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BIRTH WEIGHT AND CANCER IN ADULT FEMALES AFTER MIDDLE AGE

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Background: Birth weight has been associated with obesity, hypertension and diabetes in middle age, suggesting that adult metabolism may be affected by prenatal development. There is strong evidence of a relationship between cancer and adiposity in adulthood, but the association between birth weight and adult cancer is relatively under-investigated.

Methods: This analysis includes 441,768 British women who were recruited in middle age when they were invited to a national breast screening program between 1996 and 2000, and reported their birth weight information in a follow-up questionnaire approximately three years after recruitment. Cancer incidence was obtained through the national cancer registry. Cox regression was used to estimate the relative risk of five cancers (per incremental kilogram of birth weight) with case numbers larger than 1,000.

Results: After adjustment for age, year of birth, geographic regions and socioeconomic status, birth weight was associated with a small increase of the risk of colorectal cancer, but not with lung cancer, breast cancer, endometrial cancer, or ovarian cancer.

Conclusions: There is a small increase in colorectal cancer risk with increasing birth weight, but it is unclear whether this reflects social or biological factors.