

## Preventive oophorectomy reduces risk of death by 77 per cent for women with BRCA gene mutation

TORONTO, ON, February 24, 2014 —Women who carry a BRCA gene mutation and opt for a preventive oophorectomy, or ovary removal surgery, have a 77 per cent lower risk of death than those who do not, according to a new study led by Women's College Hospital's Amy Finch and Dr. Steven Narod.

Research has long shown that preventive oophorectomy reduces the risks of ovarian and breast cancers in women with a BRCA gene mutation, but the best age for women to have the surgery and its impact on mortality has not been well studied. The findings by Finch and colleagues, published today in the *Journal of Clinical Oncology*, are the first to look at these effects among a large cohort of women over a nearly six-year followup period.

"Scientific evidence clearly shows removal of a woman's ovaries and fallopian tubes is very effective in preventing both breast and ovarian cancer in women with a BRCA mutation," said Finch, a researcher at Women's College Research Institute and the study's lead author. "But the real question has been at what age these women should have the surgery to best diminish their chance of developing cancer."

In the study, researchers evaluated the effect of a preventive oophorectomy in reducing death and the risk of ovarian, fallopian tube or peritoneal cancer in 5, 783 women with a BRCA gene mutation. They found the surgery was associated with:

- An 80 per cent reduction in the risk of ovarian, fallopian and peritoneal cancer
- A 77 per cent lower risk of death from all causes and
- A 68 per cent lower risk of death from all causes in women who previously had breast cancer

"Our study supports the notion that women who carry a BRCA gene mutation will have a much lower risk of developing or dying from cancer if they have an oophorectomy at age 35," said Dr. Steven Narod, a co-author of the study and senior scientist at Women's College Research Institute. "If a woman with a BRCA1 mutation opts to delay the surgery until age 40 or 50, her chance of developing ovarian, fallopian tube or peritoneal cancers jumps to 4 and 14.2 per cent, respectively."

While oophorectomy is a safe procedure, it can carry some complications, including premature menopause.

"After an oophorectomy, the long-term effects on a woman's cardiovascular health and her bone health are less well known, and further research is needed," Finch added.

Finch and Dr. Narod, along and colleagues from Women's College Hospital and the University Health Network, are now examining these potential impacts in a new study to gain a better understanding of the risks of a preventive oophorectomy for women with a BRCA mutation.

While the decision to undergo oophorectomy is life altering, particularly for young women, these findings showing the clear benefit of this surgery on cancer risk and mortality and will strengthen the recommendation for this surgery, the researchers said.

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