

Correlates of body fat distribution: variation across categories of race, sex, and body mass in the Atherosclerosis Risk in Communities Study

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Though many central adiposity is a strong, independent risk factor for cardiovascular and all-cause mortality, relatively little is known about its determinants. To characterize the association of central adiposity with several of its possible determinants, while describing variability in these associations across sex, race, and level of body mass index, we conducted a cross-sectional survey of 15,800 white and African-American men and women ages 45 to 64 years participating in the Atherosclerosis Risk in Communities baseline survey, 1987 to 1989. After adjustment for other possible determinants, African Americans had markedly larger subscapular skinfold thicknesses and subscapular/triceps ratios than did whites, while whites had larger waist/hip ratios. Large, statistically significant variations in waist/hip ratio associations with age, percent of weight gained after age 25, smoking, and physical activity in the workplace existed across categories of sex, race, and body mass index. Based on our findings, we concluded that major variation exists in the waist/hip ratio and in its associations with its possible determinants across categories of race, sex, and obesity.

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