Health
Western Sydney
Local Health District

Women's & Newborn Health
Westmead Hospital

Fact Sheet
Ovarian Cysts

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If you are reading this you have probably been told you have a cyst on your ovary and are worrying that:

- it could be cancer
- it will affect your fertility (chances of having a baby)
- it may need surgery

We hope this Fact Sheet answers some of your questions and reassures you that:

- ovarian cysts are common and often go away by themselves
- ovarian cysts are seldom cancer (especially in women under 50 years, but even older women)
- ovarian cysts usually don't prevent you from falling pregnant in the future

It is also reassuring to know that if surgery is needed, it can usually be done via small cuts. This is called laparoscopic, or keyhole, surgery. Most women go home the day of surgery, with very few staying one night in hospital. Complete recovery from keyhole surgery generally takes a week or two.

The normal ovary and its follicles

Women have two ovaries on either side of the uterus (womb). Ovaries are extremely active in women under 50 years of age.

- They release an egg each month which, if fertilised by a sperm, can become a pregnancy.
- They produce female hormones called estrogen and progesterone which make the lining of the uterus (endometrium) ready for a pregnancy.

Before the menopause, (that time in a woman's life when her periods stop forever), ovaries are approximately 3 x 2 x 2cm in size but, because they are so active, they change in size throughout the month and from one month to the next.

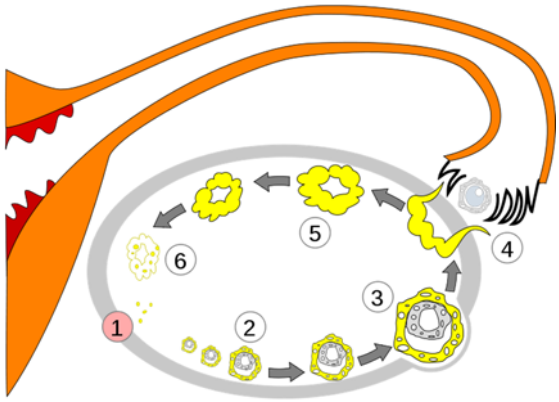
In young women, normal ovaries contain many small 'cysts' (fluid filled sacs) that can be seen on ultrasound, or with the naked eye at surgery.

- These are not true 'cysts' because they are under 1cm in size and we call them follicles.
- On average, there are 5 -10 follicles in each ovary but this varies with age; young women generally have a lot of follicles, while women in their 40s have only a few and women past the menopause usually have none.

Each of these follicles houses an 'egg' which may become a baby if the egg is fertilised by a sperm.

- Each month one follicle becomes the 'dominant follicle' and grows to about 20 mm (2 cm) before releasing the egg.
- Once the egg has been released, the follicle changes to form a structure called a corpus luteum. The corpus luteum is like a small factory, making large amounts of female hormones over the next 10 days to prepare the lining of the uterus to receive a fertilised egg to form a pregnancy.
- If the egg is not fertilised, the corpus luteum begins to shrink and disappear, and a few days later, the lining of the uterus also comes away which causes a menstrual period.

1 - Menstruation
2 - Maturing follicle
3 - Mature follicle
4 - Ovulation
5 - Corpus luteum
6 - Deterioration of corpus luteum



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So what is the difference between a follicle and a true cyst?

The difference is their size:
- a follicle is 10mm (2cm) or smaller
- a dominant follicle is 20-30mm or smaller
- an ovarian cyst is larger than 30mm (3cm) in size

We don't usually consider surgery unless a cyst is larger than 50-60mm (5-6cm) although that may depend on what the cyst looks like and what symptoms it causes. Ovarian cysts are so common that nearly every woman will have one at some stage in her life. Many women will have no problems related to the cyst.

What types of ovarian cysts are there?

There are three main groups of ovarian cysts:

1. **Functional (physiological) cysts**
   These form when the dominant follicle and corpus luteum do not behave as they normally would during a particular menstrual cycle. They are therefore called either:
   - Follicular cysts
   - Corpus luteum cysts

   They are common and mostly go away (resolve) by themselves without treatment.

2. **Benign (non-cancerous) ovarian cysts**
   - Benign tumours / growths
     - Dermoid cysts (also called teratomas)
     - Cystadenomas
   - Endometriomas (small or large blood-filled sacs in the ovary)

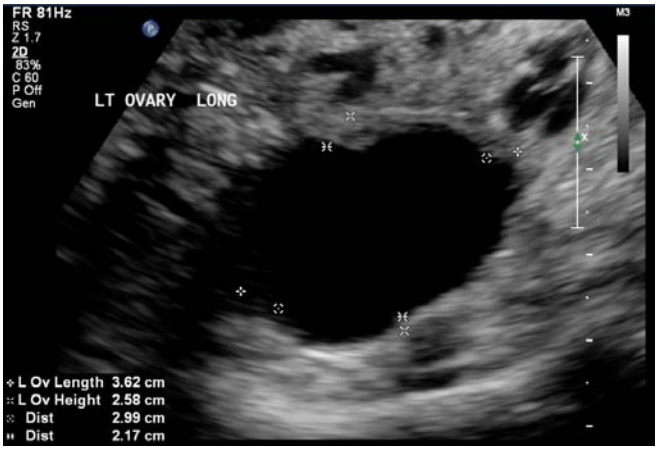
3. **Ovarian cancers**
   Ovarian cancers are rare in women before the menopause and even in post-menopausal woman most ovarian cysts are not cancer.

Functional Cysts

These cysts form when the monthly ovarian cycle does not follow its usual pattern. This is not surprising – our bodies often make small mistakes in normal function.
- Follicular cysts form when the follicle does not release an egg but instead continues to swell up with fluid.
- In the same way, a corpus luteum cyst forms when the corpus luteum does not shrink away but continues to grow in size. Usually it will be filled with clear or light yellow fluid but it can contain blood.

Functional cysts are common and usually go away by themselves, but this can take 2 – 3 months. After the cyst goes away, the ovary usually goes back to working normally. From time to time, another functional cyst may occur.

Not surprisingly, your period may not come at the right time in a cycle affected by a functional ovarian cyst. Often the period comes later than expected but it can come earlier. However, once the cyst has resolved, the menstrual cycles return to normal.



Ultrasound showing a simple follicular cyst – a dark fluid filled space with smooth walls.

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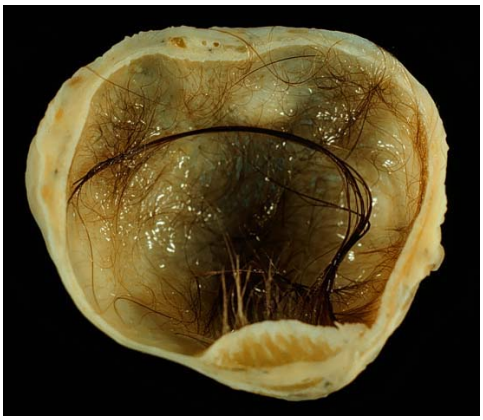
Benign Tumours of the Ovary

Benign (non-cancerous) tumours of the ovary are common.

Dermoid Cysts

Dermoid cysts are benign ovarian tumours which contain many different body tissues – fat, hair, skin and even teeth. They occur mostly in young women and are even found in children. In women with a dermoid cyst, 10% will have one in both ovaries (some may also develop one later in the other ovary).



Dermoid cyst of the ovary

Att: By Photograph by Ed Uthman, MD. [Public domain], via Wikimedia Commons

Dermoid cysts are 'growths', but many grow so slowly (1 – 2 mm per year) that surgery is often not recommended unless they reach about 5cm (occasionally your gynaecologist may recommend removing a smaller dermoid).

At 5 cm, we advise removal of dermoid cysts, as they may:

- cause the ovary to twist on itself (ovarian torsion); this is not common
- occasionally burst

Both of these complications usually cause sudden severe pain and may need urgent surgery. However, a burst cyst that is not bleeding heavily, may be managed by a 'watch and wait' approach.

Dermoid cysts can usually be removed by laparoscopic (keyhole) surgery as a one-day procedure.

Cystadenomas

Cystadenomas are benign tumours containing clear, water-like fluid or mucus fluid (like the mucus in a sneeze). On ultrasound and at surgery, they often look just like functional cysts - the difference is that functional cysts usually go away over a few months while cystadenomas keep getting bigger over time. Once a cystadenoma is about 5 - 6 cm in size and has been there for several months (so it's not likely to be a functional cyst), you and your gynaecologist may decide to have it removed, as it may twist the ovary or burst in the future (both are not common).

Cystadenomas can usually be removed by laparoscopic (keyhole) surgery.

Endometriomas ('chocolate cysts')

Endometriomas are not tumours. They form when there is endometriosis involving the ovary. Endometriosis is a common condition where the lining of the uterus (endometrium) - which should only be found *inside* the uterus - grows *outside* the uterus instead, forming small spots around the pelvis (inside the lower part of the tummy) including inside the ovaries.

These spots bleed when you have a period and form small, blood-filled cysts which gradually grow bigger over time because the blood is trapped inside the ovary. This old blood is dark and thick, and looks like liquid chocolate, giving the cysts their name.

Endometriomas are common and are benign (not cancerous). If they are small and not causing any problems, they do not need to be removed. In fact, many women with an endometrioma don't even know it is there. However, some endometriomas cause pain, pressure symptoms, or problems with fertility (they may make it more difficult for you to fall pregnant).

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In these cases, you and your gynaecologist may decide that you have the endometrioma removed.

Endometriomas can usually be treated by laparoscopic (keyhole) surgery as a single day procedure.

Cancerous Cysts of the Ovary

If there is concern that a cyst might be a cancer, your GP or gynaecologist will send you to a doctor who specialises in women's cancer. These doctors are called gynaecological oncologists. This specialist will carefully work out whether you have a cancer, what type it is and make a plan for your treatment.

What symptoms might ovarian cysts cause?

The symptoms caused by a cyst depend on its size and how quickly it is growing. Many cysts cause no symptoms at all and may only be found during an ultrasound looking for something else.

On the other hand, even quite small cysts may cause symptoms, including any of the following:

- Feeling full in your lower abdomen (tummy)
- Pressure feelings on the bladder which make you feel like you need to urinate (wee) frequently, or pressure feelings on the bowels making it feel uncomfortable when you open your bowels (poo)
- Discomfort (pain) having sex
- Pain –
  - Usually mild and caused by the cyst wall stretching
  - Occasionally quite sudden and severe if the cyst bursts, has sudden bleeding into it, or causes the ovary to twist (ovarian torsion)
- Period bleeding not coming at the right time – either sooner or later than you expect
- Feeling faint and nauseous (need to vomit) – not often, corpus luteum cysts can cause heavy bleeding inside the abdomen (tummy) which makes you feel unwell and light headed but without much pain.

What should I do if think I have an ovarian cyst?

If your symptoms are mild then you should see your GP, who will ask you about your symptoms and examine you. It may be possible for your doctor to feel a cyst by checking your abdomen or by vaginal examination.

Your GP will most likely request:

- A **pap smear** if it's due.
- A **pregnancy test** if there is a possibility you may be pregnant. A pregnancy in the wrong place (the tube, rather than the uterus) can give symptoms just like an ovarian cyst. This type of pregnancy is called an ectopic pregnancy. [*see our Fact Sheet on Ectopic Pregnancy]*
- A **pelvic ultrasound (scan)** – either through the tummy wall or else through the vagina (called a transvaginal scan). A scan through the vagina is close to the ovaries and gives much clearer pictures than a scan through the tummy. A vaginal scan is not uncomfortable, especially since it doesn't need a full bladder. Ultrasound is excellent at seeing a cyst on the ovary and working out what kind of cyst it is.
- Rarely, ovarian cysts can cause particular **blood tests** to become abnormal. Your doctor will decide if you need these tests.

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Management of an Ovarian Cyst

If you have an ovarian cyst, managing it will depend on what type of cyst it is, how big it is, and what problems you are experiencing.

- Functional cysts can be watched for a few months as they will usually go away on their own.
- You and your gynaecologist may decide to have the cyst removed if it:
  - does not go away on its own after 3 months
  - is causing significant pain or pressure symptoms
  - is quite big (more than 6cm)
  - is a type of cyst that does not go away by itself (like a dermoid)

Removal of a cyst can usually be done with **keyhole surgery** (laparoscopy).

Sometimes big cysts need a larger cut on the abdominal (tummy) wall. This operation is called a laparotomy and you will usually need to stay in hospital for 2-3 days after the operation. It also takes a longer to fully recover from this type of surgery.

Managing ovarian cysts before and after the menopause

Before the menopause (when the ovaries stop functioning and your periods stop completely), it is usual to try and remove the cyst (ovarian cystectomy) but keep the ovary. Sometimes it may be necessary to remove the whole ovary (oophorectomy). Remember that, because you have another ovary, your fertility and hormones are usually not affected by losing one ovary.

After the menopause it is more common to remove the entire ovary and tube at the same time as the cyst. This is not because the cyst is cancer, or even might become cancer, but because there is no benefit trying to save the ovary at this age when removing it lessens the chance that you may develop a cancer in that ovary/tube some years later.

What about taking the oral contraceptive pill?

Taking the pill:

- Will not treat a cyst if it is already there, it is better to wait for the cyst to go away by itself.
- Reduces the chance of getting functional ovarian cysts (follicular cysts and corpus luteum cysts) because it stops ovulation. It is worth considering going on the pill if you often develop functional cysts.
- Reduces your chance of developing cancer of the ovary.
- Does not reduce the chance of developing a benign tumour of the ovary (dermoid or cystadenoma).

What if I have severe pain?

If you experience severe pain, nausea, or are feeling faint, you should get someone to take you to hospital or call an ambulance. Further care will depend on the diagnosis your medical team makes after examining you and looking at your ultrasound and other tests.

<u>Treatment may be:</u>

- Urgent surgery (usually keyhole laparoscopic surgery) - generally needed for:
  - Ovarian torsion (twisting of the ovary)
  - A cyst that is bleeding heavily

    [*Please read our fact sheet on Laparoscopy*]

- Giving painkillers and watching / waiting is often the best treatment when there is no sign of torsion and little or no blood in the pelvis. In such conditions, the pain will generally settle within 24 – 48 hours. This works for:
  - sudden bleeding inside a functional cyst – usually a 'haemorrhagic (bleeding) corpus luteum'.
  - a cyst that has burst but is not bleeding heavily.

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If you have symptoms which you may think are due to an ovarian cyst, please talk about them with your doctor. If a cyst is found, remember that most go away without needing surgery. Larger cysts which do not go away can usually be treated with a day surgery. Most cysts are not cancer and early treatment of ovarian cancer increases your chances of being cured.

Other causes of 'cysts'

Sometimes cysts form in structures near the ovaries and it can be tricky for an ultrasound to tell exactly where the cyst is growing. While there can rarely be cysts near the bowel and bladder, the most common place for other cysts to form is in, or near, the fallopian tubes.

- Hydrosalpinx ('water in the tube') – this is where the fallopian tube swells up with fluid, it is often the result of a past infection with a sexually transmitted infection such as chlamydia or gonorrhoea. A hydrosalpinx can affect fertility.
- Paraovarian cyst – a cyst in a fold of tissue next to the tube and ovary which generally requires no treatment.
- Para-fimbrial cysts – small (< 1cm) cysts that grow from the end of the tubes; extremely common, present in at least 25% of women; rarely need treatment.
- Ectopic pregnancy - a pregnancy in the wrong place (the tube) rather than the uterus can sometimes look like an ovarian cyst on ultrasound.

What about Polycystic Ovaries (PCO)?

- PCO means 'many cysts on the ovary' but the 'cysts' that are seen in this condition are not true cysts – instead PCO actually means having lots of small follicles (2 – 9mm).
- Lots of follicles are often normal for young women and is not usually Polycystic Ovary Syndrome (PCOS), particularly if they have regular periods and no abnormal facial or body hair.
- If a woman only has a period every few months and/or she also has a problem with facial/body hair and acne, she may have PCOS. In PCOS, the hormones do not follow the normal menstrual cycle. The woman has many small ovarian follicles. These are not true ovarian cysts and they should not be removed.
  [*Please see our factsheet on* Polycystic Ovary Syndrome (*PCOS)*]

We welcome further feedback on this brochure as a way of continually improving our service.

Send your feedback to:
WSLHD-Get_Involved@health.nsw.gov.au