

# **Association of sex, adiposity, and diet with HDL subclasses in middle-aged Chinese**

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摘要

## **Abstract**

**BACKGROUND:** There is limited information regarding the associations of lifestyle factors and sex with HDL subclasses containing apolipoprotein (apo) A-I (Lp A-I) and both apo A-I and apo A-II (Lp A-I:A-II). **OBJECTIVE:** We sought to examine the relations between 2 major HDL subclasses and sex, menopausal status, nutrient intakes, and adiposity. **DESIGN:** We conducted interviews and measured blood variables in 409 government employees aged 40-59 y in Taiwan. **RESULTS:** Women (n = 203) had significantly higher concentrations of HDL cholesterol, Lp A-I, and Lp A-I:A-II than did men (n = 206). Postmenopausal women (n = 72) had higher concentrations of HDL cholesterol, Lp A-I, and Lp A-I:A-II than did premenopausal women (n = 131). Body mass index and waist-to-hip ratio were strong predictors of and exerted an independent additive effect on Lp A-I concentrations in both men and women. However, body adiposity was associated with Lp A-I:A-II concentrations only in men. Waist-to-hip ratio was an independent determinant of Lp A-I but not of Lp A-I:A-II in men and postmenopausal women after adjustment for age, body mass index, smoking, and diet. Although there were relatively weak associations between dietary factors and both HDL subclasses (r = 0.01-0.26) in men and women according to bivariate analyses, multiple regression models showed that total fat, saturated fat, and cholesterol intakes were significantly correlated with HDL cholesterol and both Lp A-I and Lp A-I:A-II in men, but not in women. **CONCLUSION:** Our data suggest that body adiposity and dietary fat consumption affect 2 major HDL subclasses differently depending on subject sex and menopausal status