

# Prevalence of obesity and metabolic syndrome in

## Taiwan

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### Abstract

**BACKGROUND/PURPOSE:** Obesity and metabolic syndrome (MS) are major risk factors for the development of type 2 diabetes and cardiovascular diseases (CVD). This study estimated the prevalence of obesity and MS in Taiwan. **METHODS:** Data from a nationwide cross-sectional population-based survey of 5936 participants (2815 men, 3121 women; age range, 20-79.9 years) in 2002 were analyzed. Obesity was defined as a body mass index (BMI)  $\geq 27$  kg/m<sup>2</sup> according to the criteria of the Department of Health in Taiwan. The prevalence of MS was estimated using the definitions of the modified Adult Treatment Panel III (ATP III), the International Diabetes Federation for Chinese (MS-IDF(C)) and the MS criteria for Taiwanese (MS-TW). **RESULTS:** The overall prevalence of obesity in men was significantly greater than in women (19.2% vs. 13.4%,  $p < 0.0001$ ). The age-standardized prevalence of MS was 15.7% by the modified ATP III criteria, 14.3% by the MS-IDF(C) criteria and 16.4% by the MS-TW criteria. The prevalence of obesity and MS significantly increased with age (trend test,  $p < 0.0001$ ) in men and women. The risk of MS and its components increased significantly with BMI, and showed a marked increase with BMI  $\geq 24$  kg/m<sup>2</sup>. MS as classified by the MS-IDF(C) criteria failed to identify subjects at high risk of CVD who did not have abdominal obesity, including those with hypertension, type 2 diabetes and dyslipidemia. **CONCLUSION:** This study found a high prevalence of obesity and MS in Taiwan. The definitions of MS by the modified ATP III and MS-TW criteria were better able to detect high CVD risk than the MS-IDF(C) criteria.