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FIGHTING CANCER – LIVING WITH IT

Cancer of the ovary, fallopian tube or peritoneum

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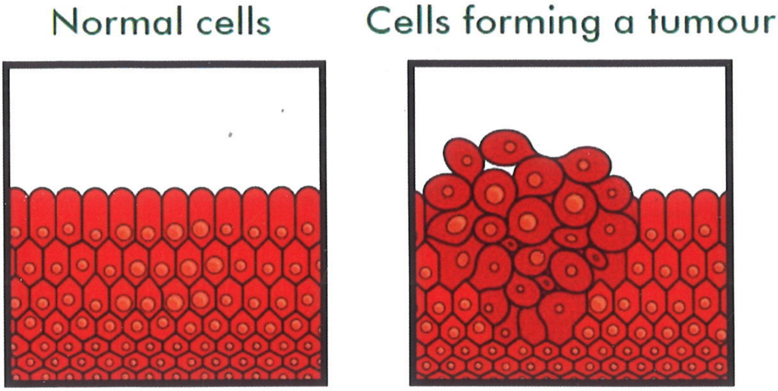
Illustration 1



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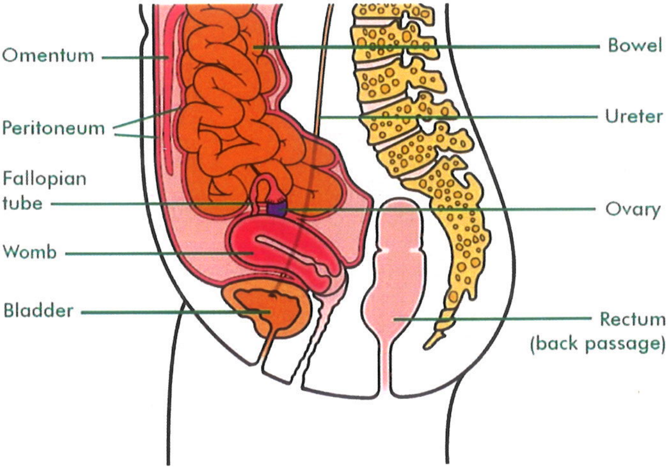
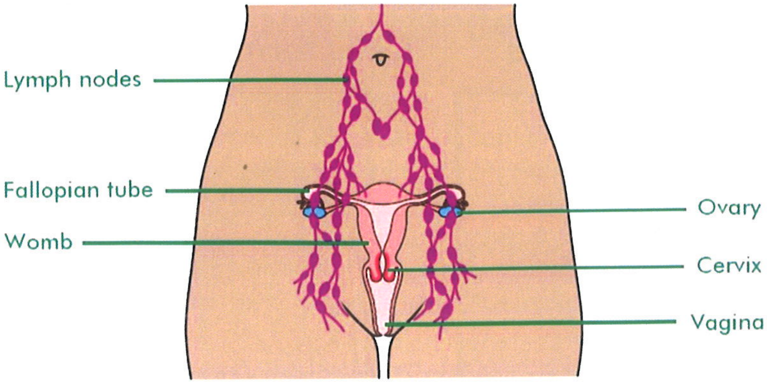


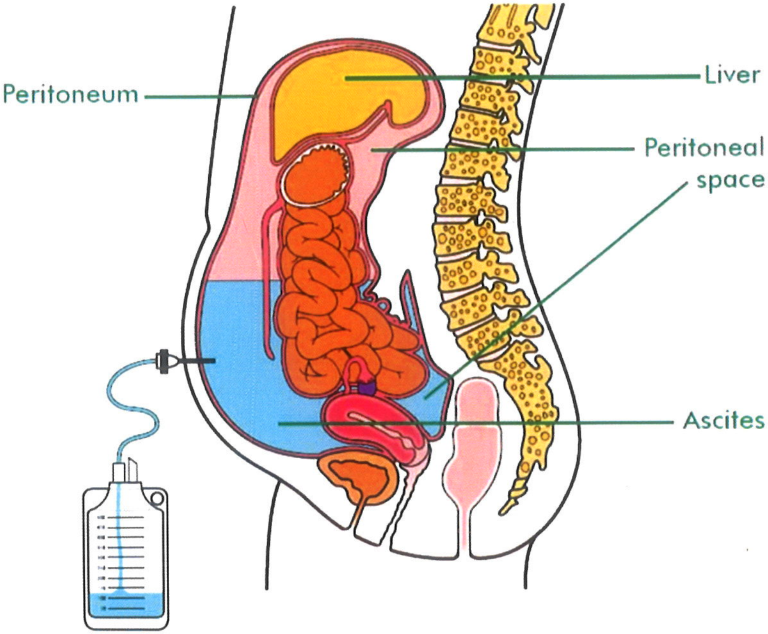
The ovaries and surrounding structures

Illustration 3



Lymph nodes in the abdomen and pelvis

Illustration 4



Fluid being drained from the tummy (ascitic drainage)

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About this booklet

This booklet is about cancer that starts in the ovary, fallopian tube, or peritoneum.

It is for anyone affected by these types of cancer. There is also information for carers, family members and friends.

The booklet explains how these cancers are diagnosed and treated. It gives information about coping during and after treatment.

We hope it helps you deal with some of the questions or feelings you may have. We cannot give advice about the best treatment for you. You should talk to your doctor, who knows your medical history.

This booklet does not have information about

- cancer that spreads into these areas from somewhere else in the body such as the bowel, stomach or pseudomyxoma peritonei (PMP).
- peritoneal mesothelioma, a different type of cancer that starts in the peritoneum.

We have other booklets about this called:

- Understanding colon cancer
- Understanding stomach cancer
- Understanding mesothelioma.

We also have information on our website about pseudomyxoma peritonei (PMP).

What is cancer?

Cancer starts in cells in our body. Cells are tiny building blocks that make up the organs and tissues of our bodies. They divide to make new cells in a controlled way. This is how our bodies grow, heal and repair. Cells receive signals from the body telling them when to divide and grow and when to stop growing. When a cell is no longer needed or can't be repaired, it gets a signal to stop working and die.

Cancer develops when the normal workings of a cell go wrong and the cell becomes abnormal. The abnormal cell keeps dividing making more and more abnormal cells. These eventually form a lump (tumour). Not all lumps are cancerous. Doctors can tell if a lump is cancerous by removing a small sample of tissue or cells from it. This is called a biopsy. The doctors examine the sample under a microscope to look for cancer cells.

Please see Illustration 1 on Illustrations pages

A lump that is not cancerous (benign) may grow but cannot spread to anywhere else in the body. It usually only causes problems if it puts pressure on nearby organs.

A lump that is cancer (malignant) can grow into nearby tissue. Sometimes, cancer cells spread from where the cancer first started (the primary site) to other parts of the body. They can travel through the blood or lymphatic system. When the cells reach another part of the body, they may begin to grow and form another tumour. This is called a secondary cancer or a metastasis.

The ovaries, fallopian tubes and peritoneum

The ovaries and fallopian tubes

The ovaries are two small, oval-shaped organs in the pelvis. The pelvis is the area between the hips in the lower part of the tummy. The ovaries are part of the female reproductive system. This is the system involved in making eggs, having sex, carrying a baby and giving birth. It also includes the fallopian tubes, womb (uterus), cervix and vagina (see diagram).

The fallopian tubes are two fine tubes that link the ovaries to either side of the womb. Normally, from puberty to menopause, one of the ovaries releases an egg once a month. The egg passes down the fallopian tube to the womb. If the egg is not fertilised by a sperm, it passes out of the womb as part of the monthly period.

The ovaries also produce the female hormones oestrogen and progesterone. These help control the reproductive system. As you get older, the ovaries make less of these hormones. The ovaries stop releasing eggs each month and periods stop. This is known as the menopause. It means you cannot get pregnant anymore. It usually happens naturally between your mid-40s and mid-50s.

Please see Illustration 2 on Illustrations pages

Organs close to the ovaries and fallopian tubes

There are several organs close to the ovaries and fallopian tubes. These include:

- the bladder
- the ureters – tubes which drain urine from the kidneys to the bladder
- the back passage (rectum)
- part of the bowel
- groups of lymph nodes
- the womb (uterus).

The peritoneum

A layer of tissue supports the ovaries and fallopian tubes. This tissue is called the peritoneum.

In men and women, the inner layer of the peritoneum covers the surface of all the organs in the tummy (abdomen), such as the stomach, liver and bowel. The outer layer lines the wall of the abdomen. Between the two layers is a small amount of fluid. This lets the layers move easily against each other.

The peritoneum helps protect the organs in the abdomen and keep them in place. A section of the inner layer forms an extra flap of tissue that hangs down from the stomach, in front of the bowel. This flap is called the omentum.

The lymphatic system

The lymphatic system helps to protect us from infection and disease. It also drains lymph fluid from the tissues of the body before returning it to the blood. The lymphatic system is made up of fine tubes called lymphatic vessels that connect to groups of lymph nodes throughout the body.

Lymph nodes (sometimes called lymph glands) are small and bean-shaped. They filter bacteria (germs) and disease from the lymph fluid. When you have an infection, lymph nodes often swell as they fight the infection.

Sometimes cancer can spread through the lymphatic system. Cancer that starts in the ovaries, fallopian tubes or peritoneum is most likely to go to the lymph nodes in the pelvis (the area between your hips) or abdomen (tummy).

Please see Illustration 3 on Illustrations pages

About cancer of the ovary, fallopian tube or peritoneum

7th most common cancers in the world and 3rd most common cancer in Indian women.

It is rarer for cancer to start in the fallopian tube or peritoneum (primary peritoneal cancer). Primary peritoneal cancer can affect men as well as women, although this is very rare.

The surface of the ovaries, fallopian tubes and peritoneum are all close together in the body. This means that sometimes it is not clear which of these areas a cancer has started in.

Cancers that start in an ovary, fallopian tube or the peritoneum:

- often cause the same symptoms
- are diagnosed using the same tests
- are treated using the same treatments.

Ovarian cancer can affect anyone who has ovaries and fallopian tubes. This includes women, transgender (trans) men and people assigned female at birth.

We have separate information about cancer that spreads into these areas from somewhere else in the body. This includes bowel cancer, stomach cancer, pseudomyxoma peritonei (PMP) and some types of sarcoma. We also have information about peritoneal mesothelioma, a different type of cancer that starts in the peritoneum.

Types of ovarian cancer

There are different types of cancer that can start in the ovary, fallopian tube or peritoneum.

Epithelial ovarian cancers

The most common type of cancer to start in the ovary, fallopian tube or peritoneum is called epithelial ovarian cancer. It starts in epithelial cells, and there are different sub-types.

Serous cancer

Serous cancers are the most common type of epithelial ovarian cancer. At least 8 in 10 of all ovarian cancers (80%) are serous cancers. They are usually high grade. This means they can grow more quickly. Doctors think most high-grade serous ovarian and peritoneal tumours start at the very end of the fallopian tube. The cancer cells then spread to the ovaries and peritoneum.

A small number of serous cancers are slow growing (low grade).

Other types of epithelial ovarian cancer

The following types of epithelial ovarian cancer are much less common. They are more likely to be diagnosed at an earlier stage:

- clear cell (12% of cases)
- endometrioid (11% of cases)
- mucinous (3% of cases).

Borderline ovarian tumours

Borderline ovarian tumours are made up of abnormal epithelial cells. But these cells are not true cancers. Borderline tumours grow slowly. They are not invasive. This means they may spread to nearby tissue but do not grow in these tissues. They can also spread to other parts of the body.

Non-epithelial ovarian cancers

These cancers make up about 1 in 10 (10%) of all ovarian cancers. They usually start in cells specific to the ovaries. There are different types, including sex cord-stromal tumours and germ cell tumours. Germ cell tumours usually affect younger women.

This information is about epithelial ovarian cancer. We have separate information about germ cell tumours on our website.

Risk factors and causes

We do not know what causes cancer to start in the ovary, fallopian tube or peritoneum. But we know some of the risk factors that may increase the chances of it developing.

We know less about the risk factors for fallopian tube and primary peritoneal cancer because these cancers are less common. But they are likely to be similar to the risk factors for ovarian cancer.

Having a risk factor does not mean you will definitely get cancer. Equally, if you don't have any risk factors, this does not mean you will not get cancer.

Age

These cancers are rare in people under the age of 30. The risk increases with age. More than half (50%) of ovarian cancers occur in women over the age of 65.

Hormonal factors

Doctors think the number of times an ovary releases an egg (ovulates) may be linked to ovarian cancer risk. This is because there is evidence that having children, breastfeeding, and taking the contraceptive pill reduce the risk of ovarian cancer.

Hormone replacement therapy (HRT)

Taking HRT after the menopause slightly increases the risk of ovarian cancer. About 4 in 100 cases (4%) may be linked to taking HRT. But doctors think this is only for serous and endometrioid ovarian cancers.

Breast cancer

If you have had breast cancer, you may be more likely to develop ovarian cancer. This may be because these cancer types share the same risk factors. But doctors think it may be because both cancers can be caused by the same cancer genes.

Other conditions

Some other conditions can increase your risk of developing ovarian cancer.

Diabetes

Having diabetes may increase the risk of developing ovarian cancer.

Endometriosis

Endometriosis is a non-cancerous condition. With this condition, cells similar to the cells that line the womb are found in areas outside the womb. Having endometriosis may slightly increase the risk of endometrioid and clear cell ovarian cancers. These types of ovarian cancer are often diagnosed earlier.

Lifestyle factors

There are also some lifestyle factors that can increase your risk of developing ovarian cancer.

Weight

Being overweight (obese) may increase the risk of some ovarian cancers.

Smoking

Smoking cigarettes may slightly increase the risk of developing a less common type of ovarian cancer called mucinous cancer. But it does not affect your risk of the most common type of ovarian cancer.

Family history of ovarian cancer

If you have a family history of ovarian cancer, you may have a higher risk of developing it yourself. Your risk may be about three times higher if you have one close relative with ovarian cancer. If you have two or more close relatives with ovarian cancer or certain other types of cancer, your risk may be higher than this.

Inherited genetic conditions

Around 5 to 15 out of 100 ovarian cancers (5 to 15%) are thought to be caused by a change (mutation) in a gene that is passed on in the family. Genes contain our genetic information, which is passed on from our parents. Some cancers, such as ovarian, breast, bowel and womb cancers, may affect several people in the same family. They may develop at a younger age.

BRCA1 and BRCA2

The most commonly affected genes are called BRCA1 and BRCA2. If you have a mutation in one of these genes, you may have a higher risk of ovarian, fallopian tube, primary peritoneal and some other types of cancer.

If you have a mutation in the BRCA1 gene, your risk of developing ovarian cancer is up to 65% higher. With BRCA2, it is up to 35% higher.

Families from all ethnic backgrounds can be affected by a gene mutation linked to cancer. But families from an Ashkenazi Jewish background have a particularly high risk of having BRCA1 or BRCA2 mutations.

Rare genetic conditions

Lynch syndrome and Peutz-Jeghers syndrome are both rare genetic conditions that affect some families. They can increase the risk of some cancers, including ovarian cancer.

Symptoms

Cancer of the ovary, fallopian tube or peritoneum often causes symptoms that are similar to other more common and less serious conditions. This can make it difficult to diagnose early, before the cancer has spread.

If you have any of these symptoms for no reason, or you get these symptoms regularly (especially more than 12 times a month), your GP should offer you cancer tests:

- a long-lasting bloated or swollen tummy
- loss of appetite
- feeling full quickly when you eat
- pain in the lower tummy area or back
- passing urine more often than usual

- passing urine more urgently (feeling like you can't hold on).

Other symptoms may include:

- a change in your normal bowel habit (diarrhoea or constipation)
- weight gain or weight loss
- unexplained or extreme tiredness (fatigue)
- vaginal bleeding after your menopause.

If you are 50 years or older and develop symptoms of irritable bowel syndrome (IBS) for the first time, you should also have tests.IBS can cause bloating and changes in bowel habit, but it does not usually start after the age of 50.

Transgender (trans) men

If you are a trans man and have not had surgery to remove the womb, ovaries and fallopian tubes, you are still at risk of ovarian cancer.

If you are worried about ovarian cancer, have any of the symptoms, or have a family history, talk to your GP.

Diagnosing cancer of the ovary, fallopian tube or peritoneum

How cancer of the ovary, fallopian tube or peritoneum is diagnosed

You usually start by seeing your GP. Your GP will ask about your symptoms and do an internal (vaginal) examination to check for any lumps or swellings.

After examining you, your GP will usually arrange for you to have the following tests:

- A blood test, to check a protein called CA125 – The levels of this protein may be higher if you have ovarian cancer.
- An ultrasound scan – This uses sound waves to produce a picture of the organs in the pelvis. You have this if your CA125 levels are raised (35 IU/ml or above).

If the ultrasound results show any abnormal areas, your GP will arrange for you to see a specialist doctor within 2 weeks. This will be a gynaecologist, who treats problems with the female reproductive system.

If your CA125 and ultrasound results are normal, but your symptoms continue or get worse, your GP can refer you to see a specialist.

If your GP finds a lump in your pelvis or fluid in your tummy (ascites), they will refer you to a specialist straight away.

Some people are diagnosed with cancer after being admitted to hospital with a symptom that is making them very unwell.

At the hospital

The specialist doctor will ask you about your general health, any previous health problems, and whether you have any history of cancer in your family.

They will do an internal (vaginal) examination again. If you have not already had a CA125 blood test and ultrasound, they will usually arrange for you to have these tests.

The doctor may use the results of these tests to check your Risk of Malignancy Index (RMI) score. This is a system that checks how likely it is that your symptoms are caused by cancer. It takes into account:

- whether you have gone through the menopause
- the level of CA125 in your blood
- the results of your ultrasound.

They may also organise further tests, such as a CT scan. These tests help your team diagnose the cancer and plan your treatment.

You may also meet a nurse specialist. They can give you advice and support. Your doctor or nurse will explain any tests you need. If you have questions or need more information, just ask.

Tests

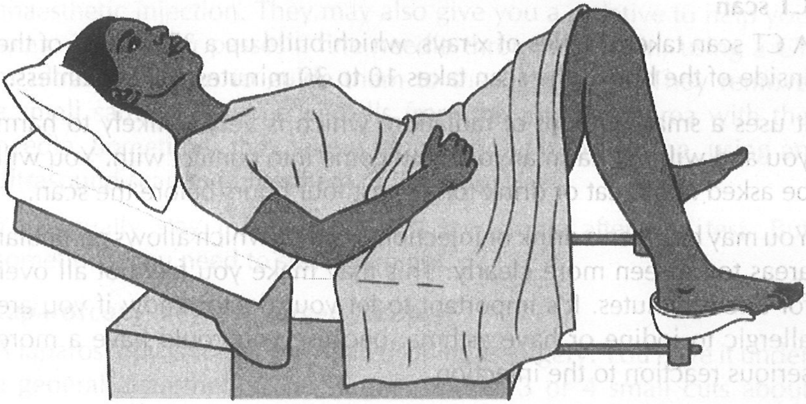
Internal (vaginal) examination

Your doctor will do an internal examination to check for any lumps or swelling in the ovaries or womb. It takes about five minutes. It should not be painful, but may be uncomfortable.

You lie on a couch with your feet drawn up and knees apart. The doctor places one or two gloved fingers into your vagina and gently presses on your lower tummy with their other hand. They may put an instrument called a speculum into your vagina. They use this to hold the vagina walls apart, so they can check that your cervix looks normal.

If you have questions or worries about having an internal examination, tell the nurse or doctor. They can answer any questions you have and explain ways they can make it easier for you.

Having an internal examination



CA125 blood test

This blood test checks for raised levels of a protein called CA125.It is normal to have some CA125 in the blood, but the level maybe higher in women with ovarian cancer. The level of CA125 can also be raised by non-cancerous conditions and by other types of cancer.

In early ovarian cancer, CA125 levels may be normal.

Ultrasound scan

An ultrasound scan uses sound waves to build up a picture of the organs inside the abdomen (tummy area) and the pelvis. A computer converts the sound waves into pictures that you can see on a screen.

You have the scan in the hospital scanning department. The person doing the scan will explain more about it and help you lie down comfortably on your back.

You may have a:

- Pelvic ultrasound – You will be asked to drink plenty before this test so that your bladder is full. They spread a gel on to your abdomen and gently press a small hand-held device against your skin. This produces the sound waves.
- Vaginal ultrasound – They gently put a small ultrasound probe into your vagina. The probe is about the size of a tampon and produces the sound waves. Although this scan sounds uncomfortable, some people find it easier than a pelvic ultrasound, as you do not need a full bladder.

CT scan

A CT scan takes a series of x-rays, which build up a 3D picture of the inside of the body. The scan takes 10 to 30 minutes and is painless.

It uses a small amount of radiation, which is very unlikely to harm you and will not harm anyone you come into contact with. You will be asked not to eat or drink for at least four hours before the scan.

You may be given a drink or injection of a dye, which allows particular areas to be seen more clearly. This may make you feel hot all over for a few minutes. It's important to let your doctor know if you are allergic to iodine or have asthma, because you could have a more serious reaction to the injection.

You'll probably be able to go home as soon as the scan is over.

Removing fluid from the abdomen

Sometimes swelling or bloating in the tummy is caused by a buildup of fluid. This is called ascites. It can be caused by cancer or by other non-cancerous conditions. If you have ascites, your doctor may want to take a sample of this fluid to check for cancer cells.

The doctor injects some local anaesthetic into the skin on your tummy (abdomen) to make it numb. They gently pass a small needle through the skin and collect some fluid in a syringe.

The fluid is sent to the laboratory to be examined. If you have a lot of fluid in your abdomen, it can be uncomfortable, so your doctor may remove it (called ascetic drainage).

Biopsy

If your first treatment is surgery, you have biopsies taken during the operation. If your doctor thinks you need chemotherapy first, you usually have a biopsy before treatment. This means removing a small sample (biopsy) from the lump or abnormal area. If your scan or blood tests results are not typical of ovarian cancer, you may have a biopsy first. This is so your doctor can be certain of the diagnosis before surgery.

The biopsy is looked at under a microscope to check for cancer cells. The results of your biopsy also tell your doctor about the type, stage and grade of the cancer.

Image-guided fine needle biopsy

A doctor (radiologist) or nurse numbs your skin using a local anaesthetic injection. They may also give you a sedative to help you relax. The doctor passes a fine needle through the skin, using a CT or ultrasound scan to guide them to the right place. They remove a small sample of tissue or cells from the abnormal area with the needle. Sometimes they take a biopsy through the vagina, using an ultrasound scan to guide them to the area.

You usually stay in hospital for a few hours after this test. But sometimes you need to stay overnight.

Laparoscopy (keyhole surgery) biopsy

A laparoscopy is sometimes called keyhole surgery. You have it under a general anaesthetic. The surgeon makes 3 or 4 small cuts about 1cm long in your lower tummy area. They pump some gas into the tummy to lift up the tummy wall so they can see the organs clearly. After this, they put a thin tube called a laparoscope through one of the cuts. This has a tiny camera on the end. It allows the surgeon to examine the area carefully and take biopsies.

You can usually go home the same day after a laparoscopy. But you may have discomfort in your neck or shoulder for 1 or 2 days afterwards. Walking about may help with the discomfort. You may have cramps or painful wind. Sipping peppermint water and moving around can help reduce these effects.

Laparotomy

Sometimes you have an operation called a laparotomy to get a biopsy.

The surgeon uses 1 larger cut to open the tummy and look inside. If they find a cancer, they may remove it. This is only done if you and your doctor have discussed it and you have agreed (consented) – to it before the operation.

Genetic testing

Your doctor and nurse may talk to you about having a blood test for genetic testing. This is to find out if you have a change (mutation) in the BRCA genes that can cause ovarian cancer. This helps your doctor decide whether certain targeted therapy drugs could be helpful treatments for you.

Waiting for test results

Waiting for test results can be a difficult time. It may take from a few days to a couple of weeks for the results of your tests to be ready. You may find it helpful to talk with your partner, your family or a close friend.

Staging and grading

Staging

The stage of a cancer describes where the cancer has been found and other places it has spread to. Knowing the stage helps your doctors plan the best treatment for you.

Your doctor will not usually know the exact stage of the cancer until it has been removed with surgery. If you have not had surgery, they can use the results of your tests to decide the stage of the cancer.

Doctors use the FIGO staging system to stage cancer of the ovary, fallopian tube and peritoneum. This uses numbers and letters to describe different stages.

Stage 1

This is early cancer.

Stage 1a

The cancer is only in one ovary or fallopian tube.

Stage 1b

The cancer is in both ovaries or fallopian tubes.

Stage 1c

The cancer is in one or both ovaries or fallopian tubes with any of the following:

- The tissue surrounding the ovary (capsule) or fallopian tube has broken, which may have let cancer cells leak into the abdomen or pelvis.
- There are cancer cells on the surface of the ovaries or fallopian tubes.
- There are cancer cells in the fluid in the abdomen or pelvis.

Stage 2

The cancer is in one or both ovaries or fallopian tubes and has grown into nearby areas inside the pelvis.

Or the cancer has started in the peritoneum but only affects areas inside the pelvis.

Stage 2a

There is cancer on the womb, fallopian tubes or ovaries.

Stage 2b

There is cancer on other structures in the pelvis, such as the bowel or bladder.

Stage 3

The cancer is in one or both ovaries or fallopian tubes or started in the peritoneum. And it has spread to:

- the peritoneum outside the pelvis
- the lymph nodes in the abdomen and/or pelvis.

Stage 3a1

The cancer has spread to the lymph nodes in the abdomen and/or pelvis.

Stage 3a2

Very tiny amounts of cancer have spread to the peritoneum outside the pelvis. There may also be cancer in the lymph nodes in the abdomen and/or pelvis.

Stage 3b

There are areas of cancer on the peritoneum outside the pelvis. These areas are less than 2cm. There may also be cancer in the lymph nodes in the abdomen and/or pelvis.

Stage 3c

There are areas of cancer on the peritoneum outside the pelvis that are larger than 2cm. There may also be cancer in the lymph nodes in the abdomen and/or pelvis. There may be cancer cells on the surface of the liver and spleen but not inside these organs.

Stage 4

The cancer has spread outside the abdomen.

Stage 4a

The cancer has caused a buildup of fluid in the lining of the lungs (called the pleura). This is called a pleural effusion.

Stage 4b

The cancer has spread to the inside of the liver or spleen, or to lymph nodes or organs outside the abdomen.

Grading

Grading describes how the cancer cells look under the microscope compared with normal cells. Knowing the grade helps your doctor plan your treatment.

This is how ovarian, fallopian tube and primary peritoneal cancers are graded:

- **Borderline tumours** are made up of abnormal cells rather than cancer cells.
- **Low-grade or well-differentiated (grade 1)** – The cancer cells look similar to normal cells. They usually grow slowly and are less likely to spread.
- **Moderate or intermediate-grade (grade 2)** – The cancer cells look more abnormal. They are slightly faster-growing.
- **High-grade or poorly-differentiated (grade 3)** – The cancer cells look very different from normal cells. They may grow more quickly.

Most epithelial ovarian cancers are high-grade serous.

Doctors do not stage or grade borderline tumours. This is because they are made up of abnormal cells rather than cancer cells.

Treating cancer of the ovary, fallopian tubes or peritoneum

Treatment overview

The main treatments for cancer that starts in the ovary, fallopian tube or peritoneum are surgery, chemotherapy and targeted therapies.

Depending on the stage of the cancer, the aim of treatment may be to cure the cancer or to control it for as long as possible. Your specialist doctor and nurse will explain the aim of treatment to you.

Sometimes other treatments such as hormonal therapy or radiotherapy are used to improve symptoms. Your specialist doctor may also talk to you about taking part in a clinical trial to research newer treatments.

The treatment you have is based on:

- the type of cancer you have
- its stage and grade
- where it is
- your general health
- your personal preferences.

Cancer treatments can cause early menopause and affect your fertility (ability to get pregnant). If you still want to be able to get pregnant, talk to your cancer doctor before treatment starts. We have more information about fertility and cancer treatment.

Treating borderline ovarian tumours

Most borderline tumours are found at an early stage and can often be cured with surgery. No further treatment is needed and the tumour rarely comes back.

Sometimes, cells from these tumours spread and attach to nearby areas, such as the peritoneum. These are called on-invasive implants. They do not usually cause problems and often do not need to be treated. Instead, the doctor may monitor them at regular check-ups.

Rarely, borderline tumours spread and behave more like allow-grade cancer. Again, this may not need more treatment. Areas of spread may develop so slowly that you have no symptoms. But sometimes chemotherapy is used.

Treating stage 1 cancer

Some stage 1 cancers in the ovary or fallopian tubes can be cured with surgery alone.

Your doctor may advise you have chemotherapy after surgery to reduce the risk of the cancer coming back. This includes stage 1cancers that are:

- high-grade
- stage 1c.

Treating stage 2 to 4 cancer

You will usually have surgery and chemotherapy or chemotherapy on its own. You may also have treatment with a targeted therapy drug.

Surgery

You usually have surgery to remove as much of the cancer as possible. If the cancer has spread to other areas in the pelvis, you may need more surgery. Sometimes you have chemotherapy before surgery to shrink the cancer and make it easier to remove.

Chemotherapy

You have chemotherapy to:

- shrink the cancer before surgery
- treat any remaining cancer cells that cannot be seen during surgery
- shrink any cancer that could not be removed during surgery.

If you have chemotherapy before surgery, you have a scan mid-way through the course of chemotherapy treatment. If the cancer has shrunk enough, you have surgery before having more chemotherapy. If not, you finish the whole course of chemotherapy.

Sometimes chemotherapy may be the only treatment you have. This is usually when it is not possible to remove the cancer or if you are not well enough for surgery.

Targeted therapy drugs

You may have targeted therapy drugs after chemotherapy to keep the cancer under control.

Drugs called PARP inhibitors are often used. You take them as tablets for as long as they are working for you. This is called maintenance treatment.

You may have a drug called bevacizumab (Avastin®) as a drip, along with chemotherapy or on its own. You may also have it with a PARP inhibitor drug.

Treating cancer that comes back

If cancer comes back, it can usually be treated again with more chemotherapy, targeted therapies and sometimes more surgery.

You may have several courses of chemotherapy and targeted treatments spaced over several years. This can help to keep the cancer under control and improve any symptoms. Sometimes you can have hormonal therapy if you do not want further chemotherapy, or want to delay it.

Treating symptoms of advanced cancer

Sometimes ovarian cancer may cause some discomfort or pain. It may also cause fluid to gather in the tummy, and bowel problems. But these symptoms can be treated and controlled. For example, you may have radiotherapy to reduce pain or bleeding in the pelvis. If you have fluid in the tummy (ascites), your doctor can drain it away to make you feel more comfortable.

Your specialist doctor and nurse will help to make sure your symptoms are controlled. This is called supportive or palliative care. You may see a specialist palliative care doctor or nurse for expert help with your symptoms.

We have more information about coping with advanced cancer.

How treatment is planned

You should be treated by a specialist gynaecological cancer team. These teams are based in larger cancer centres, so you may have to travel for your treatment. They will meet to discuss and decide the best treatment for you. They will consider your own wishes too.

This multidisciplinary team (MDT) will include:

- **a gynaecological oncologist** – a surgeon who specialises in gynaecological cancers
- **oncologists** – doctors who specialise in cancer treatments such as radiotherapy, chemotherapy and targeted therapy drugs
- **a gynae-oncology nurse specialist**
- **a radiologist** – a doctor who analyses x-rays and scans a pathologist – a doctor who examines cancer cells under a microscope and advises on the type and extent of the cancer.
- **A pathologist** – A doctor who looks at cells or body tissue under a microscope to diagnose cancer.

The MDT may also include the following healthcare professionals:

- dietitians
- physiotherapists
- occupational therapists
- radiographers
- psychologists
- counsellors.

Talking about your treatment plan

After the MDT meeting, you will usually see your specialist doctor and nurse. They will talk to you about your treatment plan. It can help to write down your questions before you see them. You may want to ask a family member or friend to come with you. They can help remember what is said and talk with you about it afterwards. You need to know as much as possible before you can make any treatment decisions.

Your specialist doctor should explain:

- the aim of the treatment – whether it is to cure the cancer or control it
- the benefits of the treatment
- the disadvantages of the treatment – for example, the risks and side effects
- any other treatments that may be available
- what may happen if you do not have the treatment.

Cancer treatments can be complex. It can also be hard to concentrate on what you are being told if you are feeling anxious. If the doctor says something you do not understand, ask them to explain it again.

Most people worry about the side effects of treatment. Your doctor or nurse will explain how side effects can be controlled and what you can do to manage them. They can also tell you if your treatment is likely to cause any late effects and how these can be managed.

You may need more than one meeting with your doctor or nurse to talk about your treatment plan.

Making treatment decisions

You and your doctor can decide together on the best treatment plan for you. Your doctor is an expert in the best treatments. But you know your preferences and what is important to you. You can decide how involved you want to be in your treatment plan.

Sometimes doctors need to review a treatment plan. This may be when more information about the cancer becomes available – for example, when the doctor knows the results of surgery to remove the cancer. It may mean making more decisions with your doctor.

Decisions about advanced cancer

For advanced cancer, the aim of treatment is to control the cancer, help you live for longer and improve symptoms.

This can mean you have different treatments depending on when you need them. You may have long periods in between treatments when you feel well and can continue with everyday life. You may have ongoing treatment to control the cancer. This is sometimes called maintenance treatment.

Your doctor can often give you an idea about how well a treatment will work. You may decide to have one treatment instead of another because:

- the side effects are different
- it means you will spend less time at the hospital.

You may need to have a treatment for a while to see if it is helping. Doctors will try to avoid you having unnecessary side effects from a treatment that is not working well.

If it becomes difficult to control the cancer, you may decide not to have further treatment. Your doctor and nurse will support you and make sure your symptoms are managed.

Giving your consent

Before you have any treatment, your doctor will explain its aims. They will usually ask you to sign a form saying that you give permission (consent) for the hospital staff to give you the treatment. No medical treatment can be given without your consent, and before you are asked to sign the form you should be given full information about:

- the type and extent of the treatment
- its advantages and disadvantages
- any significant risks or side effects
- any other treatments that may be available.

If you don't understand what you've been told, let the staff know straight away, so they can explain again. Some cancer treatments are complex, so it's not unusual to need repeated explanations. It's a good idea to have a relative or friend with you when the treatment is explained, to help you remember the discussion. You may also find it useful to write a list of questions before your appointment.

People sometimes feel that hospital staff are too busy to answer their questions, but it's important for you to know how the treatment is likely to affect you. The staff should be willing to make time for your questions.

You can always ask for more time if you feel that you can't make a decision when your treatment is first explained to you.

You are also free to choose not to have the treatment. The staff can explain what may happen if you don't have it. It's essential to tell a doctor or the nurse in charge, so they can record your decision in your medical notes. You don't have to give a reason for not wanting treatment, but it can help to let the staff know your concerns so they can give you the best advice.

Second opinion

A second opinion is an opinion from a different doctor about your treatment. If you think you want a second opinion, talk to your specialist doctor or GP first. Tell them your concerns or ask them to explain anything you do not understand. This might help reassure you.

If you still want a second opinion, you can ask your specialist doctor or GP to arrange it. They are usually happy to do this. You may have to travel to another hospital to get a second opinion. Getting a second opinion could delay your treatment. Check with your doctor if this delay could be harmful to you.

If the doctor you see for the second opinion gives you the same advice, this can reassure you. Sometimes they give you other treatment options to think about.

Surgery

Surgery is one of the main treatments for cancer of the ovary, fallopian tube or peritoneum. You have surgery to remove the cancer. But it also helps doctors to:

- diagnose the type of cancer
- find out more about its stage

You usually have surgery to remove the following:

- the ovaries
- the fallopian tubes
- the womb
- the omentum
- lymph nodes.

If the cancer has spread to other areas in the pelvis, you may need more surgery. Sometimes you have chemotherapy before surgery to shrink the cancer and make surgery easier. If the cancer comes back, it may be possible to have more surgery.

If you have a very early-stage cancer and want children, it may be possible to have only the affected ovary and fallopian tube removed. This is called fertility-sparing surgery.

A surgeon called a gynaecological oncologist will do your surgery (operation). Before you have surgery, your surgeon and nurse will talk it over with you and answer any questions. It is important you understand what your operation may involve.

Surgery to remove the cancer

The surgeon aims to remove all the cancer or as much of it as possible. During the operation, they usually remove:

- the ovaries and fallopian tubes (bilateral salpingo-oophorectomy)
- the womb and cervix (total hysterectomy)
- the omentum (omentectomy).

The surgeon will also check how far the cancer has spread. This is important because it tells them more about the stage of the cancer. During surgery, they:

- take samples of tissue (biopsies) from other areas nearby
- remove some lymph nodes in the tummy and pelvis
- put fluid into the tummy and collect it to test for cancer cells – this is called abdominal or peritoneal washing.

You may also need surgery to other areas to remove as much of the cancer as possible. This depends on where the cancer has spread in the pelvis.

Removing as much of the cancer as possible

Many cancers of the ovary, fallopian tube or peritoneum have spread when they are diagnosed. If the cancer has spread to other areas in the pelvis or tummy, it may not be possible to remove it all. Your surgeon will try to remove as much of the cancer as they can. Doctors sometimes call this debulking or cytoreductive surgery.

Removing part of the bowel

If the cancer has spread to the bowel, you may also need a section of bowel removed. If possible, the surgeon removes the affected piece of bowel and joins the 2 remaining pieces together. This is called a bowel re-join.

Sometimes the surgeon cannot safely join the remaining pieces of bowel together. Instead, they bring the upper end of the bowel out onto the skin of the tummy. This is called a stoma. After the operation, you wear a bag over the stoma to collect stools (poo). A stoma can be temporary to protect the bowel re-join. Or it may be permanent if a safe bowel re-join is not possible.

If you are likely to need part of your bowel removed, your surgeon will talk to you about this before your operation. If you need a stoma, your hospital team and a stoma nurse will give you support and advice.

Surgery to protect your fertility

If you have very early ovarian cancer, it may be possible to have surgery that means you can still get pregnant. This is usually possible if the cancer is stage 1a and is not high grade.

The surgeon only removes the affected ovary and fallopian tube. They leave the other ovary, other fallopian tube and the womb. During the operation, the surgeon checks the other ovary and may take biopsies from it.

If any biopsies, lymph nodes or fluid removed from the pelvis show the cancer has spread, you will need another operation. This is usually to remove the womb, remaining ovary and remaining fallopian tube. You may find this difficult to cope with if you were hoping to have a pregnancy. Your specialist nurse will give you lots of support. They may be able to refer you to a counsellor for further emotional support.

Before your operation

Your doctor and nurse will talk to you about preparing for your operation. Some hospitals may provide support to help you to get fitter. They may have a programme to help you to exercise, stop smoking, eat well and cut down on alcohol. This is sometimes called prehabilitation or enhanced recovery.

If you smoke, it is important to stop or cut down before your operation. This will reduce your risk of chest problems and help your wound to heal after the operation.

Your GP can also prescribe nicotine replacement therapy. You will usually go to a pre-assessment clinic a few days or weeks before the operation.

You will have tests to check your fitness for surgery. This includes blood tests and sometimes an echocardiogram (ECG) to check your heart or chest x-ray to check your lungs.

Your doctor and nurse will explain the operation to you. Make sure you discuss any questions or concerns about the operation with them.

You will also see the doctor who gives the anaesthetic (anaesthetist). They will talk to you about the anaesthetic. They will also explain how any pain will be controlled after surgery.

You will usually be admitted to hospital on the day of your operation or the day before.

Your nurse will give you elastic stockings (TED stockings) to wear during and after the operation. These prevent blood clots forming in your legs.

You may also be given something to drink to help clear your bowel before the operation. Sometimes a doctor or nurse will draw marks on your tummy in case you need a stoma.

After your operation

How quickly you recover will depend on the type of operation you have.

You will be encouraged to start moving around as soon as possible. While you are in bed, it is important to move your legs regularly and do deep breathing exercises. This helps prevent chest infections and blood clots. A physiotherapist or nurse will show you how to do these exercises.

You may have regular injections of a blood-thinning drug to reduce the risk of blood clots. If you need them after you go home, your nurse will teach you, or someone you live with, how to give the injection. Or they can arrange for a district nurse to do this.

Drips and drains

After your operation, you will be given fluids into a vein in your hand or arm. This is called a drip or intravenous infusion. This will be taken out as soon as you are eating and drinking normally.

You may have a drainage tube in your wound or tummy to drain extra fluid into a small bottle. This is usually removed after a few days.

Urinary catheter

You will have a tube (catheter) to drain urine from your bladder. It may be taken out the day after your operation or a few days later. This depends on the type of surgery you have. If you go home with the catheter, it can be removed at a follow-up appointment or by a district nurse.

Pain

It is normal to have some pain or discomfort for a few days after surgery. But this can be controlled with painkillers. If the painkillers are not working, it is important to tell your doctor or nurse as soon as possible. They may change the dose or give you different painkillers.

Immediately after your operation, you may have strong painkillers. You may be given painkillers through one of the following:

- By injection into a muscle. This is done by a nurse.

- An epidural. This is a small, thin tube in your back that goes into the space around your spinal cord. An epidural gives you continuous pain relief via a pump. You will not be able to walk around if you have an epidural in place.
- A patient-controlled analgesia pump (PCA pump). The pump is attached to a fine tube (cannula), in a vein in your arm. You control the pump using a handset that you press when you need more of the painkiller. It is fine to press the handset whenever you have pain. The pump is safe as it is set so that you cannot give yourself too much painkiller.

As pain starts to improve, you will be given milder painkillers as tablets. You may be given a supply to take home. Tell your nurse or doctor if you are still in pain. They can change the dose or give you a different painkiller.

Your wound

The clips or stitches in your wound are usually removed after you go home. A practice nurse at your GP surgery can do this. Some stitches are absorbed by the body and do not need to be removed.

Wound infections can be a complication of surgery. If a wound is infected, it may:

- feel hot to touch
- look red
- look swollen
- leak fluid or pus (discharge)
- make you feel unwell
- cause you to have a fever or high temperature.

Tell your nurse or specialist doctor straight away if you get any of these symptoms, even after you go home. If you cannot talk to your hospital team, contact your GP.

Wind and constipation

You may have difficulty emptying your bowels (constipation) for a few days after the operation. You may also have uncomfortable wind.

Tell the nurses if you have these symptoms. They can give you medicines to relieve discomfort and constipation. Constipation and wind usually get better once you are moving around more. Drinking plenty of fluids and eating high-fibre foods can also help.

Going home

When you go home will depend on the operation you have and how quickly you recover. You are usually in hospital for up to 1 week. If you have surgery for a very early-stage cancer, you may only be in hospital for a few days.

You will have a follow-up appointment with your surgeon and a nurse at a clinic. This will be arranged for you before you go home or soon after. If you live a distance from the hospital, you may have this appointment over the phone.

At this appointment, the surgeon will check your wound is healing and that you are recovering well. They will also explain the results of your operation and tell you more about the stage of the cancer. They will tell you about any further treatment you may need. If you have any problems before your appointment, you can always phone them for advice.

Vaginal bleeding

You may have some light vaginal bleeding or a red-brown discharge for up to 6 weeks after surgery.

Tell your surgeon or specialist nurse straight away if the discharge:

- becomes bright red
- is heavy
- smells unpleasant
- contains clots.

If you cannot get through to your surgeon or specialist nurse, contact your GP.

For 6 weeks after your operation, you should avoid:

- having sex
- placing anything in your vagina – including tampons
- swimming.

This will reduce the risk of infection and help your wounds to heal.

Menopause

If you were still having periods, surgery will bring on the menopause and you will not be able to get pregnant. If you have surgery to protect your fertility, this will not bring on the menopause.

Your surgeon or nurse will explain what to expect before you have surgery. We have more information about managing the symptoms of the menopause on our website.

Sex

After 6 weeks, your wounds are likely to have healed. This means you should be able to have sex again. But it may take longer than this for your energy levels and sex drive to improve.

If you have any questions or concerns, you can talk to your specialist nurse.

Physical activity

After surgery, you will need to take things easy for a few weeks. It can take 3 months or more to fully recover. It may take longer if you have chemotherapy as well.

For about 12 weeks, avoid any activity that:

- makes you breathless
- involves heavy lifting, pushing, pulling or stretching.

Your physiotherapist or nurse will give you advice about physical activity.

You may want to build up your energy levels gradually. Taking regular walks is a good way of doing this. You can increase the amount you do as you feel able.

Driving

How soon you can drive will depend on the surgery you have and how quickly you recover. You need to feel comfortable wearing a seatbelt. You also need to be able to do an emergency stop if necessary. Ask your nurse or doctor for advice. Some insurance companies have guidelines about this. It is a good idea to contact your insurance company to check before you start driving again.

Your feelings

Surgery for cancer of the ovary, fallopian tube or peritoneum is usually a major operation. It is natural to feel low or tearful after these types of surgery. You are likely to feel tired. Your body needs time to recover and heal. This can make it harder to cope with the stress of having cancer and the difficult emotions you may be feeling.

As you recover, you may find it is easier to cope. It can help to talk about how you feel and get more support. Talk to your specialist nurse or give our cancer support specialists a call.

Chemotherapy

When you have chemotherapy

Chemotherapy uses anti-cancer (cytotoxic) drugs to destroy cancer cells. It is one of the main treatments for cancer of the ovary, fallopian tube or peritoneum.

You may have chemotherapy:

- after surgery – to reduce the risk of the cancer coming back (adjuvant chemotherapy)
- before surgery – to shrink the cancer to make the operation more effective (neo-adjuvant chemotherapy)
- to treat any cancer that cannot be removed during surgery
- as your main treatment – if your doctors think surgery is not the best option for you, or if you are not well enough to have a big operation.

Chemotherapy after surgery

You usually have chemotherapy when you have recovered from your operation. You usually start it about 4 weeks after surgery. But it may start up to 12 weeks after.

If you have stage 1 ovarian cancer, you may also have chemotherapy after surgery. Your specialist doctor will talk to you about this. They may ask you to think about having chemotherapy if the cancer was either:

- grade 3
- stage 1c

Chemotherapy before surgery

If you have chemotherapy before surgery, you usually have it every 3 weeks for 3 treatment cycles.

After 3 treatment cycles, you will have a CT scan or MRI scan to check how well the chemotherapy has worked. Your doctors will tell you if the cancer has shrunk enough for you to have surgery.

If you have surgery, you will usually have 3 more cycles of chemotherapy after you have recovered from the operation. If you do not have surgery, you will still have another 3 cycles of chemotherapy. You will have 6 cycles in total.

Chemotherapy drugs for ovarian cancer

You usually have chemotherapy drugs called carboplatin and paclitaxel (Taxol®).

If you are not well enough to cope with the side effects of the 2 drugs, you may have carboplatin on its own.

If you have early-stage ovarian cancer, you may sometimes have carboplatin on its own.

Sometimes you have chemotherapy and a targeted therapy drug called bevacizumab (Avastin®).

Other chemotherapy drugs you may have include:

- cisplatin
- docetaxel (Taxotere®)
- etoposide (VP-16®, Etopophos®, Vepesid®)
- gemcitabine (Gemzar®)
- liposomal doxorubicin (Caelyx®, Myocet®)
- topotecan (Hycamtin®).

We have more information about different chemotherapy drugs and their side effects on our website.

Treating ovarian cancer that comes back

If the cancer comes back, it can usually be controlled by more chemotherapy. If your first treatment with a platinum drug (carboplatin or cisplatin) worked well, you may have the same drug again. But you may have it with other drugs such as liposomal doxorubicin or gemcitabine.

If the cancer comes back soon after treatment has finished, you will have different drugs. For example, you may have liposomal doxorubicin by itself.

Having chemotherapy

You usually have chemotherapy in the chemotherapy day unit and go home after it. The drugs are usually given into a vein (intravenously).

Chemotherapy is given as one or more sessions of treatment. Each session takes a few hours. After the session, you will have a rest period of a few weeks. The chemotherapy session and the rest period is called a cycle of treatment.

The length of a cycle depends on the chemotherapy drugs you have. But most cycles are 1 to 3 weeks long. If you are having a single drug on its own, you may have it every 4 weeks.Your cancer doctor or nurse will explain what to expect. Most courses of chemotherapy are made up of six cycles.

Our booklet Chemotherapy has more information.

Side effects

Chemotherapy drugs may cause unpleasant side effects. But these can often be well controlled with medicines and will usually go away once treatment has finished. Not all drugs cause the same side effects, and some people may have very few. Your cancer doctor or nurse will explain what to expect.

The main side effects of chemotherapy are described on the next few pages, as well as some ways to reduce or control them.

Risk of infection

Chemotherapy can reduce the number of white blood cells in your blood. These cells fight infection. If the number of white blood cells is low, you are more likely to get an infection. A low white blood cell count is called neutropenia.

If you have an infection, it is important to treat it as soon as possible. Contact the hospital straight away on the contact number you've been given if:

- your temperature goes over 37.5°C (99.5°F)
- you suddenly feel unwell, even with a normal temperature
- you have symptoms of an infection – these can include feeling shaky, a sore throat, a cough, diarrhoea or needing to pass urine a lot.
- your temperature goes below 36°C (96.8°F).

Symptoms of an infection include:

- feeling shivery and shaking
- a sore throat
- a cough
- breathlessness
- diarrhoea
- needing to pass urine (pee) a lot, or discomfort when you pass urine.

It is important to follow any specific advice your chemotherapy team gives you.

The number of white blood cells will usually return to normal before your next treatment. You will have a blood test before having more chemotherapy. If your white blood cell count is low, your doctor may delay your treatment for a short time.

Bruising and bleeding

Chemotherapy can reduce the number of platelets in your blood. Platelets are cells that help the blood to clot. Tell your doctor or nurse if you have any bruising or bleeding that you can't explain. This includes:

- nosebleeds

- bleeding gums
- tiny red or purple spots on the skin that may look like a rash.

Some people may need a drip to give them extra platelets. This is called a platelet transfusion.

Anaemia (low number of red blood cells)

Chemotherapy can reduce the number of red blood cells in your blood. These cells carry oxygen around the body. If the number of red blood cells is low, you may be tired and breathless. Tell your doctor or nurse if you feel like this. If you are very anaemic, you may need a drip to give you extra red blood cells. This is called a blood transfusion.

Feeling sick

You may feel sick in the first few days after chemotherapy. Your doctor will give you anti-sickness drugs to help prevent or control sickness. Take the drugs exactly as your nurse tells you. It is easier to prevent sickness than to treat it after it has started.

If you feel sick, take small sips of fluids and eat small amount soften. If you continue to feel sick, or if you vomit more than once in 24 hours, contact the hospital as soon as possible. They will give you advice and may change the anti-sickness drug to one that works better for you.

Feeling tired

Feeling tired is a common side effect. It is often worse towards the end of treatment and for some weeks after it has finished. Try to pace yourself and plan your day so you have time to rest. Gentle exercise, like short walks, can give you more energy. If you feel sleepy, do not drive or operate machinery.

Hair loss

Some chemotherapy drugs cause hair loss. This can range from hair thinning to losing all your hair including eyelashes and eyebrows. The extent of hair loss depends on what chemotherapy drugs you have. Your doctor or nurse can tell you what to expect.

Scalp cooling is a way of lowering the temperature of your scalp to help reduce hair loss. Your nurse can tell you if this is an option for you.

Your nurse can talk to you about ways to cope with hair loss. There are lots of ways you can cover up, if you choose to, such as using wigs, hats, turbans, scarves or bandanas. It is important to cover your head to protect your scalp when you are out in the sun.

Hair loss is usually temporary, and hair grows back after treatment ends. But rarely, hair loss is permanent. Hair may not grow back or it may be thinner than before. If you are worried about this, talk to your cancer doctor.

Sore and red palms of hands and soles of feet

You may get sore and red palms of hands and soles of feet. The skin may also begin to peel. This is called palmar-plantar or hand-foot syndrome. It usually gets better after treatment ends.

Tell your doctor or nurse about any changes to your hands or feet. They can give you advice and prescribe creams to improve any symptoms you have. It can help to:

- keep your hands and feet cool
- moisturise your hands and feet regularly
- avoid tight-fitting socks, shoes and gloves.

Numb or tingling hands or feet (peripheral neuropathy)

This treatment affects the nerves, which can cause numb, tingling or painful hands or feet. You may find it hard to fasten buttons or do other fiddly tasks.

Tell your doctor if you have these symptoms. They sometimes need to lower the dose of the drug or delay treatment for a short time. The symptoms usually improve slowly after treatment finishes, but for some people they may never go away. Talk to your doctor if you are worried about this.

Muscle or joint pain

You may get pain in your muscles or joints for a few days after chemotherapy. If this happens, tell your doctor so they can give you painkillers. Tell them if the pain does not get better. Having warm baths and taking regular rests may help.

Sore mouth and throat

You may get a sore mouth or mouth ulcers. This can make you more likely to get a mouth infection. Use a soft tooth brush to clean your teeth or dentures in the morning, at night and after meals.

If your mouth is sore:

- tell your nurse or doctor – they can give you a mouthwash or medicines to help
- try to drink plenty of fluids
- avoid alcohol, tobacco, and foods that irritate your mouth.

Loss of appetite

This treatment can affect your appetite. Don't worry if you don't eat much for a day or two. But if your appetite does not comeback after a few days, tell your nurse or dietitian. They will give you advice. They may give you food or drink supplements. Or they may suggest changes to your diet or eating habits to help.

Blood clot risk

Cancer and some cancer treatments can increase the risk of a blood clot. Symptoms of a blood clot include:

- throbbing pain, redness or swelling in a leg or arm
- suddenly feeling breathless or coughing
- sharp chest pain, which may be worse when you cough or take a deep breath.

If you have any of these symptoms, contact the hospital straight away on the 24-hour contact number you have been given.

A blood clot is serious, but it can be treated with drugs that thin the blood (anticoagulants). Your doctor or nurse can give you more information.

Targeted therapies

There are different types of targeted therapy drug. Each type targets something in or around the cancer cell that is helping it grow and survive.

Your specialist doctor and nurse will explain which targeted treatment is most suitable for you. You may have targeted therapy drugs for as long as they are keeping the cancer away or controlling it.

Newer targeted therapy drugs are becoming available to treat ovarian, fallopian tube or peritoneal cancer. You may have targeted therapy as part of a clinical trial.

Some of these drugs may only be available in some situations. Your specialist doctor can tell you if a drug is suitable for you. Your specialist doctor can give you advice.

Bevacizumab (Avastin®)

You may have bevacizumab (Avastin®) if the cancer has spread further in the pelvis. You usually have it every 3 weeks along with chemotherapy. Your nurse will give it into a vein as an infusion (drip).

You carry on having bevacizumab when the chemotherapy has stopped. You may continue to have it for 1 year or longer if it is working for you. This is called maintenance treatment. Sometimes you may have bevacizumab along with a drug called olaparib as maintenance treatment.

You may also have bevacizumab if the cancer comes back.

PARP inhibitor drugs

These drugs block a protein called PARP which helps damaged cells to repair themselves. Without the PARP protein, the cancer cells may become too damaged to survive.

You start taking PARP inhibitor drugs several weeks after chemotherapy has finished. You take them for as long as they are working for you. This is a type of maintenance treatment. You take them as tablets or capsules every day.

Niraparib (Zejula®)

You may start niraparib after your first course of chemotherapy finishes if the chemotherapy has worked well.

You may also have niraparib if the cancer comes back and further chemotherapy has been helpful.

Olaparib (Lynparza®)
Olaparib stops the PARP protein from helping cancer cells repair a faulty BRCA gene or a certain type of DNA damage.

You may have olaparib after your first course of chemotherapy if:

- you have a faulty BRCA1 or BRCA2 gene
- chemotherapy has worked well.

You may also have olaparib with bevacizumab as maintenance treatment. You have these after your first course of chemotherapy if:

- tests show the cancer cells are unable to repair a certain type of DNA damage
- chemotherapy has worked well.

If you did not have olaparib during your first treatment, you may have it if the cancer comes back and is responding to further chemotherapy.

Rucaparib (Rubraca®)
Rucaparib is another PARP inhibitor similar to niraparib. You usually only have rucaparib if the cancer comes back and chemotherapy has worked well. Depending on your situation, you may have rucaparib instead of chemotherapy.

Side effects

Your specialist doctor or nurse will explain the side effects of the drug you are having. They will explain how some side effects can be controlled or managed. Always tell them about your side effects, especially if they do not improve or get worse.

Some common side effects of targeted therapy drugs are:

- increased risk of infection, anaemia and bleeding – this is due to a reduced number of blood cells
- tiredness
- feeling sick
- high blood pressure.

Rarely, you may have an allergic reaction when you have bevacizumab. This is more likely with the first or second drip, so you have these more slowly. The nurses will monitor you closely.

We have more information about targeted therapy drugs and their side effects on our website.

Radiotherapy

Radiotherapy treats cancer by using high-energy rays to destroy the cancer cells, while doing as little harm as possible to normal cells.

Radiotherapy is rarely used to treat cancer of the ovary, fallopian tube or peritoneum. It is sometimes used to treat an area of cancer that has come back when other treatments are no longer possible.

It may also be used to control symptoms, such as bleeding, pain or discomfort. This is known as palliative radiotherapy.

Radiotherapy is given in the hospital radiotherapy department. A course of palliative treatment may be given over 1 to 10daily sessions. Each session lasts a few minutes. The length of your treatment will depend on the type and size of the cancer. Your doctor will discuss this with you in detail.

Our booklet "Radiotherapy" has more details.

You may have stereotactic ablative radiotherapy (SABR). This type of radiotherapy targets certain cancers. You may have it if the cancer has spread to only 1 other part of the body – for example, to a lymph node or to the lung or brain.

Hormonal therapy

Hormones help control how cells grow and what they do in the body. Some hormones may encourage cancer cells to grow.

You may have hormonal therapy for ovarian, fallopian tube or peritoneal cancer. But it is not a main treatment. The drugs you may have are often used to treat breast cancer. They block or change the level of hormones such as oestrogen. This may help to slow the growth of the cancer. Tests on the cancer cells can tell if they have receptors (proteins) for oestrogen.

You may have hormonal therapy if the cancer comes back and you do not want more chemotherapy or want to delay it for a while. You usually have it for low-grade cancers which grow more slowly.

The hormonal therapy drugs you may have include:

- tamoxifen – this blocks oestrogen from reaching the cancer cells
- letrozole – this reduces the amount of oestrogen in the body.

These drugs can cause menopausal symptoms such as hot flushes and vaginal dryness. Letrozole can cause joint pain. Your nurse will explain the different side effects and how they can be managed.

We have more information about these drugs and their side effects on our website.

Managing the symptoms of advanced cancer

For advanced cancer, treatments such as chemotherapy or surgery will usually improve any symptoms you have. If you have ongoing symptoms, there are also other ways these can be controlled.

We have more information about managing symptoms of advanced cancer on our website.

These symptoms include feeling sick, tiredness, pain and breathlessness.

We have included some information here about specific symptoms that may be linked with advanced ovarian cancer.

Fluid build-up in the tummy

Cancer that starts in the ovary, fallopian tube or peritoneum can cause a build-up of fluid in the tummy area (abdomen). The fluid collects in between the 2 layers of the peritoneum (see opposite). This is called ascites. The fluid can be drained to make you feel more comfortable.

Having the fluid drained

If there is only a small amount of fluid, you may have it drained in the outpatient clinic. But you may have a short stay in hospital if there is more fluid to drain.

The doctor gives you an injection of local anaesthetic to numb the area. They make a small cut in the skin of your tummy and insert a thin tube. This drains the fluid from your tummy into a drainage bag. The tube is covered with a dressing. The doctor may use a few stitches to hold it in place.

While the tube is in place, a nurse will check how much fluid is draining. They also check your blood pressure regularly. If your blood pressure drops, they may stop or slow the draining. You may only need to keep the drain in for a few hours. But depending on how much fluid there is, it can stay in for a few days.

If the fluid builds up again, your doctor can arrange for you to have it drained. This can be done when you need it. You may have a permanent drain put in if you need to have fluid drained regularly. Your doctor can tell you more about this.

Please see Illustration 4 on Illustrations pages

Blocked bowel

If the cancer is growing close to the bowel, it may put pressure on the bowel. This may gradually narrow the bowel so the contents cannot easily pass through. This is called a blocked bowel or a bowel obstruction.

Sometimes a blocked bowel happens because surgery to the abdomen has caused tissues to stick together. These are called adhesions.

A blocked bowel can cause symptoms such as:

- tummy pain
- bloating
- feeling sick
- vomiting large amounts
- constipation
- diarrhoea.

Treatments for the cancer may improve a bowel obstruction. Or you may need an operation to remove the blocked section of bowel. This may mean you have a temporary or permanent stoma after surgery. Your specialist doctor and nurse will talk this over with you before the operation.

Sometimes a blocked bowel is managed by having fluids through a drip for a time. Your doctor may suggest artificial nutritional support. This is when nutrients are delivered into your body through a tube, either into the gut or into a vein. This is also called artificial feeding. You may have it when you are not able to eat or drink in the usual way.

Fluid in the lungs

If cancer cells spread to the lining of the lungs (pleura), it can cause fluid to build up. This is called a pleural effusion. It can make you breathless. Your doctor can treat this by passing a narrow tube into your chest to drain off the fluid. This usually improves your breathing straight away. If it comes back, the fluid can usually be drained again. It may be possible to have a special catheter put in that allows you to drain the fluid into a bottle while you are at home.

Research – clinical trials

Cancer research trials are carried out to try to find new and better treatments for cancer. Trials that are carried out on patients are known as clinical trials. These may be carried out to:

- test new treatments, such as new chemotherapy drugs or targeted therapies
- look at new combinations of existing treatments, or change the way they are given to make them more effective or reduce side effects
- compare the effectiveness of drugs used to control symptoms
- find out how cancer treatments work
- find out which treatments are the most cost-effective.

Trials are the only reliable way to find out if a different type of surgery, chemotherapy, hormone therapy, radiotherapy, or other treatment is better than what is already available.

Taking part in a trial

You may be asked to take part in a treatment research trial. There can be many benefits in doing this. Trials help to improve knowledge about cancer and develop new treatments. You will be carefully monitored during and after the study.

Usually, several hospitals around the country take part in these trials. It's important to bear in mind that some treatments that look promising at first are often later found not to be as good as existing treatments or to have side effects that outweigh the benefits.

If you decide not to take part in a trial, your decision will be respected and you don't have to give a reason. However, it can help to let the staff know your concerns so that they can give you the best advice. There will be no change in the way that you're treated by the hospital staff, and you'll be offered the standard treatment for your situation.

Clinical trials are described in more detail in our booklet "Cancer research trials (clinical trials)".

Blood and tumour samples

Blood and tumour samples may be taken to help make the right diagnosis. You may be asked for your permission to use some of your samples for research into cancer. If you take part in a trial you may also give other samples, which may be frozen and stored for future use when new research techniques become available. Your name will be removed from the samples so you can't be identified.

The research may be carried out at the hospital where you are treated, or at another one. This type of research takes a long time, and results may not be available for many years. The samples will be used to increase knowledge about the causes of cancer and its treatment, which will hopefully improve the outlook for future patients.

After your treatment

Follow-up

After your treatment, you will have regular check-ups. These are usually every few months to start with.

Your cancer doctor and nurse will ask you how you are recovering from treatment. They will ask if you have any new symptoms. If needed, you may have scans or blood tests.

You can talk to your doctor or nurse about any problems or worries at these check-ups. But if you notice new symptoms or have problems between appointments, contact them for advice sooner.

Many people find they get anxious before the appointments. This is natural. It can help to get support from family, friends.

New symptoms

After treatment, it can take time to work out what feels normal for you. You may worry that every ache or pain you have is a sign of cancer returning. Your specialist nurse can give you information on what symptoms to look out for.

Contact your specialist doctor or nurse if you develop new symptoms or if the symptoms you had when you were diagnosed come back. You do not have to wait for your check-up.

CA125 blood test

CA125 blood tests are sometimes done as part of your follow-up, but this is not always needed. A rising CA125 level may be a sign that the cancer has returned. But for most people, it is just as effective to wait for symptoms of cancer to develop and then start treatment again.

Starting treatment before you have symptoms:

- is no more effective at controlling the cancer
- means you will have side effects of treatment sooner.

Your cancer doctor or nurse can give you more information about this.

If the cancer comes back

If ovarian, fallopian tube or peritoneal cancer comes back (recurs), it can usually be treated again. The treatment you have will depend on:

- the treatment you had before
- how long it kept the cancer away
- if you had any difficult side effects from previous treatments.

You may have further treatment with chemotherapy, targeted therapy and sometimes surgery. You may have different treatments repeated over many years. Your doctor may also talk to you about having newer treatments in a clinical trial.

Well-being and recovery

After treatment, you may just want to get back to everyday life. But you may still be coping with the side effects of treatment, adjusting to physical changes or dealing with some difficult emotions. Recovery takes time, so do not rush it and try to be kind to yourself.

Some people choose to make lifestyle changes to improve their health and well-being. Even if you had a healthy lifestyle before cancer, you may be more focused on making the most of your health.

Eat healthily

A healthy, balanced diet gives you more energy and will help you to recover. Talk to your GP, specialist nurse or a dietitian if you have any special dietary or medical needs.

Be physically active

Being physically active after cancer treatment can:

- boost your energy levels
- keep your weight healthy
- reduce stress and fatigue.

It can also reduce your risk of:

- bone thinning, if you have had an early menopause
- health problems such as diabetes, heart disease and some cancers

Our booklet "Physical activity and cancer treatment" has more information.

Stop smoking and stick to sensible drinking

If you smoke, giving up is the healthiest decision you can make. Stopping smoking reduces your risk of heart and lung disease, bone thinning (osteoporosis), and smoking-related cancers. If you want to stop, your GP can give you advice.

Alcohol has also been linked to a higher risk of some types of cancer and to weight gain. Hence stay away from alcohol as much as possible.

Complementary therapies

Some people use complementary therapies to help them relax or cope with treatment side effects. Some hospitals or support groups offer therapies such as relaxation or aromatherapy. Ask your cancer doctor or nurse what's available in your area. Our booklet Cancer and complementary therapies has more information.

Sex, menopause and fertility

Coping with changes to your sex life

Cancer and its treatment can cause physical and emotional changes that affect your sex life. Side effects may mean you feel too unwell or tired for sex. You may also have changes, such as scars or hair loss, that affect your body image and self-esteem.

Usually, difficulties slowly improve after treatment. If you have a partner, it can help to talk openly with them about how you feel. You may both need some time to adjust. We have more information in our booklet Body image and cancer.

If changes to your sex life are difficult to cope with, there is usually help available. Your specialist nurse can give you advice or arrange expert support if needed. Or you might find it helps to talk to our cancer support specialists.

We have more information in our booklet Cancer and your sex life.

Coping with early menopause

If you have not been through the menopause already, your cancer treatment may cause this. Surgery to remove the ovaries will bring on the menopause straight away. Chemotherapy may cause it more gradually.

Some of the main physical effects of the menopause are:

- hot flushes
- vaginal dryness
- lowered sex drive (libido)
- mood changes.

This can be difficult, particularly when you are already coping with cancer. You can have treatment and support to cope with any symptoms and the emotional effects of early menopause. You can also have treatment to protect you from the long-term effects of menopause, such as brittle bones (osteoporosis) and heart disease.

You may be offered:

- advice and support from your GP or a specialist who treats women with early menopause
- treatment and advice to help you cope with symptoms
- hormone replacement therapy (HRT) or a type of hormonal contraceptive to prevent long-term effects.

Your doctor will explain the possible risks and benefits of any treatment to you. Some women cannot take HRT safely because of the type of cancer they have.

Fertility

Fertility problems may occur after radiotherapy or chemotherapy for ovarian cancer. If you have surgery to remove both ovaries and the womb, you will not be able to become pregnant. If you have early-stage ovarian cancer, you may have treatment to preserve your fertility. But you may want to talk to your specialist doctor or nurse when you are thinking about trying to get pregnant.

We have more information about cancer and fertility in our booklet Cancer treatment and fertility – information for women.

Your feelings and relationships

Most people feel overwhelmed when they are told they have cancer, and have many different emotions. These are part of the process you may go through when dealing with your illness. Partners, family members and friends often have similar feelings and may also need support and guidance to help them cope.

Reactions differ from one person to another – there's no right or wrong way to feel. We describe some of the common emotional effects of cancer here. However, reactions vary and people have different emotions at different times.

JASCAP has a series of booklets on the following topics relating emotional aspects of cancer.

Talking about cancer
Talking to children and teenagers when an adult has cancer
Talking with someone who has cancer
Making or changing your Will
When Cancer Returns
Emotional effects of cancer

JASCAP has a series of booklets on the following topics relating physical aspects of cancer.

Dietary advice for cancer patients
Eating Hints Before During and After Cancer Treatment
Cancer and your sex life
Looking after someone with cancer
Cancer pain
Managing the symptoms of cancer
Other symptoms and side effects of cancer and its treatments
Life After Cancer Treatment
Side effects of cancer treatment
Coping with fatigue
Physical activity and cancer

Please also note that all these booklets (PLUS this booklet itself), in various Indian languages are available on our website www.jascap.org for free download.

NOTES

JASCAP is a charitable trust that provides information various aspects of cancer. This can help the patient and his family to understand the disease and its treatment and thus cope with it better.

JASCAP is registered under the Societies Registration Act, 1860 No. 1359/1996 G.B.B.S.D, Mumbai and under the Bombay Public Trusts Act 1950 No. 18751 (Mumbai). Donations to JASCAP qualify for deduction u/s 80G (1) of the Income Tax Act 1961 vide Certificate No. DIT(E)/BC/80G/1383/96-97 dated 28.2.97 subsequently renewed.

Contact: **Mr. Prabhakar Rao or Ms. Neera Rao**

JASCAP: We need your help

We hope that you found this booklet useful

To help other patients and their families we need and intend to extend our Patient Information Services in many ways.

Our Trust depends on voluntary donations. Please send your donation by cheque or D/D payable in Mumbai in favour of "JASCAP".

Important

DISCLAIMER

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JASCAP
JEET ASSOCIATION FOR SUPPORT TO CANCER PATIENTS
Website: www.jascap.org

MUMBAI OFFICE :

JASCAP
C/O. ABHAY BHAGAT & CO.,
OFFICE NO.4, "SHILPA",
7TH RD., PRABHAT COLONY,
SANTACRUZ (East),
MUMBAI 400 055. INDIA
Phone: 91-22-2617 7543
91-22-2616 0007
e-mail : abhay@abhaybhagat.com

MUMBAI OFFICE :

JASCAP
C/O. SURESH & CO.,
3, NANUMAL NIWAS,
JERBAI WADIA ROAD,
PAREL (EAST),
MUMBAI 400 012. INDIA
Phone: 91374 86989
e-mail : pkrjascap@gmail.com
ganpathykv3@gmail.com

BANGALORE : MS. SUPRIYA GOPI,
455, I CROSS, HAL III STAGE,
BANGALORE - 560 075
Mobile : 0 98863 11931
e-mail : supriyakgopi@yahoo.co.in

MS. MALATHI MOORTHY
Mobile : 098864 00299
e-mail : shreeni63@gmail.com

HYDERABAD : MS. SUCHITA DINAKER &
DR. M. DINAKER, M.D.
FLAT NO. G4, 1st FLOOR,
"STERLING ELEGANZA", STREET NO.5,
NEHRUNAGAR, SECUNDERABAD-500 026
Mobile : 098492 14690
e-mail : suchitadinaker@yahoo.co.in

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