

## Women's College Hospital offers Jewish women genetic screening for breast cancer

**TORONTO** (Dec. 14, 2009) – In a new research study conducted at Women's College Research Institute, approximately one per cent of Jewish women in Ontario were found to carry a genetic mutation that significantly increases their risk of developing both breast and ovarian cancer. More than half of the women who were found to have a mutation were not eligible for genetic testing based on the current provincial guidelines.

The study, to be published online on Monday, Dec. 14 in the *Journal of Clinical Oncology*, asked whether or not women in the Jewish community were interested in genetic testing, even if they had no personal or family history of cancer. Of the 2,080 women who applied to be research subjects, 22 were found to have a BRCA1 or BRCA2 genetic mutation. Genetic testing was then offered to their sisters and adult daughters. None of these women had previously been referred for genetic screening by their health-care providers.

Currently, women are only eligible for genetic testing for BRCA1 and BRCA2 in Ontario if they have been referred by a physician due to a strong family history of the disease or their own personal history of breast or ovarian cancer.

"Our study identified two major concerns with current breast cancer screening guidelines," says Dr. Kelly Metcalfe, adjunct scientist at the Women's College Research Institute and associate professor at the University of Toronto. "The first is that over half of the women we identified with a mutation would never have known that they were at an increased risk of cancer because they were not eligible for genetic testing outside of this study. The second concern was that although 45 per cent of the women with mutations were eligible for genetic testing based on their family history of cancer, none were referred by their health-care provider for screening. Over 95 per cent of the women who participated in the research were satisfied with the testing process."

"More than 2,000 Jewish women with a low risk of carrying a mutation enrolled in the study within two weeks, showing a considerable interest for genetic testing among this population," adds Dr. Steven Narod, senior scientist at the Women's College Research Institute and Canada Research Chair in breast cancer. "We believe that genetic screening should be available to all Jewish women so we can prevent breast and ovarian cancers from striking those with a genetic predisposition."

With the support of the Women's College Hospital Foundation, the study is being extended to include up to 5,000 additional Jewish women. It will offer genetic screening, through a saliva DNA test, for three inherited breast cancer gene mutations that are common to those of

Ashkenazi Jewish ancestry. About 40 per cent of ovarian cancers in Jewish women and 12 per cent of breast cancers are the result of these three mutations, and are potentially preventable.

A range of medical options are available for women who carry a BRCA1 or BRCA2 genetic mutation that can help prevent the onset of disease, including:

- Preventive drug therapies include taking a medication called tamoxifen for five years. This is believed to lower the chances of developing breast cancer for women at high risk.
- Use of oral contraceptives can reduce the chance of developing ovarian cancer.
- Preventive surgeries include removal of the breast(s) and removal of the ovaries.

To take part in the study, adult Jewish women in Ontario with or without a known family history of breast or ovarian cancer can contact Women's College Hospital at 416-351-3795 or visit the website at [www.womensresearch.ca/jewishstudy](http://www.womensresearch.ca/jewishstudy).

The program is part of Women's College Hospital's ongoing research and results of the screening will be evaluated by the investigators.

This study was supported by funding from the Canadian Breast Cancer Research Alliance and Maj for Mammaries.

### **About Women's College Research Institute**

Women's College Hospital has established Canada's largest research institute dedicated solely to generating knowledge about women's health. Called the Women's College Research Institute (WCRI), it is leading the charge in breakthrough research and charting the path globally in new developments.

Over the past decade, WCRI's work has had a substantial impact worldwide. Breech births are safer because of its research. Women's College Hospital is a world leader in understanding the genetics of breast and ovarian cancers. And it is now possible to identify the potential for osteoporosis in young women.

Today, as Canada's only facility that tests women's health-care innovations within an ambulatory care community, WCRI continues to break new ground as it focuses on key areas of women's health and sex- and gender-based medicine: women and violence, mental health, genetics and cancer, obstetrics, osteoporosis, diabetes, and HIV/AIDS.

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