.heart.org/HEARTORG/>
4. <http://www.diabetes.co.uk>



KICK THE HABIT

Research shows that smoking can worsen the effects of metabolic syndrome. If you have been diagnosed with any of the conditions associated with metabolic syndrome, you must stop smoking. See your healthcare practitioner or contact your employee wellbeing programme for more information on how to enrol onto a quit-smoking programme.

CHECK YOUR DIET

What foods are good or bad for people diagnosed with metabolic syndrome?



Foods to avoid

- >Processed food
- >Added sugar - check all foods labels for the total sugar content, as sugar is often 'hidden' in the ingredient list
- >Trans fats (in baked goods; biscuits and pies)
- >Refined carbohydrates
- >Alcohol



Food to include

- >Fish and Omega 3 foods
- >Vegetables
- >Fruit
- >Whole grains
- >Lentils