



Hereditary Breast and Ovarian Cancer:

UHN

A Patient Information Sheet



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Please visit the UHN Patient Education website for more health information:
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What is hereditary cancer?

- Hereditary cancer means that a tendency to getting cancer “runs” in the family and may be passed from generation to generation.

What cancers are seen in these families?

- Breast
- Ovarian
- Prostate

These are the most common cancers, but sometimes other cancers are seen such as: pancreatic cancer, melanoma and male breast cancer.

How common are these cancers in the general population?

- 1 in 9 women will be diagnosed with breast cancer during her lifetime.
- 1 in 70 women will be diagnosed with ovarian cancer during her lifetime.
- 1 in 6 men will be diagnosed with prostate cancer during his lifetime.
- 1 in 1000 men will be diagnosed with breast cancer during his lifetime.

How often are these cancers hereditary?

- 5 to 10% of all breast and ovarian cancers are hereditary; the remaining 90 to 95% are not.

How can an increased risk for breast and ovarian cancer be inherited?

- Genes are the instructions that tell our bodies how to grow and develop.
- We have two copies of every gene.
- We get one copy of every gene from our mother and one from our father.
- BRCA1 and BRCA2 are two different genes that help protect us from getting cancer.
- If you have a change (mutation) in one copy of your BRCA1 or BRCA2 gene, your chances of getting some but not all types of cancer will be increased.
- Both men and women can have a BRCA1 or BRCA2 mutation.
- If you have a BRCA1 or BRCA2 mutation there is a 50% chance you could pass this mutation on to each of your children.

What does genetic testing for BRCA1 and BRCA2 mutations involve?

- Testing is paid for by OHIP for eligible families.
- Testing is also available through a private company for a fee.
- Some research studies offer testing at no charge.
- A blood sample and detailed informed consent must be given.

What are some benefits and risks of genetic testing?

- May help you understand your personal risk of getting cancer.
- Allows preventive and screening measures to be tailored specifically to you.
- May reduce anxiety.
- May help you make informed decisions about your health care.
- May be emotionally difficult.
- May change family relationships.
- May indirectly provide the results of another family member.

What are the chances of getting cancer if I have a BRCA1 or BRCA2 mutation?

- 40-70% lifetime chance of getting breast cancer (women).
- 10-40% lifetime chance of getting ovarian cancer (women).
- 20-40% lifetime chance of getting prostate cancer (men).

There may also be a greater chance of getting other cancers such as: pancreatic cancer, melanoma and male breast cancer. It is important to remember that not all people who have a mutation in BRCA1 or BRCA2 will develop cancer.

What can I do if I have an increased chance of developing cancer?

Below is a summary of some of these options for ovarian, breast and prostate cancer. Not every option may be right for you depending on your age, stage of life, or if you have had cancer before.

For ovarian cancer:

- Screening (pelvic or transvaginal ultrasound and a CA125 blood test).
- Oral contraceptives (birth control pill).
- Prophylactic salpingo-oophorectomy (surgical removal of ovaries and fallopian tubes).

For breast cancer:

- Screening (clinical breast exams, mammograms, and MRIs).
- Medications such as tamoxifen.
- Prophylactic salpingo-oophorectomy (surgical removal of ovaries and fallopian tubes).
- Prophylactic mastectomy (surgical removal of the breasts).

For Prostate cancer:

- Screening (digital rectal exam and PSA blood test).

The content of this pamphlet is intended as general information and is not comprehensive. It is also not intended to replace genetic counselling. If you have any further questions, please feel free to contact us at (416) 9462270.