

PRESS RELEASE

Monday 7 November, 2016

ADULT WEIGHT GAIN COULD INCREASE CANCER RISK

SUBSTANTIAL WEIGHT GAIN over many years increases the risk of obesity-related cancers in men by 50 per cent and in women by almost 20 per cent, according to new research* presented at the National Cancer Research Institute's (NCRI) Cancer Conference in Liverpool, today (Monday).

Researchers at The University of Manchester and The Health eResearch Centre, looked at weight gain over many years and assessed the risk of developing obesity-related cancers.

This is a new way of looking at the long-term impact of being obese throughout a person's life and the link to developing cancer.

In the study of approximately 300,000 people in America, including around 177,500 men and 111,500 women, researchers categorised the population into five different lifetime weight trajectories**. They looked at changes in BMI between the ages of 18 and 65.

Some people gained a little weight between the ages of 18 and 65 years, while others became morbidly obese.

The population was then followed up for an average of 15 years to see who went on to develop obesity-related cancers.

It found that men who went from a BMI of around 22 to 27*** had a 50 per cent increased risk of developing obesity-related cancer compared to a man who stayed within a healthy weight range. And in men who went from being overweight to morbidly obese, the risk went up by 53 per cent compared to the same group.

Women who went from a BMI of 23 to around 32, had a 17 per cent increased risk in comparison to women whose weight started off in the healthy bracket and remained stable.

Of the 300,000 people in the study, there were around 9,400 women and 5,500 men who were diagnosed with obesity-related cancers after the age of 65.

Being overweight or obese is the second biggest preventable cause of cancer in the UK after smoking and contributes to around 18,100**** cases of cancer every year. It is linked to a range of cancer types including bowel, breast, and pancreatic.

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Several of the obesity-related cancer types can only affect women – for example, womb cancer and ovarian cancer.

Dr Hannah Lennon, lead author and researcher at The University of Manchester, said: “This research shows how important it is to look at weight gain over a person’s lifetime – to give a clearer picture of cancer risk through life compared to assessing someone’s BMI at a single point.

“This study could also be really useful in public health. It could help identify people who would benefit the most from taking action to control their weight before any health problems arise – including a cancer diagnosis.”

Sir Harpal Kumar, Cancer Research UK's chief executive said: “This is a really interesting way to look at lifetime risk of obesity-related cancers and helps us understand the effects of weight gain over time.

“It’s important that people are informed about ways to reduce their risk of cancer. And while there are no guarantees against the disease, keeping a healthy weight can help you stack the odds in your favour and has lots of other benefits too. Making small changes in eating, drinking and taking exercise that you can stick with in the long term is a good way to get to a healthy weight – and stay there.”

Dr Karen Kennedy, Director of the NCRI, said: “This study provides a deeper understanding of the health implications caused by the obesity epidemic. It helps paint the picture of how risk could accumulate over time for different people, and could provide health professionals with a means to assess an individual’s risk.”

This work is funded by Cancer Research UK as part of the National Awareness and Early Diagnosis Initiative (NAEDI). Supported by the Farr Institute and linked with the new NIHR Manchester BRC Cancer Prevention and Early Detection theme.

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Notes to editor

* NCRI abstract: Lifetime BMI trajectories and obesity-related cancer risk in a US retrospective cohort study

<http://abstracts.ncri.org.uk/abstract/lifetime-bmi-trajectory-classes-and-obesity-related-cancer-risk-in-a-us-retrospective-cohort-study/>

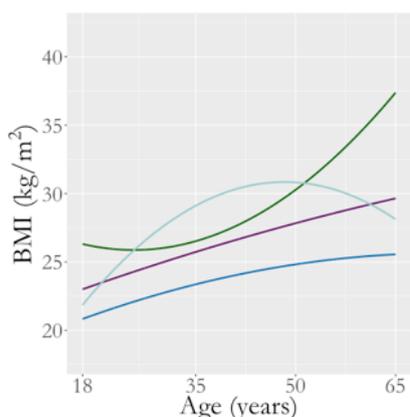
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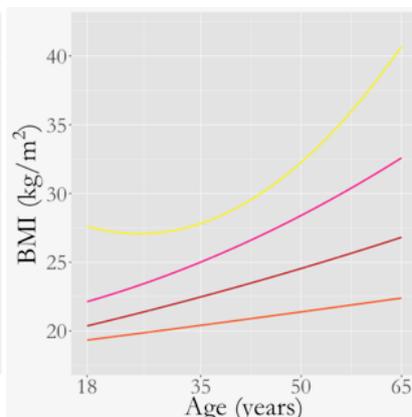
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Men



Women



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Trajectories in men	Percentage of male population in category	Increased lifetime risk of obesity-related cancers
Lean moderate increase (healthy)	68	
Lean marked increase	25	24 per cent
Medium marked increase	4	50 per cent
Heavy increase	3	53 per cent

Trajectories in women	Percentage of women population in category	Increased lifetime risk of obesity-related cancers
Lean stable	33	
Lean moderate increase	41	7 per cent
Lean marked increase	21	17 per cent
Heavy increase	3	16 per cent

*** A BMI of between 18.5 and 25 kg/m² is considered a healthy weight; between 25-30 is overweight; over 30 is obese.

For men, this is equivalent to an extra 2.5 stone increase for the average height man of 177cm between the ages of 18 and 65, because even the 'normal/reference' trajectories allows for a little weight gain as we age. This is the lean marked category compared to lean moderate category.

For women example, this is the lean marked category compared to lean stable category.

**** Calculated by the Statistical Information Team at Cancer Research UK, the estimated population attributable fractions overweight and obesity for cancer cases (ICD10 C00-C97, excl. C44) in the UK in 2011 using Parkin, D. M. & Boyd, L. Overweight and obesity-attributable cancer burden in the UK in 2010. Br J Cancer 2011;105 (S2):S6-S13.

About the NCRI

The National Cancer Research Institute (NCRI) is a UK-wide partnership of cancer research funders, established in 2001. Its 19 member organisations work together to accelerate progress in cancer-related research through collaboration, to improve health and quality of life.

NCRI works to coordinate research related to cancer, to improve the quality and relevance of the research and to accelerate translation of the research into clinical practice for the benefit of patients.

NCRI Partners are: Biotechnology and Biological Sciences Research Council; Bloodwise; Breast Cancer Now; Cancer Research UK; Children with Cancer UK, Department of Health; Economic and Social Research Council (ESRC); Macmillan Cancer Support; Marie Curie; Medical Research Council (MRC); Northern Ireland Health and Social Care Public Health Agency (Research & Development Department); Pancreatic Cancer Research Fund; Prostate Cancer UK; Roy Castle Lung Cancer Foundation; Scottish Government Health Directorates (Chief Scientist Office); Tenovus Cancer Care; The Wellcome Trust; Welsh Assembly Government (Health and Care Research Wales); and Worldwide Cancer Research.

For more information visit www.ncri.org.uk

About the NCRI Cancer Conference

The NCRI Cancer Conference is the UK's largest cancer research forum for showcasing the latest advances in British and international oncological research spanning basic and translational studies to clinical trials and patient involvement.

- The conference offers unique opportunities to network and share knowledge by bringing together world-leading experts from all cancer research disciplines.
- The NCRI Cancer Conference is taking place from 6-9 November 2016 at the BT Convention Centre in Liverpool.
- For more information visit conference.ncri.org.uk; Twitter @NCRI_Partners; #NCRI2016

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