

n ovarian cyst is a fluid-filled sac arising from the ovary. These cysts can vary in size and number. They may occur in women of all ages at any point in their lives. Most ovarian cysts are harmless, asymptomatic and may resolve on their own.

SYMPTOMS

It should be emphasised that most ovarian cysts are asymptomatic. Thus, the majority of women with ovarian cysts are unaware of the cysts' presence, especially in cases where the cysts are small. When symptoms do occur, affected women may experience one or more of the following symptoms, which may mimic other medical conditions. These symptoms include:

- Fullness or abdominal distension.
- Pelvic pain shortly before a period begins or just before it ends.
- Constant or intermittent pelvic pain unrelated to menses that may radiate to the back.
- Deep pain during intercourse.
- Discomfort or pressure during bowel movements.
- Irregular or heavy menses.
- Desire to urinate more frequently resulting from bladder compression.

Women who experience one or more of the above symptoms should see a gynaecologist immediately, especially if the painful symptoms are severe or when there is a sudden onset of symptoms.

RISK FACTORS

Women of all age groups can develop ovarian cysts, depending on the nature of the cyst. While cancerous cysts do tend to occur most often in older women after menopause, they can, in fact, occur at any age. The risk factors for cancerous cyst include an inherited gene mutation (small percentage) and a family history of ovarian cyst occurrence. Women who have never been pregnant, and women who have a history of cancer of the breast and colon are also vulnerable.

On the other hand, most benign cysts are functional cysts (follicular and corpus luteum) in that they tend to appear and disappear at various times during a patient's menstrual cycles. Thus, they usually occur in younger women of reproductive age. A follicular cyst develops when the follicle does not rupture and release the egg (anovulation). The follicle then grows to form a cyst. A corpus luteum cyst develops when there is bleeding into the follicle after the egg is released. This results in the creation of a cyst, Functional cysts are harmless, asymptomatic and spontaneously resolve within two to three cycles.

Other types of benign cysts include endometriotic cysts, dermoid cysts and cystadenomas. These are not related to the menstrual cycle.

Endometriosis is a condition where the tissues that line the inside of the womb (endometrium) are found outside the womb and these tissues implant into the ovaries to form endometriotic cysts. These endometrial tissues will continue to bleed with each menstrual cycle. Endometriotic cysts may enlarge and rupture, causing severe acute pelvic pain.

Dermoid cysts may contain tissues, such as hair, skin or teeth. This is because these cysts are formed from cells that produce human eggs. They are rarely cancerous. Both endometriotic and dermoid cysts tend to occur in younger women.

Cystadenomas develop from ovarian tissues, and may sometimes become cancerous with time and age. Dermoid cysts and cystadenomas can become large, and cause painful twisting of the ovary. This is known as ovarian torsion.

TREATMENT

The treatment of an ovarian cyst depends on the age of the patient, size and nature of the cyst, as well as the severity of the symptoms. Conservative management, with repeat ultrasound scans a few months later, is appropriate if the cyst is small, asymptomatic, appears to be benign on ultrasound scan, and the ovarian cancer markers are not significantly raised.

Oral analgesia can be used to reduce the pain, but they do not have any effect on the ovarian cyst(s). Hormonal treatment in the form of oral contraceptive pills (OCPs) can help to prevent ovulation and reduce the chances of new cysts developing in future menstrual cycles. This treatment will not make existing cysts go away, but it can help to prevent new functional cysts

cancerous. Surgical treatment can help to remove the cyst without removing the ovary (cystectomy), especially in cases where the cyst is benign and the patient wishes for fertility to be preserved.

On the other hand, the cyst and ovary can be removed together (oophorectomy) in cases where the cyst is cancerous, or if the patient is nearing menopause or already in the stage of menopause. This is because the risk of cancer increases in these older patients.

Both cystectomy and oophorectomy can be performed via laparoscopy (key-hole surgery). Laparoscopy requires more surgical skills, but it is more beneficial to the patient as the procedure has a shorter recovery time, causes less discomfort and is also more aesthetically pleasing. However, in cases where the cyst is cancerous, or is too big or too adherent to be safely removed through laparoscopy, laparotomy (open surgery) will be recommended instead.

FERTILITY

Functional cysts do not affect fertility. Ovarian cysts usually affect fertility when they are part of a syndrome called polycystic ovary syndrome (PCOS). PCOS is a condition where a patient has many cysts (usually at least 10) around the periphery of her ovary. This condition is associated with an inability to ovulate and occurrence of irregular menses. Some (endometriotic) cysts can damage ovarian and tubal function. Surgical complications during a cystectomy may also damage the ovary, increasing the risk of infertility in the future. Oophorectomy, in which the cyst and ovary are removed together, will also reduce the chances of conception.

PREVENTION AND RECURRENCE

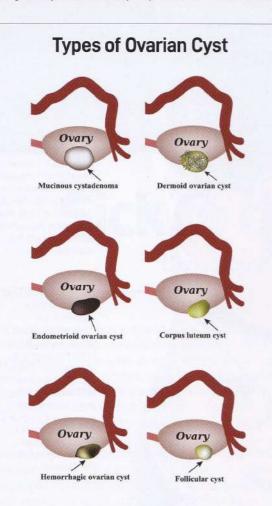
There is no definite way to prevent the occurrence of ovarian cysts, but OCPs may reduce the development of functional cysts and decrease the risk of ovarian cancer.

After surgical treatment, there is still a possibility of cyst recurrence in the same ovary or the development of new cysts in the previously unaffected ovary. Patients should continue to see their gynaecologists for regular checkups and routine ultrasound scans, or when they develop changes in their menstrual cycle, and/or experience pelvic pain or abdominal distension. PRIME

Dr Christopher Ng has trained in the fields of Obstetrics, Gynaecology and General Surgery at SGH, TTSH and KK Women's & Children's Hospital. He is experienced in antenatal and gynaecological ultrasound scans, prenatal screening, antenatal risk assessment and care, natural childbirth, instrumental vaginal deliveries (vacuum and forceps) and caesarean section, colposcopy, cystoscopy, and management of patients with menopausal and fertility problems. Dr Ng is accredited in advanced laparoscopic surgery, and has interest in surgery for urinary incontinence and utero-vaginal prolapse.

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from forming. OCPs can also help to reduce the risk of ovarian cancer, but this risk can persist for more than 30 years after medication is stopped.

Finally, surgery is recommended if the symptoms are severe or are getting worse; particularly if the cyst is large and not deemed to be functional, and if there is suspicion of it being