

Weight Gain and Extremity Function among the Elderly

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There is emerging evidence that weight gain from young adulthood to older adulthood is associated with decreased physical function; however, it is not known whether weight gain during middle to older adulthood is associated with decreased physical function, nor whether patterns differ by race or gender. This study assessed the association between weight gain from middle to older adulthood and decreased extremity function among 2,499 elderly African-American and white participants, ages 65 and older at baseline (1987), from the North Carolina Established Populations for the Epidemiologic Studies of the Elderly. Weight gainers had $\geq 8\%$ increase in weight from age 50 to baseline while weight maintainers had $< 8\%$ increase or decrease. Extremity function was assessed using 5 tasks: pulling/pushing large objects; stooping, crouching, kneeling; lifting/carrying over 10lbs; reaching above shoulder level; and writing, handling small objects. In logistic regression models, participants who gained weight had greater odds of extremity limitations (odds ratio (OR)=1.26; 95% CI=1.04, 1.53) after adjustment for age, gender, and race. Additional adjustment for marital status, education, and income attenuated this association (OR=1.20, 95% CI=0.96, 1.50), while the association was completely explained after further inclusion of health insurance, health perception, and co-morbidities (OR=1.04, 95% CI=0.82, 1.32). Effect modification by race and gender were not significant. In summary, weight gain from middle to older adulthood was associated with extremity limitations, with prominent causal intermediates (e.g. co-morbidities) explaining this association. Continued efforts to prevent weight gain and preserve extremity function among the elderly are needed.