

## Surgery to Lower Your Risk of Ovarian Cancer

### *Risk-reducing oophorectomy*

*This handout answers common questions about having surgery to lower your risk of ovarian cancer.*

### What is risk-reducing oophorectomy?

*Risk-reducing oophorectomy* is surgery to remove your ovaries to lower your risk of ovarian cancer. It is also called a *prophylactic oophorectomy*.

### Who should have this surgery?

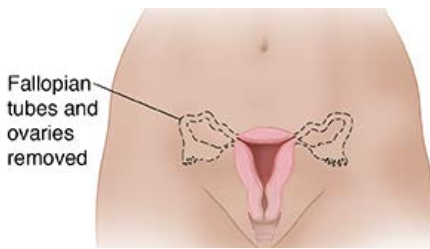
About 1 out of 58 (1.7%) of women who live to be 90 years old get ovarian cancer. For most women, their risk of getting the disease is not high enough to justify having this surgery. Even women with a very high risk of ovarian cancer may choose not to have this surgery.

You may want to consider this surgery **if you do not want to have any more children** and:

- Several close female relatives, such as your mother, sisters, grandmothers, or aunts:
  - Had ovarian cancer (at any age)
  - Had breast cancer before age 50.
- You have close relatives who had uterine cancer or colon cancer before age 50.
- Tests show that you have a harmful change (*mutation*) in a gene that is linked to cancer. Two of these genes are BRCA1 and BRCA2.
- You have a high risk of breast cancer. Studies show that having this surgery lowers the risk of breast cancer by 50% in women who have a high risk for breast cancer.



*Talk with your provider if you have any questions or concerns about your health.*



*In a risk-reducing salpingo-oophorectomy, the surgeon removes both the ovaries and the fallopian tubes.*

## About Risk-Reducing Oophorectomy

The goal of this surgery is to remove ovarian tissue that is likely to develop cancer. But, most women who are at risk for ovarian cancer are also at risk of getting cancer in their *fallopian tubes*. These tubes connect the ovaries to the uterus.

Studies show that removing both the ovaries and the fallopian tubes lowers the risk of ovarian cancer by 95%. This is why we will remove your fallopian tubes when we remove your ovaries. The full name of this surgery is *risk-reducing salpingo-oophorectomy*.

But, this surgery does not protect you from all types of cancer. Most women who have a high risk for ovarian cancer also have a higher risk for *peritoneal* cancer. This is a rare disease that starts in the lining of the abdomen.

## Common Questions About Risk-Reducing Oophorectomy

### ***What is my actual risk of developing ovarian cancer?***

Studies show that most women believe their risk of ovarian cancer is much higher than it actually is. But, certain factors may increase your risk. Specialists at the Cancer Genetics Clinic or at the Breast and Ovarian Cancer Prevention Program can help you understand your actual risk.

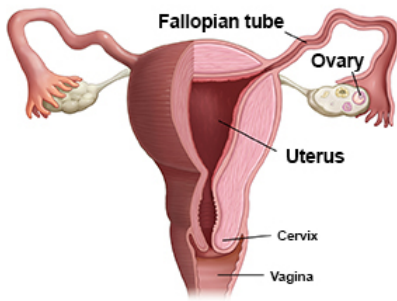
### ***What are the other ways I can prevent ovarian cancer or find it early?***

Ask your doctor whether these options would be helpful for you.

- **Have regular screenings.** These tests can find ovarian cancer at an early, more curable stage. Read our handout “Breast and Ovarian Cancer: Screening and Detection” to learn more. (Please note that pap smears check for cervical cancer, but not for ovarian cancer.)
- **Take birth control pills.** Studies show that taking birth control pills for more than 5 years lowers the risk of ovarian cancer for most women.
- **Have a tubal ligation.** Studies show that “having your tubes tied” (a form of permanent birth control) lowers the risk of ovarian cancer for most women.

Please know that these options may not help protect high-risk women from getting cancer.

To learn more, read our handouts “Reducing Your Risk of Breast and Ovarian Cancer” and “Breast and Ovarian Cancer: Screening and Detection.”



The very bottom of the fallopian tube is embedded in the uterus.

### ***Should I have a hysterectomy at the same time?***

Some women choose to have their uterus removed (a *hysterectomy*) at the same time as their oophorectomy. This is because part of each fallopian tube is embedded in the uterus. We do not know of any cancers that have started in this part of the tube. But, if you have a high risk of getting cancer in the fallopian tube, your doctor may advise a hysterectomy.

Women who are at high risk of getting uterine cancer do benefit from having a hysterectomy to lower this risk. But, having both an oophorectomy and a hysterectomy is a bigger surgery than having only an oophorectomy. Ask your gynecologic oncologist what the benefits and risks would be for you.

### ***How is the surgery done?***

Risk-reducing oophorectomy can be done in different ways. The method your surgeon uses depends in part on whether you are also having a hysterectomy. The surgery may be:

- A *laparotomy*, where the surgeon makes an incision through your abdomen.
- *Laparoscopic*, where the surgeon makes very small incisions near your belly button. During surgery, a tiny camera and instruments are inserted through these incisions.

Talk with your gynecologic oncologist about the surgery method that will work best for your needs.

### ***What are the health risks of having an oophorectomy?***

After this surgery:

- Your risk of *osteoporosis* (brittle bones) and heart disease may go up.
- *Menopause* will occur right away. This is the time when menstrual periods stop. It usually occurs at about 50 years of age.

Symptoms of menopause include:

- Hot flashes
- Trouble sleeping (*insomnia*)
- Mood swings
- Vaginal dryness

### ***How are menopause symptoms treated?***

You can take the hormone *estrogen* to improve many of the symptoms that occur during menopause. But, taking estrogen for a long time may increase your risk of breast cancer. This is a concern in women who have already had breast cancer or have a high risk of developing breast cancer.

There are also many non-hormonal ways to treat menopause symptoms. Please see our handout, “Menopause without Hormones.”

### ***Does the surgery affect my risk of breast cancer?***

Studies show that when women with changes in the BRCA1 or BRCA2 gene have this surgery, it also lowers their risk of getting breast cancer. This seems to work best when the oophorectomy is done before a woman goes through natural menopause.

### ***What if the doctor finds cancer during surgery?***

When doing this risk-reducing surgery on women who have the BRCA1 or BRCA2 gene mutation, surgeons find ovarian, fallopian tube, or peritoneal cancer in up to 10 to 15% of these patients (10 to 15 out of 100).

If you have a mutation in BRCA1 or BRCA2, your surgeon must:

- Take special precautions during your surgery
- Take extra care when examining your ovaries and tubes
- Carefully wash your abdominal cavity at the time of surgery, and test the fluid for cancer cells

If we find cancer during your surgery, we may do other tests to see how advanced it is and if it has spread.

### ***When is the best time for a risk-reducing oophorectomy?***

Most women should not have a risk-reducing oophorectomy until they are at least 35 years old and are done having children. This is because:

- Most women, even those at high risk, do not get ovarian cancer until they are in their late 40s or early 50s
- Having working ovaries lowers your risk of heart disease and osteoporosis

## **Making the Decision**

Risk-reducing surgery is permanent. Having this surgery is a very personal choice. Take your time to think carefully about your decision. Talk with your healthcare providers about your risks and options.

## **To Learn More**

### **Breast and Ovarian Cancer Prevention Program**

Seattle Cancer Care Alliance: 206.606.6100, [www.seattlecca.org](http://www.seattlecca.org)

### **Cancer Genetics Clinic**

University of Washington Medical Center: 206.606.2135

Seattle Cancer Care Alliance: 206.606.1024, [www.seattlecca.org](http://www.seattlecca.org)

**The Rivkin Center for Ovarian Cancer**

206.215.6200, [www.rivkin.org](http://www.rivkin.org)

**Familial Ovarian Cancer Registry**

800.OVARIAN (682.7426), 726.845.4503, [www.ovariancancer.com](http://www.ovariancancer.com)

**FORCE (Facing Our Risk of Cancer Empowered)**

954.255.8732, [www.facingourrisk.org](http://www.facingourrisk.org)

**National Ovarian Cancer Coalition**

888.OVARIAN (682.7426), [www.ovarian.org](http://www.ovarian.org)

**Questions?**

Women's Health Care Center,  
Roosevelt Clinic  
4245 Roosevelt Way  
206.598.5500

Seattle Cancer Care Alliance  
(SCCA)  
206.606.6100