

## The Role of Oophorectomy in Treating Ovarian Cancer

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### DESCRIPTION

Oophorectomy, the surgical removal of one or both ovaries, plays a pivotal role in the treatment and prevention of ovarian cancer, a type of cancer that originates in the ovaries and is known for its poor prognosis when diagnosed at advanced stages. Ovarian cancer often goes undetected in its early stages due to subtle symptoms and the difficulty of screening, making treatment approaches like oophorectomy essential in both managing the disease and mitigating future risks. This surgical procedure can be performed as a primary treatment for diagnosed ovarian cancer or as a preventive measure in women at high genetic risk, such as those carrying *BRCA1* or *BRCA2* mutations. This article explores the various roles of oophorectomy in the context of ovarian cancer, examining its use in treatment, prevention, and long-term health implications.

### Ovarian cancer: An overview

Epithelial ovarian cancer, which begins in the thin layer of tissue covering the ovaries.

Germ cell ovarian cancer, which originates in the cells that form eggs.

Stromal cell ovarian cancer, which arises from the connective tissue cells that hold the ovaries together and produce hormones.

### Oophorectomy as a treatment for ovarian cancer

**Unilateral oophorectomy:** The removal of one ovary, usually performed when the cancer is localized to a single ovary. This may be an option for younger women who wish to preserve fertility.

**Bilateral oophorectomy:** The removal of both ovaries, often necessary for advanced stages of ovarian cancer or when cancer has spread beyond one ovary. Bilateral oophorectomy is frequently accompanied by other surgical procedures, such as a hysterectomy (removal of the uterus) and salpingectomy (removal of the fallopian tubes), as part of a broader effort to remove all cancerous tissues.

**Debulking surgery:** For advanced ovarian cancer, oophorectomy is part of debulking surgery, which involves removing as much of the tumor as possible. In many cases, ovarian cancer spreads to other areas of the pelvis and abdomen, and debulking surgery may include the removal of parts of the intestines, spleen, or liver if cancer has metastasized. This aggressive approach aims to reduce the tumor burden and improve the effectiveness of chemotherapy.

### Oophorectomy as a preventive measure

In addition to its role in treating ovarian cancer, oophorectomy is also used as a preventive strategy for women at high risk of developing the disease. Women with mutations in the *BRCA1* or *BRCA2* genes, which are linked to a higher risk of both ovarian and breast cancer, may opt for prophylactic (preventive) bilateral oophorectomy to reduce their cancer risk. Prophylactic oophorectomy is typically recommended for women with *BRCA* mutations after they have completed childbearing, usually between the ages of 35 and 45.

### Timing and decision-making in prophylactic oophorectomy

The timing of prophylactic oophorectomy is a critical decision for women with *BRCA* mutations. Given that ovarian cancer often presents later in life, women are encouraged to delay the surgery until after childbearing is complete but before the age of 50, when the risk of developing ovarian cancer begins to rise significantly. In some cases, women may choose to delay surgery and instead undergo regular surveillance, which may include transvaginal ultrasounds and blood tests for CA-125, a tumor marker. However, it is important to note that these screening methods are not highly reliable for early detection, making oophorectomy the most definitive preventive measure.

### Recovery and long-term health after oophorectomy

The recovery from an oophorectomy varies depending on whether the procedure was done laparoscopically (minimally invasive) or through an open abdominal incision. Laparoscopic

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oophorectomy typically involves shorter recovery times, with most women returning to normal activities within two to six weeks. Open surgery may require a longer recovery period, generally around six to eight weeks.

### **Hormonal and non-hormonal management after oophorectomy**

Hormone Replacement Therapy (HRT) is often considered for women who have undergone oophorectomy, particularly those who are premenopausal. HRT can help mitigate menopausal symptoms and reduce the risk of osteoporosis and heart disease. However, HRT is typically avoided in women with hormone-receptor-positive cancers, such as some forms of breast cancer, due to concerns that it could promote cancer growth. In such cases, non-hormonal therapies, including lifestyle modifications, medications, and alternative therapies, may be used to manage symptoms.

### **The psychological impact of oophorectomy**

In addition to the physical consequences, oophorectomy can have a significant psychological impact, particularly for women

undergoing the procedure as part of cancer treatment. The loss of fertility, the onset of menopausal symptoms, and concerns about body image can all contribute to emotional distress. Many women experience feelings of grief or loss after oophorectomy, and it is essential for healthcare providers to offer psychological support and counseling to help women cope with these changes.

### **CONCLUSION**

Oophorectomy plays a vital role in both the treatment and prevention of ovarian cancer. As a surgical treatment, it helps remove cancerous tissues, improves the efficacy of other therapies, and can prolong survival. As a preventive measure, particularly in women with genetic mutations such as *BRCA1* and *BRCA2*, oophorectomy offers a significant reduction in the risk of ovarian and breast cancer. While the procedure has clear benefits, it also carries long-term health implications, particularly for premenopausal women, making it important to carefully weigh the risks and benefits. With appropriate follow-up care and support, women can manage the challenges associated with oophorectomy and optimize their overall health and well-being.