

Current Metabolic Syndrome Definitions

Organization	National Cholesterol Education Program-Adult Treatment Panel III ¹ Requires three or more risk factors	World Health Organization (WHO) ² Requires impaired glucose tolerance, diabetes, or insulin resistance plus two or more other risk factors	International Diabetes Federation (IDF) ³ Requires central obesity plus two or more other risk factors	European Group for the Study of Insulin Resistance (EGIR) ⁴ Requires insulin resistance ^a plus two or more risk factors
Risk Factors				
Blood pressure (mm Hg)	≥130/85	≥140/90	≥130/85	≥140/90 or being treated with antihypertensive medication
Triglycerides	≥150 mg/dL	≥150 mg/dL	≥150 mg/dL	≥177 mg/dL
HDL cholesterol	Men <40 mg/dL; women <50 mg/dL	Men <35 mg/dL; women <39 mg/dL	Men <40 mg/dL; women <50 mg/dL	<40 mg/dL
Fasting blood glucose	≥110 mg/dL ^{b,5}	N/A	>100 mg/dL	>110 mg/dL
Central obesity	Waist circumference: men >40 in (102 cm); women >35 in (88 cm)	Waist-to-hip ratio: men >0.9; women >0.85	Waist circumference: men ≥37 in (94 cm); women ≥31.5 in (80 cm)	Waist circumference: men ≥37 in (94 cm); women ≥31.5 in (80 cm)
Microalbuminuria	N/A	≥20 mcg/min or Alb/Cr ratio ≥30 mg/g	N/A	N/A

^aDefined as fasting insulin above the top quartile of that observed in nondiabetic patients.

^bThe American Diabetes Association has established a cutpoint of ≥100 mg/dL, above which persons have either prediabetes (impaired fasting glucose) or diabetes. This cutpoint should be applicable for identifying the lower boundary to define an elevated glucose as one criterion for the metabolic syndrome.

Alb, microalbumin; Cr, creatinine; HDL, high-density lipoprotein.

1. National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III). Third Report of the National Cholesterol Education Program (NCEP) Expert Panel on Detection, Evaluation, and Treatment of High Blood Cholesterol in Adults (Adult Treatment Panel III) final report. *Circulation*. 2002;106(25):3143–3421.
2. Alberti KG, Zimmet PZ. Definition, diagnosis and classification of diabetes mellitus and its complications. Part 1: diagnosis and classification of diabetes mellitus provisional report of a WHO consultation. *Diabet Med*. 1998;15(7):539–553.
3. Alberti KG, Zimmet P, Shaw J; IDF Epidemiology Task Force Consensus Group. The metabolic syndrome—a new worldwide definition. *Lancet*. 2005;366(9491):1059–1062.
4. Balkau B, Charles MA. Comment on the provisional report from the WHO consultation. European Group for the Study of Insulin Resistance (EGIR). *Diabet Med*. 1999;16(5):442–443.
5. Grundy SM, Hansen B, Smith SC Jr, et al. Clinical management of metabolic syndrome. Report of the American Heart Association/National Heart, Lung, and Blood Institute/American Diabetes Association Conference on Scientific Issues Related to Management. *Circulation*. 2004;109(4):551–556.