

New insights into links between stress and cancer

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(Medical Xpress) -- Trinity College Dublin researchers have discovered that blocking a particular stress response can significantly reduce the metastasis (or spread) of breast cancer.

The research published today in the [Journal of Clinical Oncology](#) by Dr Ian Barron, a HRB Postdoctoral Fellow in [Pharmacology](#) and Therapeutics at Trinity College Dublin looked at women diagnosed with breast cancer in Ireland between 2000 and 2007. Using data from the National Cancer Registry, and the HSE Primary Care Reimbursement Services, they found that those taking drugs that blocked a particular hormone related stress pathway had a much lower risk of dying from their cancer.

According to Dr Barron, “For patients with cancer, higher levels of stress are associated with more frequent disease recurrence, faster disease progression and higher rates of death from cancer. Some lab based studies have suggested how stress hormones such as adrenaline and noradrenaline, could play a role in this process. Ours is the first study in humans to show that blocking this [stress response](#) significantly reduces the risk of cancer spreading or metastasising. Because the majority of all cancer deaths are due to the growth of tumour metastases, this research could have significant implications for clinical practice.”

The research found that when compared to control groups:

- Women taking the stress hormone blocking drugs in the year prior to

their cancer diagnosis were less likely to be diagnosed with invasive or metastatic [breast cancer](#) than women who were not taking it.

- Women continuing to take the drug after their diagnosis were considerably less likely to die from the disease in the 5 years following diagnosis.

Enda Connolly, Chief Executive of the Health Research Board adds, “This is a great example of the high quality health research conducted in Ireland. As the findings clearly demonstrate, it has positive implications for patient care and patient outcomes and could have major international impact.”

More information: Published paper: [jco.ascopubs.org/content/early ... 010.33.5422.abstract](https://jco.ascopubs.org/content/early/2011/06/01/jco.2010.33.5422.abstract)

Provided by Trinity College Dublin

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