CONDITION

Molar pregnancy

A molar pregnancy is an abnormal pregnancy in which placental tissue grows in an unusual and uncontrolled way.

WHAT IT IS
Abnormal growth of pregnancy-related placental tissue

BODY SYSTEM
Reproductive system

MAIN SYMPTOMS
Vaginal bleeding, severe nausea, pelvic pressure, rapid uterine growth

WHAT CAUSES IT
Abnormal chromosome pattern at fertilisation

HOW IT IS DIAGNOSED
Ultrasound, hCG blood tests, tissue examination

MAIN TREATMENT
Uterine evacuation and hCG monitoring

CAN IT BE CURED?
Yes - treatment and follow-up are usually successful

IS IT AN EMERGENCY?
Sometimes - heavy bleeding or fainting needs emergency care

LONG-TERM OUTLOOK
Usually excellent with complete follow-up

Overview

A molar pregnancy is a rare complication of early pregnancy. It happens when an egg and sperm combine abnormally at fertilisation. Instead of forming a healthy placenta and pregnancy, abnormal placental tissue grows inside the uterus.

Molar pregnancy is part of a group of conditions called gestational trophoblastic disease, or GTD. "Gestational" means related to pregnancy. "Trophoblastic" refers to cells that normally help form the placenta.

There are two main types.

In a complete molar pregnancy , there is abnormal placental tissue but no developing fetus. The genetic material usually comes only from the sperm.

In a partial molar pregnancy , abnormal placental tissue develops alongside some fetal tissue. The pregnancy has an extra set of chromosomes and cannot develop into a healthy baby.

A molar pregnancy needs treatment because the abnormal tissue does not go away safely on its own. After treatment, pregnancy hormone levels must be followed until they return to normal. This monitoring detects the uncommon cases in which molar cells remain and continue growing.

Treatment is highly effective. Most people can later have a healthy pregnancy.

Symptoms

Some molar pregnancies cause no clear symptoms and are found during a routine early pregnancy ultrasound.

When symptoms occur, they can resemble a miscarriage or other pregnancy complications. Possible symptoms include:

A molar pregnancy can produce very high levels of human chorionic gonadotropin , usually called hCG. This is the hormone detected by pregnancy tests. High hCG can contribute to severe nausea and may sometimes affect the thyroid gland, causing a fast heartbeat, shaking, sweating or feeling unusually hot.

Less commonly, molar pregnancy is linked with high blood pressure and signs of pre-eclampsia unusually early in pregnancy. These signs can include a severe headache, vision changes and swelling.

These symptoms do not prove that you have a molar pregnancy. Bleeding and nausea have many possible causes, so an examination and appropriate tests are needed.

- Vaginal bleeding, which may be dark brown or bright red
- Nausea and vomiting that are more severe than expected
- Pelvic discomfort, pressure or swelling
- A uterus that is larger than expected for the stage of pregnancy
- Passing fluid-filled sacs or unusual tissue from the vagina

Causes and risk factors

A molar pregnancy begins because of an error in the chromosomes at fertilisation. Chromosomes are packages of genetic information carried by the egg and sperm.

In a complete mole, an egg without working maternal genetic material is fertilised. The sperm's chromosomes are then copied, or two sperm fertilise the egg. No fetus develops.

In a partial mole, an egg is usually fertilised by two sperm, creating three sets of chromosomes instead of the usual two. Some fetal tissue may form, but it cannot develop into a viable pregnancy.

This chromosome error generally happens by chance. It is not caused by exercise, stress, sex, food, medicines taken as directed or something you did during pregnancy.

Risk is higher after a previous molar pregnancy. It is also higher at the younger and older ends of reproductive age, particularly over age 40. However, a molar pregnancy can happen at any reproductive age and often occurs without a known risk factor.

Diagnosis

Ultrasound and hCG blood tests may suggest a molar pregnancy. An ultrasound uses sound waves to create images of the uterus. A complete mole may have a characteristic appearance, while a partial mole can look more like a miscarriage.

Blood tests measure the amount of hCG. The level may be higher than expected, especially with a complete mole, but hCG alone cannot confirm the diagnosis.

The diagnosis is usually confirmed by examining tissue removed from the uterus under a microscope. This is called histopathology . It can show whether the pregnancy was a complete mole, a partial mole or another type of pregnancy loss.

Other tests may check your blood count, blood group, kidney and liver function, or thyroid function. These help identify complications and prepare for treatment.

If molar pregnancy is confirmed, care is usually coordinated with a specialist GTD service or team. This allows hCG results and follow-up to be recorded consistently.

Treatment and management

The main treatment is removal of the abnormal tissue from the uterus. This is usually done by suction evacuation, a procedure in which the cervix is gently opened and the tissue is removed using suction. It is often performed under anaesthesia.

The removed tissue is sent to a laboratory for examination. If you have Rh-negative blood, your team will consider whether you need anti-D immunoglobulin based on the type of mole, the procedure and local guidance.

After treatment, you will have regular blood or urine tests to measure hCG. Levels should fall as the molar tissue disappears. The exact schedule and length of monitoring differ between complete and partial moles and may also differ between specialist services.

You will usually be advised not to become pregnant until monitoring is complete. A new pregnancy raises hCG, making it difficult to tell whether the rise comes from a healthy pregnancy or remaining molar cells. Your care team can discuss contraception that suits your health and circumstances.

If hCG stops falling, rises again or remains detectable, the remaining cells are called gestational trophoblastic neoplasia , or GTN. This is persistent growth of pregnancy-related cells. It is usually treated with chemotherapy.

People with lower-risk GTN may need one chemotherapy medicine. Higher-risk disease may require a combination of medicines. Treatment is selected by a specialist team using hCG results, imaging and other clinical information.

Surgery, including removal of the uterus, is an option in selected situations. It may be considered if pregnancy is no longer desired or if there are particular complications. Even after surgery, hCG follow-up is still needed.

Complications

Bleeding can cause anaemia, meaning there are not enough healthy red blood cells to carry oxygen. Heavy bleeding is less common but may require urgent treatment.

Other possible complications include infection, overactive thyroid function and ovarian cysts caused by high hCG. These cysts often shrink as hormone levels return to normal.

Rarely, abnormal tissue grows into the muscular wall of the uterus. This is called an invasive mole. Molar cells may also develop into choriocarcinoma, a cancer that can spread outside the uterus. These conditions are forms of GTN and are usually very responsive to specialist chemotherapy.

Follow-up matters because persistent GTN may initially cause no symptoms. A plateau or rise in hCG can identify it before you feel unwell.

Pregnancy loss and the need to delay another pregnancy can also affect emotional health. Grief, anxiety, anger and fear of recurrence are understandable. Emotional support, counselling or contact with a pregnancy-loss organisation may help.

Prevention

A molar pregnancy usually cannot be prevented. It results from a chance chromosome error during fertilisation, not from something you or your partner did.

If you have had a molar pregnancy before, tell the healthcare team early in any future pregnancy. They may arrange an early ultrasound and may check hCG after the pregnancy ends. This does not prevent another mole, but it can support early assessment.

There is no established diet, supplement or lifestyle change that guarantees prevention.

Living with it and what to expect

Physical recovery after uterine evacuation is often similar to recovery after an early pregnancy loss. Bleeding and cramping should gradually improve. Your team will explain what amount and duration of bleeding to expect after your procedure.

hCG usually falls over time, but the speed differs from person to person. A slower fall does not by itself mean cancer. What matters is the pattern across repeated tests and whether the level reaches and stays within the normal range.

Keeping every follow-up test is an important part of care, even when you feel well. If travel, work, caring duties or cost make testing difficult, tell the specialist service so it can discuss practical arrangements.

Most people need no further treatment after the uterus has been emptied. If GTN develops, treatment may continue for several months and hCG monitoring carries on afterward. Chemotherapy can cause tiredness, nausea and other side effects, but the exact effects depend on the medicines used.

A previous molar pregnancy does not usually prevent a later healthy pregnancy. Fertility is generally preserved after suction treatment and, for most people, after chemotherapy for GTN. Future pregnancy is not recommended until your specialist team confirms that surveillance is complete.

A later pregnancy can bring understandable anxiety. Early contact with a maternity team and an early ultrasound may provide useful information and reassurance. No test can promise a particular outcome, but most later pregnancies are not molar.

When to get medical help

Contact a pregnancy assessment service or healthcare professional promptly if you are

pregnant and have vaginal bleeding, persistent pelvic pain or vomiting that prevents you from keeping fluids down. These symptoms need assessment but do not necessarily mean you have a molar pregnancy.

If you are being monitored after treatment, contact your GTD team if you miss testing, receive an unexpected positive pregnancy test or think you may be pregnant. Also report bleeding that returns after it had settled.

Seek emergency care for:

Fever, worsening pelvic pain or unpleasant-smelling discharge after a procedure may indicate infection and need urgent medical assessment.

- Very heavy bleeding, especially if you are soaking pads quickly
- Fainting, marked weakness, confusion or severe dizziness
- Severe or rapidly worsening abdominal or pelvic pain
- Chest pain, difficulty breathing or coughing up blood
- A severe headache with vision changes, weakness or seizures

Common questions

Is a molar pregnancy a real pregnancy?

Fertilisation has occurred, and pregnancy hormones are produced, but the chromosomes are abnormal. In a complete mole there is no fetus. In a partial mole some fetal tissue may form, but it cannot develop into a viable pregnancy.

Is a molar pregnancy cancer?

A molar pregnancy itself is not usually described as cancer. In a small proportion of cases, cells remain after treatment and develop into GTN. Some forms of GTN are cancerous, but they are generally very responsive to specialist treatment.

Why is my pregnancy test still positive after treatment?

Pregnancy tests detect hCG, which can remain in your blood and urine while molar cells are clearing. The result should become negative over time. Repeated laboratory tests are more useful than home tests because they show the pattern accurately.

How long must I wait before trying to become pregnant again?

The waiting period depends on whether the mole was complete or partial, how quickly hCG returns to normal and whether further treatment is needed. Follow the date given by your specialist monitoring service rather than using a general timeline.

Can I have a normal pregnancy afterward?

Most people can later become pregnant and have a healthy pregnancy. A previous mole raises the chance of another slightly, so early ultrasound and follow-up may be offered.

Did I cause the molar pregnancy?

No. It results from a chromosome error during fertilisation. It is not caused by everyday activity, stress, sex or something you ate.

Sources

- Royal College of Obstetricians and Gynaecologists. Molar pregnancy and gestational trophoblastic disease . Patient information
- NHS. Molar pregnancy
- National Cancer Institute. Gestational Trophoblastic Disease Treatment (PDQ®)-Patient Version
- Ngan HYS, Seckl MJ, Berkowitz RS, et al. Diagnosis and management of gestational trophoblastic disease: 2021 update . International Journal of Gynecology & Obstetrics. 2021;155(Suppl 1):86-93
- Soper JT. Gestational Trophoblastic Disease: Current Evaluation and Management . Obstetrics & Gynecology. 2021;137(2):355-370