

# Cups against breast cancer

**Common pharmacy medications and supplements may have an impact in breast cancer survival, the Irish Cancer Society has found, as the charity launches its latest campaign to mark Breast Cancer Awareness Month this October.**

*Women who take vitamin D after being diagnosed with breast cancer may have an increased chance of survival, new research supported by the Irish Cancer Society has shown.*

**R**esearchers from the Irish Cancer Society cancer research centre, BREAST-PREDICT, analysed data from almost 5,500 breast cancer patients and found that taking vitamin D supplements after diagnosis was associated with an increased relative survival of 20% compared to

those who did not. The study was led by cancer researchers based at RCSI (Royal College of Surgeons in Ireland).

The findings were revealed as breast cancer researchers, survivors, and broadcaster Miriam O'Callaghan launched *Cups Against Breast Cancer*, an Irish Cancer Society fundraising campaign which aims to raise money for breast cancer research and support services.

The launch was held in Dublin's St Stephen's Green as a family fun day held to celebrate five years of BREAST-PREDICT.

RTÉ broadcaster Miriam O'Callaghan was joined by breast cancer survivors (from left) Valerie Gaynor from Crumlin Road, Sarah Murray from Malahide and Kay McKeon from Glenageary for the launch of *Cups Against Breast Cancer*.  
Picture: Andres Poveda.







LEFT: Irish Cancer Society Chief Executive Averil Power and Professor Kathleen Bennett are pictured with RTÉ broadcaster Miriam O'Callaghan in St Stephen's Green for the launch of *Cups Against Breast Cancer*, an Irish Cancer Society fundraising campaign which asks the public to hold coffee mornings in October to raise vital funds for breast cancer research and free support services. *Picture: Andres Poveda.* BELOW: BREAST-PREDICT researchers Lisa Dwane and Sinead Toomey join Miriam O'Callaghan for the launch of the Irish Cancer Society's *Cups Against Breast Cancer* Campaign. *Picture: Andres Poveda.*



Head of Research at the Irish Cancer Society, Dr Robert O'Connor, said, "This research is an example of the vital work of BREAST-PREDICT, made possible by the country's support of fundraising campaigns like *Cups Against Breast Cancer*. Since the Irish Cancer Society established BREAST-PREDICT five years ago, we've funded the work of over 50 breast cancer researchers across the country. That's meant a €7.5 million investment that's only been possible through the public's generous donations. The Irish Cancer Society can only invest in cancer research because of this support. Throughout October, we're asking the public to continue this support by hosting a *Cups Against Breast Cancer* coffee morning to raise funds for breast cancer research and free patient support services."

Breast cancer is the second most common cancer affecting women in Ireland and every year over 3,100 women are diagnosed with the disease. The vast majority of women diagnosed with breast cancer are aged 50 – 64 (41%), but younger women are also affected, with 23% of diagnosis occurring in women under 50.

The number of breast cancer survivors are increasing, with 83% of those with a breast cancer diagnosis now living five years and beyond. However, around 700 women in Ireland die from breast cancer each year.

This research was led by RCSI researcher Dr Jamie Madden, under the supervision of Professor Kathleen Bennett, Associate Professor in Pharmacoepidemiology at RCSI Dublin. For the research, anonymised data on the pharmacy claims of almost 5,500 women with breast cancer aged 50 – 80 between 2000 and 2011 was provided by the National Cancer Registry of Ireland.

Professor Bennett said, "Previous studies have found that higher blood levels of vitamin D, which can come from our diet, sunlight or supplements, is associated with increased breast cancer survival. Our study suggests that vitamin D supplementation might be useful for women diagnosed with breast cancer. Large clinical trials are already

underway overseas to look into this further." The research team's findings were recently published in the journal, *Breast Cancer Research and Treatment*.

While the findings are significant, the researchers did not have access to information on other measures from the women that could possibly impact their likelihood of better outcome. For example, increasingly, studies are showing that moderate physical activity and maintaining a healthy diet can benefit a patient undergoing cancer treatment, but this was not collected in this study.

The research also found vitamin D users to be younger on average, be less likely to smoke and have lower tumour stage and tumour grade





BREAST-PREDICT researchers join Miriam O'Callaghan and CEO of Irish Cancer Society Averil Power for the launch of the Irish Cancer Society's *Cups Against Breast Cancer* Campaign. Picture: Andres Poveda.



progression compared to non-users, all factors more likely to be associated with better survival.

Dr O'Connor added, "Before rushing out to buy vitamin D supplements, we urge women with breast cancer to first talk to their medical team. Vitamin D use can cause health issues and each woman's cancer is unique and will require personalised treatment. While this is an important preliminary study, the findings only show an association, and not causal link. We will only know if vitamin D supplementation should be recommended to improve breast cancer treatment outcome in the coming years when the results of clinical trials emerge."

As well as Vitamin D use, BREAST-PREDICT researchers have also studied whether two common drugs – aspirin and statins – may have an effect on the survival of breast cancer patients.

In 2015, researchers funded by the Health Research Board and Irish Cancer Society discovered that women who had been prescribed aspirin regularly before being

diagnosed with breast cancer are less likely to see that cancer spread outside the breast. These women are also less likely to die from their breast cancer. The study of Irish patients was published by the American Association for Cancer Research in the *Journal, Cancer Research*.

According to Dr Ian Barron, the lead author who carried out the research at Trinity College Dublin, who is now working at Johns Hopkins, USA, their findings suggest, "that aspirin could play a role in reducing mortality from breast cancer by preventing the cancer spreading to nearby lymph nodes. We analysed data from 2,796 women with stage I-III breast cancer. We found that those women prescribed aspirin in the years immediately prior to their breast cancer diagnosis were statistically significantly less likely to present with a lymph node-positive breast cancer than non-users. The association was strongest among women prescribed aspirin regularly and women prescribed higher aspirin doses. We now need to establish how and why this is the case.

"Our study was observational and these results do not mean that women should start taking aspirin as a precautionary measure. Aspirin can have serious side-effects. We still need to identify exactly how aspirin may prevent breast cancer from spreading to the lymph nodes and which women, or types of breast cancer, are most likely to benefit from taking aspirin, as well as what the optimum doses might be."

Statin drugs are widely used for the reduction of blood cholesterol levels and prevention of cardiovascular disease. Some recent studies have suggested that these drugs may have other affects in the body such as a potential treatment for breast cancer. The results of these previous studies do not always agree, and to date, it is not clear whether women could benefit from starting statin therapy after a breast cancer diagnosis.

To try and answer this question, PhD student Amelia Smith, a member of the BREAST-PREDICT epidemiology team led by

Professor Bennett, analysed information from over 4,000 Irish breast cancer patients, including the medications they receive to determine whether women who started statin treatment after a breast cancer diagnosis were more or less likely to die from breast cancer.

Amelia's research found that starting statin therapy did not cause a significant reduction in deaths due to cancer. However, the potential effect of statin therapy on breast cancer remains interesting and is being pursued in further studies.

*In order to continue research like Amelia's, this October the Irish Cancer Society is asking members of the public to hold a *Cups Against Breast Cancer* coffee morning and support the fight against breast cancer. Money raised will fund breast cancer research and free services to support breast cancer patients and their families. So get your cups out for a good cause this October and host a *Cups Against Breast Cancer* coffee morning. For more information, see [www.cancer.ie/cupsagainstcancer](http://www.cancer.ie/cupsagainstcancer).*