

Fig.S1. Association between body mass index and arterial stiffness via restricted cubic spline regression.

A. Model 1 in UK Biobank project; B. Model 2 in UK Biobank project; C. Model 1 in Fuqing cohort project; D. Model 2 in Fuqing cohort project; *Model 1 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, and LDL cholesterol; Model 2 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, LDL cholesterol, blood pressure, blood glucose, triglycerides, HDL cholesterol and WC/BMI.

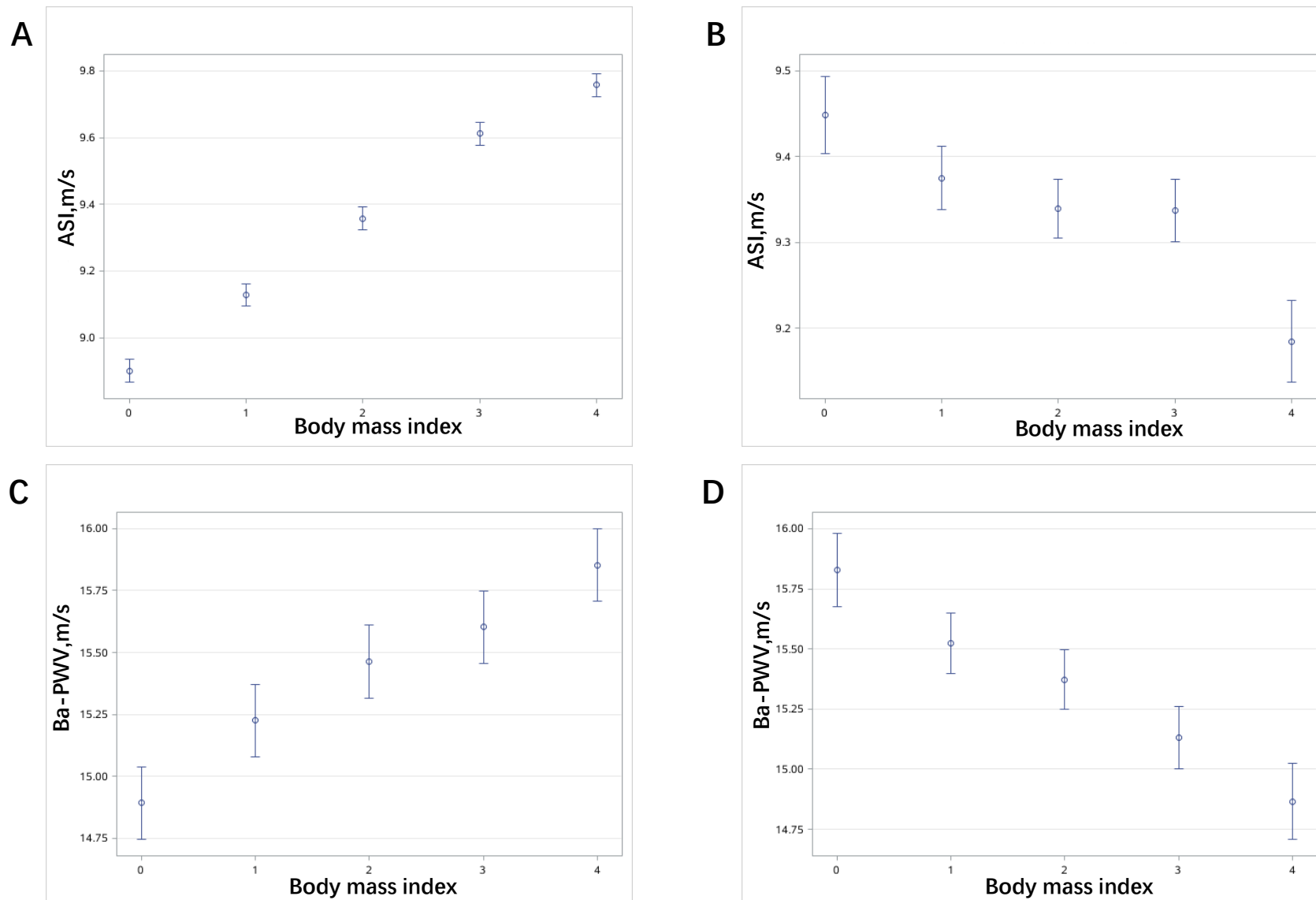


Fig.S2. Body mass index quintile-specific estimated marginal means of brachial-ankle pulse wave velocity(Ba-PWV) or arterial stiffness index(ASI) via analysis of covariance.

A. Model 1 in UK Biobank project; B. Model 2 in UK Biobank project; C. Model 1 in Fuqing cohort project; D. Model 2 in Fuqing cohort project; *Model 1 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, and LDL cholesterol; Model 2 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, LDL cholesterol, blood pressure, blood glucose, triglycerides, HDL cholesterol and WC/BMI .

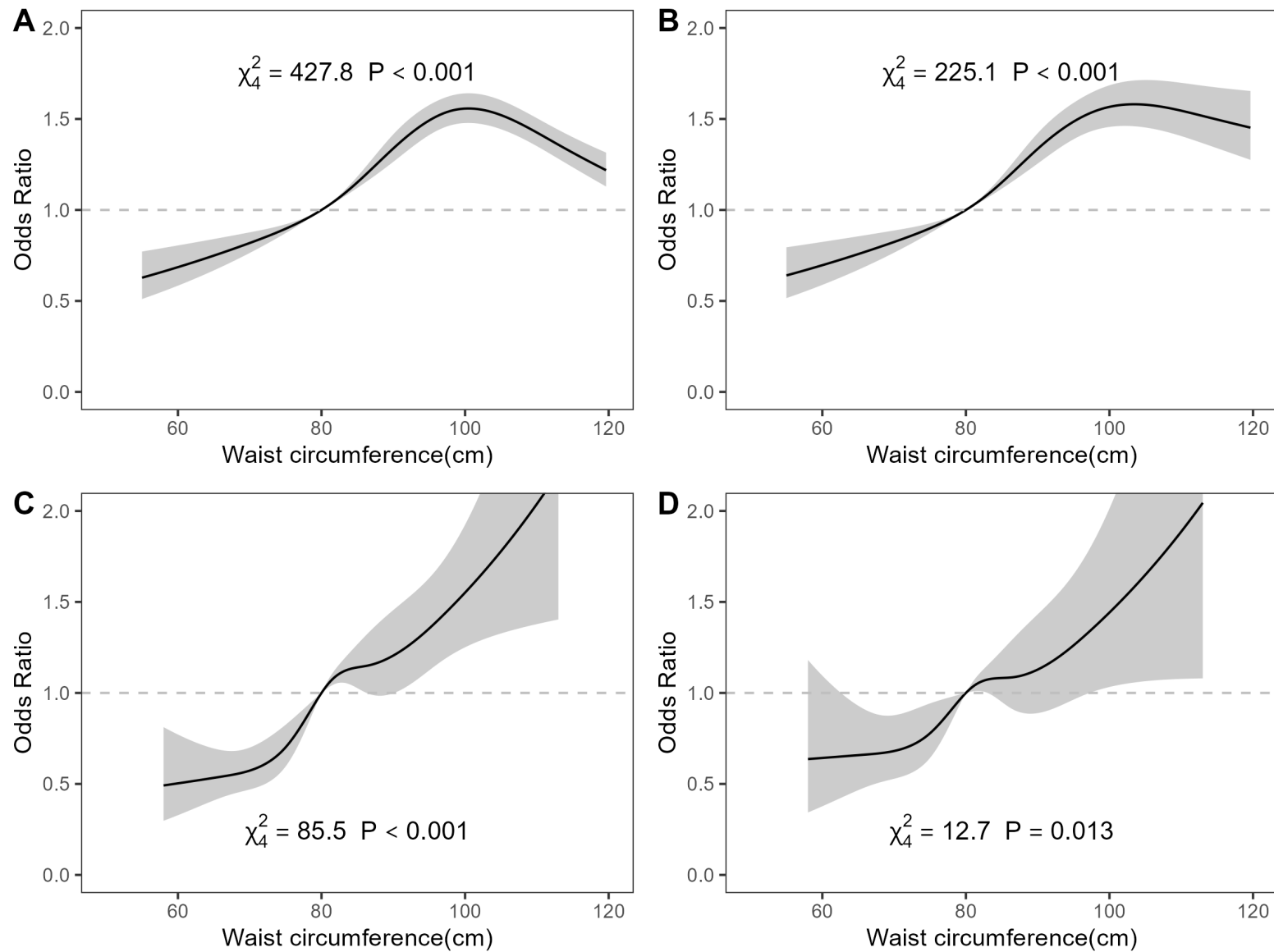


Fig.S3. Association between waist circumference and arterial stiffness via restricted cubic spline regression.

A. Model 1 in UK Biobank project; B. Model 2 in UK Biobank project; C. Model 1 in Fuqing cohort project; D. Model 2 in Fuqing cohort project; *Model 1 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, and LDL cholesterol; Model 2 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, LDL cholesterol, blood pressure, blood glucose, triglycerides, HDL cholesterol and WC/BMI .

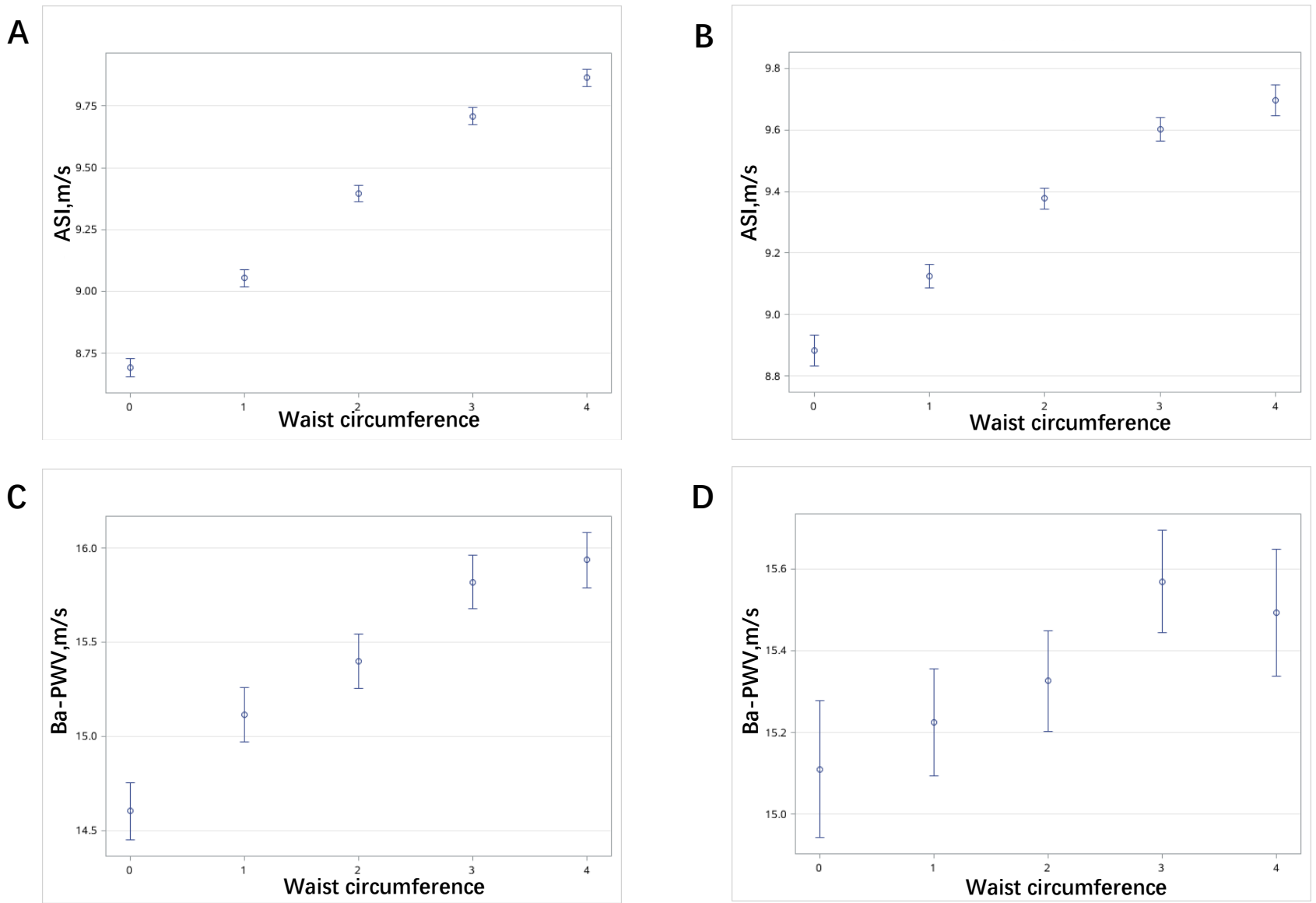


Fig. S4. Waist circumference quintile-specific estimated marginal means of brachial-ankle pulse wave velocity(Ba-PWV) or arterial stiffness index(ASI) via analysis of covariance.

A. Model 1 in UK Biobank project; B. Model 2 in UK Biobank project; C. Model 1 in Fuqing cohort project; D. Model 2 in Fuqing cohort project; *Model 1 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, and LDL cholesterol; Model 2 was adjusted for age, sex, education, smoking, alcohol intake frequency, physical activity, LDL cholesterol, blood pressure, blood glucose, triglycerides, HDL cholesterol and WC/BMI .

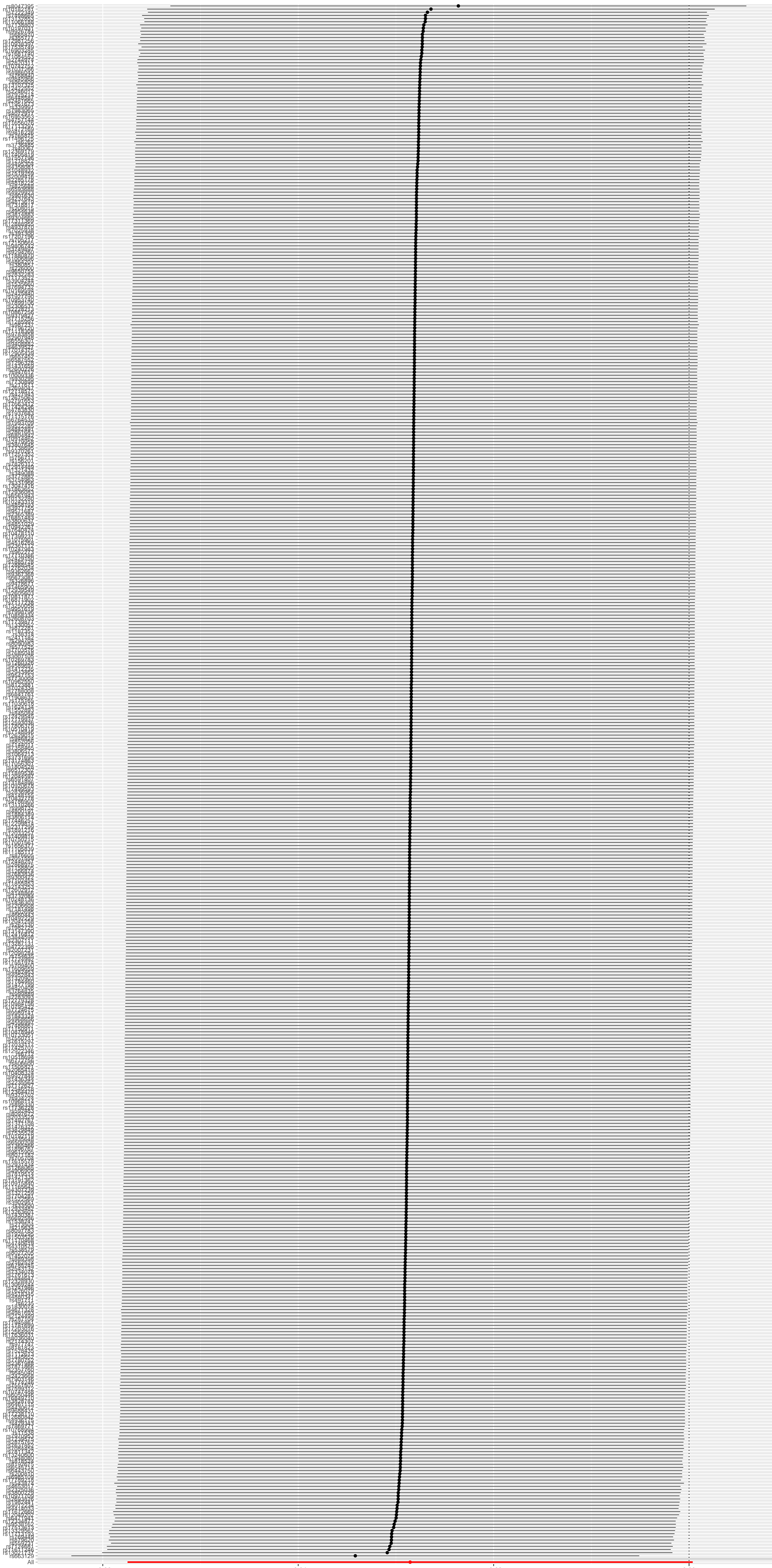


Fig.S5.MR leave-one-out sensitivity analysis for body mass index on arterial stiffness.

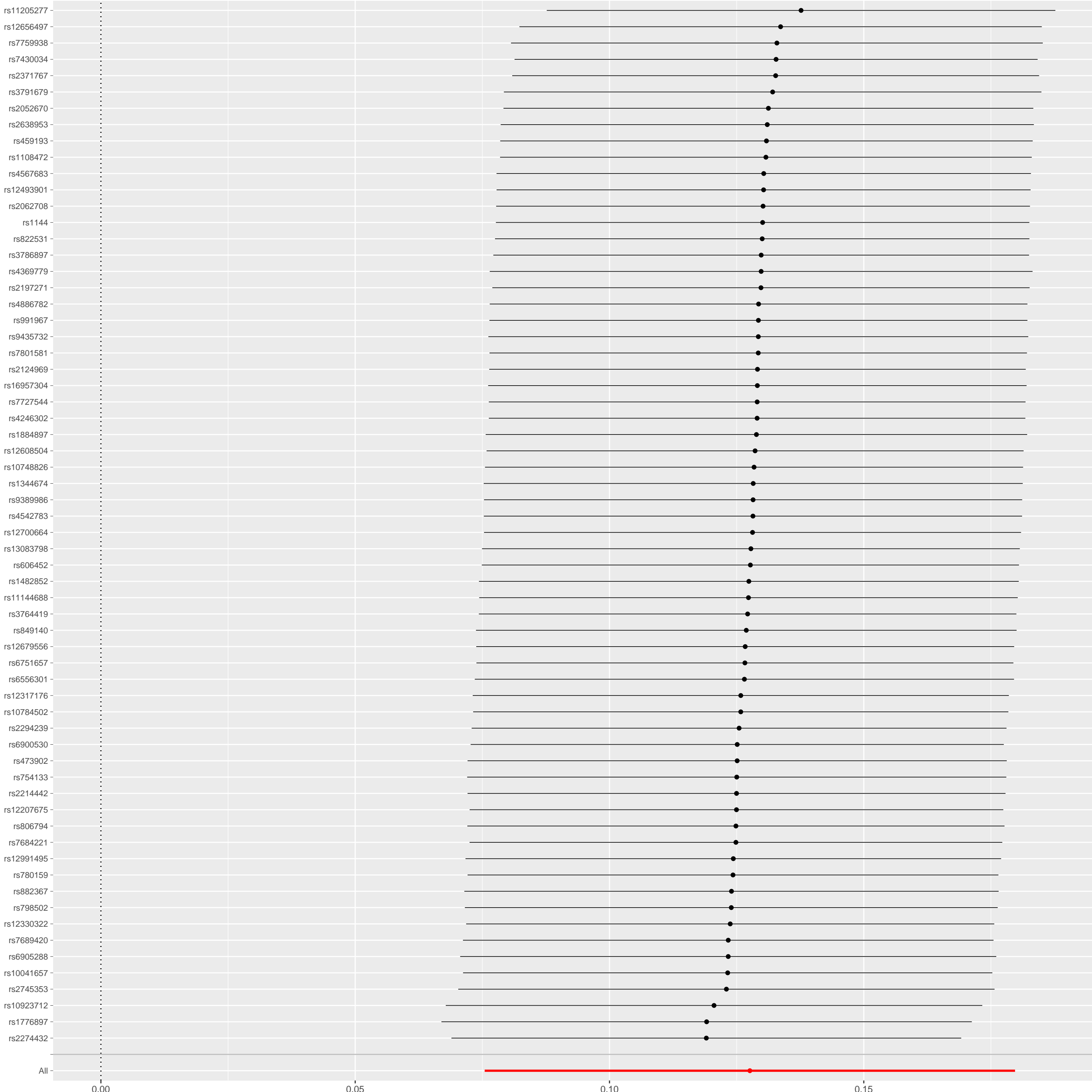


Fig.S6.MR leave-one-out sensitivity analysis for waist circumference on arterial stiffness.