

PRESS RELEASE

Wednesday 4 November, 2015

NATURALLY HIGH OESTROGEN LEVELS MAY LOWER WOMEN'S BOWEL CANCER RISK AFTER MENOPAUSE

WOMEN with naturally higher levels of the sex hormone oestrogen are more than 50 per cent less likely to develop bowel cancer after their menopause than women with low levels, according to research* presented at the National Cancer Research Institute (NCRI) Cancer Conference this week.

Researchers from Imperial College London studied a group of 1,200 women from the Women's Health Initiative clinical trial to look at the levels of sex hormones, like oestrogen, in their blood and whether they went on to develop bowel cancer.

In the UK one in 19 women will develop bowel cancer in their lifetime.

Women with the highest levels of oestrone**, the main form of oestrogen after menopause, had a 56 per cent lower risk of developing the disease, compared with women with the lowest levels.

They also found that women with the highest levels of sex hormone-binding globulin (SHBG)*** – a protein which carries sex hormones around the body – were two and a half times more likely to develop bowel cancer than women with the lowest levels.

This may be because SHBG binds and inactivates hormones so they cannot act on the body.

The researchers only studied women who were not receiving hormone replacement therapy (HRT) so they could find how natural levels of the hormones affected cancer risks.

Bowel cancer is the fourth most common cancer in the UK, with around 41,600 people – and around 18,400 women - diagnosed with the disease each year. Around 95 per cent of cases are in people aged 50 and over.

Lead author Dr Neil Murphy, epidemiologist from Imperial College London, said: "This important research is the first time we've seen strong links between sex hormones, SHBG and the risk of developing bowel cancer – which raises a lot of questions. We need more research to look into these links more closely, but our results offer intriguing insights into the biology of this common cancer.

"By tracking older women's hormone levels we could find those at higher and lower risk of bowel cancer, and we may one day be able to tailor the amount of screening women are offered based on this information."

Professor Matt Seymour, NCRI clinical research director, said: "Bowel cancer survival has doubled in the last 40 years thanks to scientists translating their findings into better treatment. But much more needs to be done. And research like this which aims to understand the biology of the disease and the role hormones play could reveal vital new clues to help doctors and scientists tackle the disease."

The work was funded by the US National Institutes of Health and the National Heart, Lung, and Blood Institute.

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Notes to Editors:

* Read the full abstract: <http://abstracts.ncri.org.uk/abstract/a-prospective-evaluation-of-endogenous-sex-hormone-levels-and-colorectal-cancer-risk-in-postmenopausal-women-2/>

** High levels of oestrone above 57.28 pg/mL versus low levels of oestrone below 32.5 pg/mL.

*** High levels of SHBG above 60.4 nmol/L versus low levels of SHBG below 29.7 nmol/L.

About the NCRI

The National Cancer Research Institute (NCRI) was established in 2001. It is a UK-wide partnership between cancer research funders which promotes collaboration in the field. Its member organisations work together to maximise the value and benefits of cancer research for patients and the public.

NCRI members are: Biotechnology and Biological Sciences Research Council; Bloodwise (formerly Leukaemia & Lymphoma Research); Breast Cancer Now; Cancer Research UK; Children with Cancer UK, Department of Health; Economic and Social Research Council; Macmillan Cancer Support; Marie Curie; Medical Research Council; Northern Ireland Health and Social Care Public Health Agency (Research & Development Department); 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 (formerly AICR).

For more information visit www.ncri.org.uk

About the NCRI Cancer Conference

The NCRI Cancer Conference is the UK's major forum for showcasing the best British and international cancer research.

- The Conference offers unique opportunities for networking and sharing knowledge by bringing together world-leading experts from all cancer research disciplines.
- The NCRI Cancer Conference is taking place from 1–4 November 2015 at the BT Convention Centre in Liverpool.
- For more information visit conference.ncri.org.uk



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