

The Sunshine Chiropractic Clinic
380 High Street
Maryville, TN 37804
(865)984-6850

The Sunshine Chiropractic Clinic
404 Northshore Drive
Knoxville, TN 37919
(865)584-0080

Metabolic Syndrome

What Is Metabolic Syndrome?

Metabolic Syndrome is a collection of health risks that increase your chance of developing heart disease, stroke, and diabetes. The condition is also known by other names including Syndrome X, Insulin Resistance Syndrome, and Dysmetabolic Syndrome. According to a national health survey, more than one in five Americans has Metabolic Syndrome. The number of people with Metabolic Syndrome increases with age, affecting more than 40 percent of people in their 60's and 70's.

What Are The Health Risks?

Metabolic Syndrome is characterized by having at least three of the following symptoms.

- ◆ Abdominal obesity (excessive fat tissue in and around the abdomen). Over 40 inches for men and over 35 inches for women.
- ◆ Artherogenic Dyslipidemia (blood fat disorders—high triglycerides, low HDL cholesterol and high LDL cholesterol—that foster plaque buildups in artery walls).
- ◆ Elevated blood pressure.
- ◆ Insulin resistance or glucose intolerance (the body cannot properly use insulin or blood sugar).

- ◆ Prothrombotic state (e.g., high fibrinogen or plasminogen activator inhibitor –1 in the blood).
- ◆ Proinflammatory state (e.g., elevated C-reactive protein in the blood).

Who Typically Has Metabolic Syndrome?

- People with diabetes who cannot maintain a proper level of glucose (glucose intolerance).
- People without diabetes who have high blood pressure and who also secrete large amounts of insulin (hyperinsulinemia) to maintain blood glucose levels.
- Heart attack survivors who have hyperinsulinemia without glucose intolerance.

What Are The Symptoms Of Metabolic Syndrome?

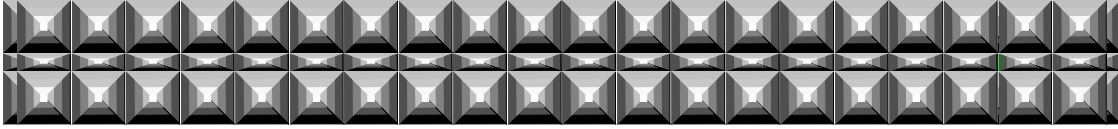
Usually, there are no immediate physical symptoms; the syndrome's associated medical problems develop over time.

What Causes Metabolic Syndrome?

The exact cause of Metabolic Syndrome is not known. Most researchers believe it is caused by a combination of your genetic makeup and lifestyle choices—including the types of food you eat and your level of physical activity.

If you have Metabolic Syndrome,

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Your body experiences a series of biochemical changes. Over time, these changes lead to the development of one or more associated medical conditions. The sequence begins when insulin, a hormone excreted from your pancreas, loses its ability to make your body's cells absorb glucose from the blood. Your body uses glucose for energy. When this happens, glucose levels remain high after you eat. Your pancreas, sensing a high glucose level in your blood, continues to excrete insulin. Loss of insulin production may be genetic or secondary to high fat levels with fatty deposits in the pancreas.

If I Have Metabolic Syndrome, What Health Problems Might Develop?

Consistently high levels of insulin and glucose are linked to many harmful changes to the body, including:

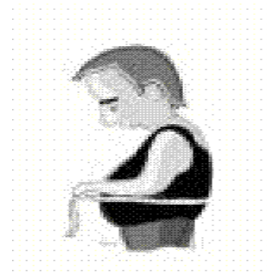
- 1 Damage to the lining of coronary and other arteries, a key step toward the development of heart disease or stroke.
- 2 Changes in the kidney's ability to remove salt, leading to high blood pressure, heart disease

- and stroke.
3. An increase in triglyceride levels, resulting in an increased risk of developing cardiovascular disease.
4. An increased risk of blood clot formation, which can block arteries and cause heart attacks and strokes.
5. A slowing of insulin production, which can signal the start of Type 2 Diabetes, a disease that can increase your risk for a heart attack or stroke and may damage your eyes, nerves or kidneys.

How Do I Prevent Or Reverse Metabolic Syndrome?

You can lower your risk of heart disease and diabetes by improving your eating habits, getting more physical activity and losing weight. If you smoke, you should stop smoking.

Drs. Barry and Brian Sunshine can help with: Nutritional Counseling, Stress Management & Exercise Therapy.



We Can Help!