

Overweight and obesity cause 6,000 cancers a year in UK women

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Following last week's report by the World Cancer Research Fund, evidence of the relevance of obesity to the risk of a wide range of cancers in UK women is published online by the BMJ today.

The study shows that overweight and obese women in the UK are at a higher risk of developing and dying from cancer. In fact, the researchers estimate that 5% of all cancers (about 6,000 annually) are attributable to being overweight or obese.

National survey data from the United Kingdom indicate that around 23% of all women in England are obese and 34% are overweight. Obesity is known to be associated with excess mortality from all causes combined, but less is known about its effects on cancer.

So Cancer Research UK researchers at Oxford University examined the relation between body mass index (BMI), cancer incidence and mortality in 1.2 million UK women aged between 50 and 64, who were recruited to the Million Women Study, a large cohort study of women in the UK.

Risks for all cancers, and for 17 specific types of cancer, were measured according to BMI and women were followed up for an average of 5.4 years for cancer incidence and 7 years for cancer mortality.

Women with a BMI of 25-29.9 were defined as "overweight" and women with a BMI of 30 or more as "obese," in accordance with the World Health Organisation's criteria.



Results were adjusted for factors such as age, socioeconomic status, smoking status, alcohol intake, physical activity, years since menopause, and use of hormone replacement therapy.

A total of 45,037 new cancers and 17,203 deaths from cancer occurred over the follow-up period.

Increasing body mass index was associated with an increased incidence of all cancers combined and for 10 out of the 17 specific types of cancer examined: endometrial cancer, adenocarcinoma (malignant tumor) of the oesophagus, kidney cancer, leukaemia, multiple myeloma, pancreatic cancer, non-Hodgkin's lymphoma, ovarian cancer and, in some age groups, breast and colorectal cancer.

In general, the relation between body mass index and mortality was similar to that for incidence.

The data also show that menopausal status is a key factor in the relation between body mass index and risk of cancer among women, not only for those cancers that are known to be hormonally related, such as breast and endometrial cancer, but also for other common cancers not generally thought to be mediated by hormones, such as colorectal cancer and malignant melanoma.

Based on these results, the authors estimate that, among postmenopausal women in the UK, 5% of all cancers (about 6,000 annually) are attributable to being overweight or obese. But the impact of being overweight or obese on cancer risk was much bigger for some cancers than for others.

For endometrial cancer and adenocarcinoma of the oesophagus in particular, body mass index represents a major modifiable risk factor, as about half of all cases are attributable to overweight or obesity, they



conclude.

In an accompanying editorial, Eugenia Calle of the American Cancer Society warns that the worldwide obesity epidemic shows no signs of abating, so insight into the mechanisms by which obesity contributes to the formation and progression of tumours is urgently needed, as are new approaches to intervene in this process.

Source: British Medical Journal

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