Prevalence of obesity in primary care using different anthropometric measures--results of the German Metabolic and Cardiovascular Risk Project (GEMCAS).

BACKGROUND: Obesity is one of the greatest challenges in primary health care. The BMI describes fat mass and waist circumference (WC) fat distribution and total metabolic and cardiovascular risk. It was aim of the present study to assess the prevalence of a) overweight and obesity and b) an increased and high WC in adults seeking primary care in Germany and to describe the associations of both measures with cardiovascular risk factors and prognosis. METHODS: This was a point prevalence study with 1,511 primary care physicians and 35,869 adult patients in 2005. Bodyweight, height and waist circumference was measured and blood samples taken to determine the presence of cardiovascular risk factors, including lipids, blood pressure, fasting glucose, low physical activity, smoking and family history of myocardial infarction. We calculated rate ratios stratified for age and gender. RESULTS: There was a high prevalence of overweight (45.7% male [95%CI 44.9-46.5]; 30.6% female [95%CI 30.0-31.2]) and obesity (24.7% male [95%CI 24.0-25.4]; 23.3% female [95%CI 22.8-23.9]). 36.4% of male [95%CI 35.6-37.2] and 41.5% of female [95%CI 40.8-42.1] had a high WC (male> 102, female> 88 cm). A high WC in addition to an overweight BMI identified patients with more risk factors (male: mean of 3.93 risk
factors (RF) at a WC > 102 cm vs. 2.88 RF in patients 88 cm vs. 2.41 RF ≤ 80 cm).

CONCLUSION: There is a high prevalence of obesity (24.7% of male and 23.3% of female) and, in particular, abdominal obesity (36.4% of male and 41.5% of female) in adults attending a primary care physician in Germany. The determination of the BMI is sufficient to assess risk in normal weight and obese patients, while a high WC identifies high risk patients from within the overweight group.