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## Molar pregnancy

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### Summary

- Gestational trophoblastic disease (GTD) is a term covering pregnancy conditions that involve the placental tissue turning cancer-like.
  - Molar pregnancy is the most common type of GTD.
  - Molar pregnancy is a form of abnormal pregnancy, in which the formed placental-like tissue sometimes invades the wall of the uterus (womb).
  - Molar pregnancy is usually diagnosed early in pregnancy due to bleeding, abnormal features in ultrasound scan and higher than usual levels of the pregnancy hormone, hCG.
  - Sometimes a molar pregnancy diagnosis is made after an evacuation of an abnormal early pregnancy (that is, after the surgical removal of the contents of the uterus).
  - The cause of molar pregnancy is unknown, but risk factors include maternal age of less than 20 years or more than 40 years.
  - If promptly treated, molar pregnancies are curable in 100 per cent of cases.
  - If a molar pregnancy is untreated or is not evacuated completely, a serious condition known as gestational trophoblastic neoplasia can develop.
  - Molar pregnancy can persist (known as persistent GTD), so regular check-ups are needed.
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The term gestational trophoblastic disease (GTD) covers several pregnancy conditions that involve the placental tissue turning cancer-like, or cancers originating from placental tissue. In Australia, this condition occurs in one in every 600 to 1000 pregnancies.

The main types of GTD are hydatidiform mole (also known as molar pregnancy; this is the most common form) and gestational trophoblastic neoplasia (also known as persistent gestational trophoblastic disease or persistent GTD).

Molar pregnancy is a form of abnormal pregnancy, in which the formed placental-like tissue sometimes invades the wall of the uterus. In most cases, the woman miscarries and passes the mole from her body, or it is removed with a surgical procedure called a dilatation and curettage (D&C). This procedure is also known as an evacuation of the uterus.

If treated early, molar pregnancy is 100 per cent curable.

The cause of molar pregnancy is unknown, but a key risk factor is maternal age. Women aged less than 20 years or more than 40 years are most at risk.

### Symptoms of molar pregnancy

The symptoms of molar pregnancy can include:

- vaginal bleeding during early pregnancy
- abnormal appearance of the uterine cavity at the first ultrasound (called a 'snowstorm' pattern).

More rarely, when a diagnosis is not made until later gestation, symptoms include:

- a uterus larger than expected
  - no foetal movement
  - no foetal heartbeat
  - extremely severe morning sickness
  - high blood pressure (hypertension) – early onset of gestational hypertensive diseases.
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## **Risk factors for molar pregnancy**

The cause of molar pregnancy is unknown, but risk factors include:

- maternal age of less than 20 or more than 40 years
- race – Asian women are at increased risk
- dietary deficiencies including lack of folate, beta-carotene or protein
- prior history of gestational trophoblastic disease – the recurrence rate is one in 100.

## **Formation of a molar pregnancy**

After fertilisation, developing cells split into two broad groups – one group becomes the fetus and the other becomes the placenta. The placenta has millions of tiny finger-like projections (villi) that are designed to 'dig in' to the womb wall and tap into the mother's blood supply.

There are two forms of molar pregnancy – complete mole and partial mole. In complete molar pregnancies, there is no foetus, and the placenta grows abnormally. The villi swell and look like little blisters. These blisters are called a hydatidiform mole.

In partial molar pregnancies there is some development of the fetus but it is not normal and cannot survive.

When a woman has a molar pregnancy she experiences the symptoms of pregnancy because the placenta continues to make the pregnancy hormone human chorionic gonadotrophin (hCG). However, the level of hCG is usually higher than normal, which explains why morning sickness can be sometimes more severe than usual. In some cases, the morning sickness is so severe that hospitalisation is needed.

## **Complications of molar pregnancy**

Molar pregnancy is usually diagnosed early with minimal symptoms, but if diagnosis is delayed the following complications can arise:

- haemorrhage
- ovarian cysts
- breathlessness (when it spreads to the lungs)
- pre-eclampsia (toxaemia of pregnancy), involving high levels of certain substances in the blood that raise blood pressure and affect the kidneys and (sometimes) liver function
- excess thyroid hormone production, which causes heart palpitations and other thyroid hormone effects.

If a molar pregnancy is not treated or does not miscarry completely it can progress and cause a range of serious conditions (known as gestational trophoblastic neoplasia), including:

- persistent GTD – persistent growth of the abnormal placental tissue
- invasive mole – the tumour spreads into the wall of the uterus
- metastatic mole – molar cells migrate to other organs of the body and cause secondary tumours. The lungs are common sites for metastatic moles
- gestational choriocarcinoma – a rapidly spreading type of cancer that can travel to any part of the body via the blood vessels or lymphatic system.

## **Diagnosis of molar pregnancy**

Molar pregnancy is diagnosed using:

- Medical history, which could include current pregnancy or recent childbirth, miscarriage or abortion
- physical examination
- blood test to check for high levels of the pregnancy hormone hCG
- ultrasound (the most common imaging tool used)
- other scans including x-rays, computed tomography (CT) or magnetic resonance imaging (MRI) if it is thought the cancer may have spread to other areas of the body.

Molar pregnancy can be hard to diagnose because:

- A woman who experiences a miscarriage will not know whether or not she passed a hydatidiform mole unless the aborted tissue is examined in a laboratory.
- If recent pregnancy, labour and birth were normal, there is often no reason to suspect molar pregnancy until symptoms become apparent.

### **Treatment of molar pregnancy**

Promptly treated, molar pregnancies are curable in 100 per cent of cases. Treatment options depend on various factors, including whether or not the tumour has spread to other areas of the body, but could include:

- dilatation and curettage (D&C) – the cervix is gently opened and the uterine contents are removed (evacuated)
- hysterectomy – if a woman doesn't want any more children, the surgical removal of her uterus may be recommended.

Further treatment is required in 10 per cent of all cases.

Molar pregnancy can persist (continue) after an evacuation procedure. There is a 15 to 25 percent chance of a complete mole persisting, and a 0.5 to 4 per cent chance of a partial mole persisting, so regular monitoring of your hCG levels is required.

The primary test is a blood test for hCG, but sometimes the 24-hour collection of urine can be used to measure hCG levels.

If the hCG level does not fall or continues to rise, or if further tests such as x-rays and scans show that spread has occurred and you are diagnosed with persistent GTD, you will need chemotherapy.

It is important to strictly avoid pregnancy until your hCG level has returned to normal, because a normal pregnancy will produce hCG and make the monitoring blood tests ineffective.

If you need chemotherapy, avoid becoming pregnant for the first year after completion of the treatment so that your hCG blood tests are effective, and to avoid harm to your developing baby.

In Victoria, all women with a hydatidiform mole pregnancy are registered on the Royal Women's Hospital's **Gestational Trophoblastic Disease Registry**. Follow-up is monitored and support is available for women with this diagnosis.

**Queensland also has a state registry** but in other states in Australia, care is usually provided by a specialist gynaecologist.

### **Where to get help**

- Your **GP (doctor)**
- **Gestational Trophoblastic Disease Registry**, Royal Women's Hospital Tel. **(03) 8345 2620**
- Women's health clinic
- **Family Planning Victoria** Tel. **(03) 9257 0100**
- **Cancer Council Victoria** Tel. **13 11 20**

**This page has been produced in consultation with and approved by:**

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