About ovarian cancer

Ovacome is a national charity providing advice and support to women with ovarian cancer. We give information about symptoms, diagnosis, treatments, research and screening. Ovacome also runs a telephone support line and works to raise awareness and give a voice to all those affected by ovarian cancer.

This fact sheet gives an overview of the different types of ovarian cancer, how it is diagnosed and treated. There is a glossary to explain words you may not be familiar with.

Diagnosis

There are about 7000 new cases of ovarian cancer each year in the UK. The symptoms can be similar to other less serious conditions which can delay diagnosis. The ovaries are deep in the pelvis and difficult to examine and screen, which is also why this cancer can be difficult to diagnose.

Research is looking at whether screening for ovarian cancer can save lives. Early results announced in 2015 were inconclusive so the trials are continuing for a few more years.

Currently ovarian cancer is diagnosed using a blood test to measure levels of CA125, a protein that acts as a cancer marker. Your GP can arrange this test.

Levels over 35 may suggest that ovarian cancer could be present and further tests are needed. Ultrasound scans or CT scans are then used to look for the presence of cancer. These are painless tests that create images of the inside of your body.

What are the different types of ovarian cancer?

There are many types of ovarian cancer. It can be divided into three main groups; epithelial, germ cell and sex-cord stromal tumours, depending on the type of tissue from which the cancer cells originate.

Epithelial ovarian cancer

This is the most common type of ovarian cancer, making up 90% of cases. Epithelial ovarian cancer develops from cells that cover or line the ovaries. These cancers are grouped according to how they look under a microscope. Epithelial ovarian cancer can be subdivided into serous, mucinous, endometrioid, clear cell and borderline. Although they may act slightly differently, they are usually treated in a similar way.

Serous tumours make up 70% of cases; mucinous tumours make up 10% and endometrioid tumours make up 5% of cases and are more likely to be
associated with disease in the uterus (womb). Sometimes an ovary is found to be affected when a woman is diagnosed with endometrial cancer.

Clear cell tumours make up 3% to 5% of epithelial ovarian cancers. You can get more information about them in our Fact sheet 11 Clear cell tumours.

Borderline tumours are also epithelial tumours, but behave differently. They make up 10% of cases, tend to grow slowly and are less likely to spread. Often surgery is the only treatment needed. They grow on the outside of the ovary and do not tend to spread inside it. This means that borderline tumours often have a better outcome than other ovarian tumours. You can get more information in our Fact sheet 10 Borderline ovarian tumours.

Germ cell tumours
Germ cell tumours make up 3% of ovarian cancers. They originate from cells that produce the eggs in the ovaries and are more common in young women. Not all germ cell tumours are malignant (cancer).

Sex-cord stromal tumours
Sex-cord tumours are made up of the cells that produce hormones and support cells in the ovary. They make up 5% of ovarian cancers. The most common type is granulosa cell tumour and others include sertoli leydig.

You can get more information in Fact sheet 12 Rare ovarian tumours.

Diagram of the female reproductive system

**What is staging?**
The treatment and prognosis (outcome of the disease) usually depends on the type and stage of the cancer.

The stage describes how far the cancer has spread at the time it is diagnosed. This is decided at the first operation or during scans.

**Stage 1**
The cancer is on or in one or both ovaries and has not spread.

**Stage 2**
The cancer has spread outside the ovary to the lining of the pelvis and can involve the uterus, fallopian tubes, bladder and rectum.

**Stage 3**
The cancer has spread within the abdomen, the surface of the bowel, the omentum and the lymph glands in the pelvis or around the aorta.
Stage 4
The cancer has spread beyond the abdomen to other organs such as the liver and lungs.

The stages are classified further with the letters a, b and c. You can get more information in Fact sheet 3 The stages of ovarian cancer.

Grading
You may also find that your doctor mentions grade or differentiation when talking about ovarian cancer. The grade of a tumour is decided by how the cancer cells look under the microscope. Grading is divided into three groups: one (low), two (intermediate) and three (high). It is an indication of how quickly the cancer cells may divide.

Treatments
There are two main treatments for ovarian cancer – surgery and chemotherapy. If your cancer has been found using a scan, the multidisciplinary team (MDT) will look at the results and discuss which option is best for you. You may be offered one of these treatments or a combination of both.

Important questions to ask
Will I be referred quickly to a medical team that specialises in diagnosing and treating gynaecological cancers?

Will the surgery be done by a specialist gynaecological oncologist?

Will medical professionals discuss the surgery and chemotherapy with me before my treatment starts?

Will my chemotherapy be carried out by staff with a special interest in gynaecological cancers?

What is the name and contact details of my clinical nurse specialist?

Can I and my family get information on support services?

Will I get information on any ongoing clinical trials, both at this hospital and elsewhere?

Surgery
In most cases, surgery is needed. A specially qualified surgeon (gynaecological oncologist) should do this operation, called a staging laparotomy. Laparotomy means to operate on the abdomen. The surgeon will take samples from your abdomen and send them to a laboratory to find out how far the cancer has spread.

The aim of the operation is to remove as much of the tumour as possible without causing damage to surrounding organs. Sometimes it is not possible to remove all of the tumour. The surgeon will aim to do a hysterectomy (remove the womb) a bilateral salpingo-oophorectomy (remove the ovaries and fallopian tubes) and remove the omentum (a fatty layer in the abdomen).

If the tumour has not spread it may sometimes be possible for the surgery to be modified to preserve fertility.
Your surgeon will discuss your operation and give you the chance to ask as many questions as you want to. You will be asked to sign a consent form to give your permission for the operation.

In some cases it is better to try and reduce the size of the tumour with chemotherapy and operate later. You should discuss any advantages and disadvantages of this option with your surgeon.

After surgery you are likely to be in hospital for about a week and you will have to take it easy at home for several weeks. You should avoid lifting and driving for four to six weeks.

**Chemotherapy**
In most cases, you will be advised to have chemotherapy, either to prepare for surgery or to kill any cancer cells left after surgery.

Chemotherapy is a drug treatment that kills cancer cells. A doctor called an oncologist prescribes it. There are many different types of chemotherapy and your oncologist will discuss the various options.

Most chemotherapy for ovarian cancer is given as an intravenous treatment (via a small tube into your vein). You will usually be treated in hospital as an outpatient and be able to go home after the sessions.

Very early stage ovarian cancer, stage 1a or 1b, which is low grade (slow to spread) and borderline tumours can sometimes be cured with surgery alone.

In other cases treatment usually involves a combination of chemotherapy and surgery. Chemotherapy is also the treatment of choice for ovarian cancer that has recurred.

**Side effects**
Chemotherapy does have side effects. They depend on which drugs you are given. Most side effects can be managed by medication and usually resolve when the treatment is completed.

Side effects experienced by women being treated for ovarian cancer include:

- Drop in production of blood cells
- Suppressed immune system
- Sickness
- Fatigue
- Constipation
- Numbness in fingers and toes
- Hair loss

**Other therapies**
New treatments which attack cancer in other ways are now becoming available, such as Avastin which targets the blood vessels that supply the cancer. These are called novel treatments. Some of them require long term use, called maintenance therapy.

**Remission and relapse**
Chemotherapy can often shrink the tumour until there is no sign of cancer left. This is called a complete remission. Sometimes a small amount of cancer is still left at the end of treatment but is not growing. This is called a partial remission.
Chemotherapy does not kill the cancer and the disease does not improve. If this happens, the oncologist will change the type of chemotherapy.

After treatment, you may need to visit the hospital regularly to check that the cancer has not come back. Gradually the time between checks will get longer. If you have any worries, you can see your oncologist between appointments.

Although ovarian cancer is frequently controlled by chemotherapy it may come back. This is called a relapse or recurrence. It is difficult to predict how long the benefits of the chemotherapy will last. For some women it only lasts a few months, for others remission continues for a lot longer.

If your cancer comes back after the initial (first line) chemotherapy, your oncologist will suggest another course (second line). The aim is to achieve as long a remission as possible. Some women go on to have successful third-and fourth-line treatment, sometimes more.

Treatment for ovarian cancer is increasingly seen as the long term management of a chronic condition with the aim of achieving remissions rather than cure. The treatment aims to control the disease, manage symptoms, limit the effects of toxicity from chemotherapy and maintain or improve the quality of life.

You can get more information in our Fact sheet 8 Treatment for relapsed ovarian cancer.

Many new ways of treating cancer are being investigated, as well as studies of how to use existing treatments more effectively. If you would like to take part in a trial, you should discuss this with your doctor.

If you would like more information on the sources and references for this fact sheet, please call us on 0800 008 7054. If you would like to discuss anything about ovarian cancer, phone our support line on Freephone 0800 008 7054 Monday to Friday from 10am to 5pm. You can also visit our website at www.ovacome.org.uk.

Written by Louise Bayne, Ovacome Chief Executive Officer.

Disclaimer:
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The information provided here is not a substitute for professional medical care. If you suspect you have cancer you should consult your doctor as quickly as possible.
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Ovacome
Phone: 020 7299 6654
Website: www.ovacome.org.uk
Email: ovacome@ovacome.org.uk
Glossary

Aorta
The abdominal aorta is the largest artery in the abdomen. An artery is a blood vessel carrying blood away from the heart.

CA125
This is a protein found in the blood. The amount of CA125 will be higher for some people with specific types of cancer. It is a tumour marker for ovarian cancer.

CT scan
A CT (computerised tomography) scan uses x-rays to produce images of the body.

Laparotomy
An operation to open the abdomen. A staging laparotomy is an abdominal operation to find if the cancer has spread.

Lymph nodes/glands
These are small pearl-like glands that are connected to the lymph system and act as filters to bacteria or cancer cells.

Malignant
Malignant tumours are ones that have the ability to invade and destroy surrounding tissues and can spread to other organs in the body.

MDT
Multidisciplinary Team – several members of different hospital departments who meet to discuss the treatment plan for individual patients.

Omentum
A sheet of fat in the abdomen that protects the intestines.

Prognosis
An assessment of how the disease is expected to behave.

Remission
Period of time when a cancer goes away.

Ultrasound scan
An ultrasound scan uses sound waves to build up a picture of the organs using a probe placed on the abdomen. A transvaginal scan does the same but a probe is placed in the vagina.