
REVIEW

METABOLIC SYNDROME – A COMMON CONDITION IN MODERN SOCIETIES

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Abstract. *The presence of multiple unknowns and uncertainty factors in medical research has made it extremely challenging to distinguish the preclinical phase of a chronic disease, such as the metabolic syndrome (MS), from the initial condition of health. MS is a complex and multifactorial medical condition characterized by the presence of at least three of the following conditions: high insulin levels (normal HOMA qualitative index < 2), elevated serum glucose level > 126 mg/dl, patients with abdominal obesity, a body mass index (BMI) ≥ 30 kg/m², a lipid panel showing a triglyceride level ≥ 150 mg/dl, and HDL-CO < 35 mg/dl in men and < 45 mg/dl in women. In all developed countries, the number of obese people diagnosed with insulin resistance (IR) has rapidly increased to > 40% in recent years. This condition precedes the development of MS. The likelihood of having MS rises with advancing age. Additionally, new research has identified other influential hormones produced by adipose tissue that significantly impact metabolism, such as lipid cytokines, leptin, adiponectin, and resistin. Researchers believe that central obesity and the chronic inflammatory process play a key role in the development of metabolic syndrome and focus on mitochondrial dysfunction, changes in the gut microbiome, and pancreatic beta cell dysfunction. The primary determinant in averting the development of MS is humanity's struggle against its own bioenergetic entropy, which may induce catabolic processes that abbreviate life expectancy while promoting negentropy until the fulfillment of the life program predetermined in the genetic code.*

Keywords: *metabolic syndrome, qualitative index HOMA, body mass index.*

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