




Association between adiposity measures and COPD risk in Chinese adults

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Abdominal adiposity and underweight were risk factors for COPD in Chinese adults. Both BMI and measures of abdominal adiposity should be considered in the prevention of COPD. <http://bit.ly/36To4fk>

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ABSTRACT Bodyweight and fat distribution may be related to COPD risk. Limited prospective evidence linked COPD to abdominal adiposity. We investigated the association of body mass index (BMI) and measures of abdominal adiposity with COPD risk in a prospective cohort study.

The China Kadoorie Biobank recruited participants aged 30–79 years from 10 areas across China. Anthropometric indexes were objectively measured at the baseline survey during 2004–2008. After exclusion of participants with prevalent COPD and major chronic diseases, 452 259 participants were included and followed-up until the end of 2016. We used Cox models to estimate adjusted hazard ratios relating adiposity to risk of COPD hospitalisation or death.

Over an average of 10.1 years of follow-up, 10 739 COPD hospitalisation events and deaths were reported. Compared with subjects with normal BMI (18.5–<24.0 kg·m⁻²), underweight (BMI <18.5 kg·m⁻²) individuals had increased risk of COPD, with adjusted hazard ratio 1.78 (95% CI 1.66–1.89). Overweight (BMI 24.0–<28.0 kg·m⁻²) and obesity (BMI ≥28.0 kg·m⁻²) were not associated with an increased risk after adjustment for waist circumference. A higher waist circumference (≥85 cm for males and ≥80 cm for females) was positively associated with COPD risk after adjustment for BMI. Additionally, waist-to-hip ratio and waist-to-height ratio were positively related to COPD risk.

Abdominal adiposity and underweight were risk factors for COPD in Chinese adults. Both BMI and measures of abdominal adiposity should be considered in the prevention of COPD.