

# Breaking down metabolic syndrome: Causes, symptoms, and management strategies.

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## Introduction

Metabolic syndrome is a growing health concern that affects millions of people worldwide, increasing their risk of heart disease, stroke, and type 2 diabetes. This cluster of health conditions, often referred to as a "metabolic syndrome," is a silent epidemic that requires understanding and proactive management. In this article, we will delve into the causes, symptoms, and effective strategies for managing metabolic syndrome [1].

Metabolic syndrome is not a single disease but a combination of several interconnected risk factors that, when present together, increase the likelihood of cardiovascular disease and other health problems. Excess fat around the waist is a primary feature of metabolic syndrome, often measured by waist circumference. This is a crucial component because fat stored in the abdominal region is particularly harmful to health [2].

Elevated blood pressure, or hypertension, is a significant risk factor for heart disease and stroke. In metabolic syndrome, blood pressure levels are usually higher than 130/85 mm Hg. Insulin resistance or elevated blood sugar levels (hyperglycemia) often precede the development of type 2 diabetes. In metabolic syndrome, fasting blood sugar levels are typically higher than 100 mg/dL [3].

Dyslipidemia, which includes high triglycerides, low levels of high-density lipoprotein (HDL) cholesterol, and increased levels of low-density lipoprotein (LDL) cholesterol, contributes to the risk of heart disease. The body's inability to use insulin efficiently is a core factor in metabolic syndrome. Insulin is a hormone that regulates blood sugar, and resistance to its actions can lead to elevated blood sugar levels. A family history of metabolic syndrome can increase an individual's risk [4].

Excess body fat, particularly around the abdomen, is a major contributor to metabolic syndrome. A sedentary lifestyle is

strongly linked to the development of metabolic syndrome. Consuming a diet high in refined carbohydrates, sugar, and unhealthy fats is a significant risk factor. Underlying insulin resistance often plays a central role in metabolic syndrome [5].

## Conclusion

Metabolic syndrome is a complex and multifaceted health concern that demands attention, understanding, and action. By recognizing the risk factors and adopting a proactive approach to health and wellness, individuals can effectively manage and even prevent metabolic syndrome. A healthy lifestyle, regular medical check-ups, and appropriate medical interventions when necessary are key to breaking down the barriers that this silent epidemic presents. Remember, early intervention and a commitment to a healthy lifestyle can make all the difference in reducing your risk and improving your overall health.

## References

1. Kaur J. A comprehensive review on metabolic syndrome. *Cardiology research and practice*. 2014;2014.
2. Wu G. Management of metabolic disorders (including metabolic diseases) in ruminant and nonruminant animals. *In Animal agriculture 2020* (pp. 471-491). Academic Press.
3. Prabu SL. Sandhoff disease: pathology and advanced treatment strategies. *In Drug Delivery Systems for Metabolic Disorders 2022* (pp. 351-358). Academic Press.
4. Voinov VA. Therapeutic apheresis in metabolic syndrome. *Immunology, Endocrine & Metabolic Agents in Medicinal Chemistry (Formerly Current Medicinal Chemistry-Immunology, Endocrine and Metabolic Agents)*. 2018;18(1):38-54.
5. Rodie VA, et al.,. Pre-eclampsia and cardiovascular disease: metabolic syndrome of pregnancy? *Atherosclerosis*. 2004;175(2):189-202.

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