



Every ten hours one woman dies of Ovarian Cancer in Australia.

That's why our search is so critical.



Who are the OCRF?

The Ovarian Cancer Research Foundation (OCRF) was founded in 2000. Its aim is to foster research into ovarian cancer – a disease which claims the life of one Australian woman every 10 hours and often remains undetected until in its advanced stages.

The OCRF has three main objectives:

- To develop and implement an early detection program for ovarian cancer
- To improve the mortality rate, management and long term survival of women with ovarian cancer
- To raise community awareness of the importance of early detection

The OCRF research team is a collaboration between the Monash Medical Centre and Prince Henry's Institute for Medical Research. The Foundation was co-founded by Associate Professor Thomas Jobling and OCRF CEO Liz Heliotis.

What is Ovarian Cancer?

The ovaries are part of the female reproductive system and are located on either side of the uterus, or womb. They are almond shaped and approximately two to four centimetres in diameter. The role of the ovaries is to produce ova/eggs, as well as hormones that are involved in the menstrual cycle and fertility.

While cells in our body usually grow in a controlled and organised fashion, when they grow abnormally, they form a growth or a tumour, which can be benign or malignant. Benign tumours are not cancerous and do not spread uncontrollably, but a malignant tumour, also known as a cancer or carcinoma, will continue to spread through the body unless it is treated. Ovarian cancer is a malignant tumour of the ovary.

How common is ovarian cancer?

Ovarian cancer is the fourth most common cancer affecting women.

Every year approximately 400 women in Victoria alone are diagnosed, most of them with an advanced stage of the disease. This means one in 90 women have a chance of developing ovarian cancer in their lifetime. Nine out of ten cases occur in women over the age of 40.

Although it is less common than breast cancer (which affects one in 13 women), proportionally more women die from ovarian cancer because it is usually diagnosed in its advanced stages.

While advances have been made in survival rates for breast cancer, there have been no recent breakthroughs in ovarian cancer, and survival rates have barely improved.

What are the risk factors for ovarian cancer?

The cause of ovarian cancer is not known, but some women are at greater risk. A risk factor increases the chance of developing ovarian cancer. The most common risks include:

- Age: most women develop ovarian cancer after menopause and 50 percent are older than 65
- Caucasian women in industrialized countries with a higher standard of living are at higher risk
- Dietary factors such as the consumption of meat, whole milk and animal fat have been associated with an increased risk in some studies, others have not found this connection
- Evidence suggests a small to moderate positive relation between an increased Body Mass Index
- Having fewer or no children
- Having started periods at an early age
- Having your first child after the age of 30
- Menopause occurring after the age of 50
- Family history of ovarian cancer
- The use of the combined oral contraceptive pill and breastfeeding lowers the risk slightly. Conditions that interfere with normal ovulation (e.g. polycystic ovarian syndrome) also lower the risk slightly.
- However, 95% of all ovarian cancer occurs in women without these risk factors and many women who have risk factors do not develop ovarian cancer.

What are the symptoms of ovarian cancer?

Most women diagnosed with ovarian cancer are already in advanced stages of the disease. Unfortunately, there is a marked difference in survival rates if ovarian cancer is detected early.

Early stage ovarian cancer may not have obvious symptoms but the following may occur:

- Vague abdominal pain or pressure
- Feeling of abdominal fullness, gas, nausea, indigestion - different to your normal sensations
- Sudden abdominal swelling, weight gain or bloating
- Persistent changes in bowel or bladder patterns
- Low backache or cramps
- Abnormal vaginal bleeding
- Pain during intercourse
- Unexplained weight loss

The majority of women who experience one or two of these early symptoms do not have cancer. However, it is important that you seek medical advice if the symptoms are unusual or persist.

*While ovarian cancer is identified with women,
its repercussions affect all mankind.
Without at least one healthy ovary,
a child will not be born.*

Types of Ovarian Cancer

Although they all affect the ovaries, there are different types of ovarian cancer. When a diagnosis is made, the type of cancer is identified. The types are:

- **Epithelial:** epithelial ovarian cancers are derived from cells covering the surface of the ovary and comprise over 90% of ovarian cancers. Epithelial ovarian cancer is further divided into subtypes being serous, mucinous, endometrioid, clear cell, and undifferentiated. Epithelial ovarian cancers can also be divided into grades depending on how abnormal the cancer looks under the microscope.
- **Germ cell:** germ cell ovarian cancers arise from the eggs within the ovary and can also be classified into several subtypes. Germ cell cancers are uncommon, and tend to occur in women less than 30 years of age. Generally this type responds well to treatment, and young women may still have children afterwards if only one ovary is affected.
- **Sex-cord stromal:** Sex-cord stromal ovarian cancers originate from the tissue that releases female hormones. These are uncommon and can occur at any age. They respond well to treatment and young women may still have children if only one ovary is affected.
- **Borderline:** Borderline ovarian cancers are a group of epithelial cancers that are not as aggressive or malignant as the others. They generally have a better outcome, whether diagnosed early or late.

The treatment and likely outcome for a particular type of ovarian cancer will vary with each individual case and needs to be discussed with a gynaecological oncologist.

How does ovarian cancer spread?

Ovarian cancer spreads to other parts of the body by shedding cancerous cells which may then attach to the abdominal lining and continue to grow. Cancerous (malignant) cells can also implant on:

- Liver
- Omentum, which is the curtain of fatty tissue that hangs from the stomach and intestines
- Bladder
- Diaphragm, situated under the lungs

Ovarian cancer may spread via the lymph glands which are part of the immune system and often swell when our bodies are fighting an infection. These glands are all over the body, but it is those in the pelvis, around the aorta and in the groin and neck that are usually affected with ovarian cancer.

Another way of spreading is via the bloodstream or through the diaphragm, affecting the lungs and causing fluid to collect.

What are the stages of ovarian cancer?

Ovarian cancer can be classified into four 'stages', depending on the extent of spread of the disease. This requires an operation to obtain some samples of tissue, which is then examined under a microscope.

- Stage I: cancer is limited to the ovaries only.
- Stage II: one or both ovaries are affected, as well as other pelvic tissues.
- Stage III: involves one or both ovaries; the cancer is in the abdominal cavity but outside the pelvis, or there is cancer in the lymph nodes in the pelvis, or around the aorta or in the groin.
- Stage IV: involves one or both ovaries with spread to distant organs, such as the liver or diaphragm.

How is Ovarian Cancer treated?

Ovarian cancer is treated in a variety of ways including:

- Surgery
- Chemotherapy
- Radiotherapy

A gynaecological oncologist (specializing in treating cancers relating to gynaecology) will discuss the best treatment options with patients on an individual basis.

What is the survival rate for ovarian cancer?

Every woman with ovarian cancer is treated as an individual case, depending on the stage of the disease and other personal factors, and so it is difficult to give a general prognosis.

If the cancer is diagnosed and treated early, between 80-100% of patients will survive for more than five years. Approximately 20% of women diagnosed at later stages will survive for more than five years. This figure, however, is improving all the time with better treatment.

*Over 50% of the population incorrectly think
that a pap smear detects ovarian cancer.*