

Gestational Trophoblastic Neoplasia

Information for people with cancer

This information should not be used to diagnose yourself or in place of a doctor's care.

Gestational Trophoblastic Neoplasia (GTN) describes a range of diseases including: benign hydatidiform mole (also known as molar pregnancy), invasive mole, choriocarcinoma and placental site tumour.

GTN is very rare.

The word “gestational” means “during pregnancy”.

The placenta is the organ that gives oxygen and nutrients to a baby growing in a uterus. The trophoblast is a layer of cells that form the placenta.

Neoplasia is a growth of tissue that forms when cells grow more than they should or do not die when they should. These growths can be benign (not cancer) or malignant (cancer).

Gestational trophoblastic tumours form from the cells that would normally become the placenta during pregnancy.

Diagnosis and Staging

What are the signs and symptoms of GTN?

- Your period is late.
- Your abdomen (belly) is swollen.
- If you are pregnant, the size of your uterus is larger or smaller than expected for that time in pregnancy.
- Your blood has high levels of a pregnancy hormone called human chorionic gonadotropin (HCG).
- Nausea (feeling queasy).

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- A lot of vomiting.
- Pre-eclampsia (sudden increase in blood pressure during pregnancy).
- Overactive thyroid gland.
- Vaginal bleeding that may suggest a miscarriage.
- Passing abnormal tissue that looks like a “bunch of grapes” from your vagina, along with blood.

If you have any signs or symptoms that you are worried about, please talk to your family doctor or nurse practitioner.

How is GTN diagnosed?

Tests that may help diagnose GTN include:

- **Pelvic exam**
- **Blood test:** measures the amount of HCG in the blood.
- **Ultrasound:** to see GTN and if it has spread outside of the uterus.
- **Chest x-ray:** to see if GTN has spread to the lungs.

For more information on tests used to diagnose cancer, see our Screening and Diagnosis pathfinder: bccancer.libguides.com/pathfinder-screening

What are the types of GTN?

Hydatidiform mole (molar pregnancy)

- Usually diagnosed in the first 12 weeks of pregnancy.
- Benign (not cancer), but it could turn into cancer.
- May be called a “molar pregnancy”. However, a normal fetus (baby) does not form.
- It is either complete or partial. In a normal conception, half of the baby's genes come from the male sperm and half from the female egg.

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- **Complete hydatidiform mole:** an empty egg (no genetic material) is fertilized by a sperm and the complete genetic content is only from the sperm. A baby does not develop and a mass of tissue that looks like “a bunch of grapes” fills the uterus.
- **Partial hydatidiform mole:** one egg is fertilized by two sperm and there are three sets of chromosomes instead of the normal two sets. A baby starts to develop, but dies within a few weeks.

There is a higher chance of a complete hydatidiform mole turning into an invasive mole or choriocarcinoma, than a partial hydatidiform mole.

Invasive mole

- These are cancer but they usually do not spread outside of the uterus.
- Happens when hydatidiform mole tissue in the uterus grows into the muscle layer (myometrium) of the uterus.

Choriocarcinoma

- An aggressive tumour that can grow quickly and spread to other parts of the body.
- A tumour develops from the tissue that started as a hydatidiform mole, or tissue that is still in the uterus after treatment for hydatidiform mole.
- Can also develop from tissue that is still in the uterus after an abortion or after the delivery of a baby.

Placental-site trophoblastic tumour

- Very rare type of cancer.
- It starts in the place where the placenta was attached to the muscle of the uterus.
- Usually develops after a normal pregnancy but can develop after an abortion, miscarriage or removal of a hydatidiform mole.

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What are the stages of GTN?

Staging describes the cancer. Staging is based on how much cancer is in the body, where it was first diagnosed, if the cancer has spread and where it has spread to.

The stage of the cancer can help your health care team plan your treatment. It can also tell them how your cancer might respond to treatment and the chance that your cancer may come back (recur).

GTN staging:

- **Stage 1:** Disease is only in the uterus.
- **Stage 2:** Disease has spread outside of the uterus to other genital areas.
- **Stage 3:** Disease has spread to the lungs.
- **Stage 4:** Disease has spread to other parts of the body (distant metastasis).

For more information on staging, see our About Cancer page:

bccancer.bc.ca/health-info/types-of-cancer/about-cancer

Treatment

What is the treatment for GTN?

Cancer treatment may be different for each person. It depends on your particular cancer. Your treatment may be different from what is listed here.

GTN is very curable, especially if found early.

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Surgery

- The treatment for hydatidiform mole is to remove the contents of the uterus using the dilation and curettage (D & C) method.
 - For the D & C method, your cervix is made larger (dilated). A small vacuum-like device is used to remove the contents remaining inside of your uterus.
 - A spoon-shaped instrument is used to remove any tissue that remains on the walls of your uterus.
 - After this procedure, your levels of HCG (the pregnancy hormone human chorionic gonadotropin) will be monitored frequently through blood tests.
- If a placental-site trophoblastic tumour or an invasive molar pregnancy are found only in your uterus, they can be treated with a hysterectomy (an operation to remove your uterus). This option is for patients who do not wish to have any more children.

Systemic therapy

- May be used to treat invasive moles and choriocarcinoma.
- People with low risk cancer can be cured by having one systemic therapy drug or a combination of drugs.
- People with high risk cancer with a high HCG level and metastasis to the brain, liver or more than one organ site are treated with more intensive, multi-drug systemic therapy.
- For more information about systemic therapy go to:

[bccancer.bc.ca/our-services/treatments/systemic-therapy-\(chemotherapy\)](http://bccancer.bc.ca/our-services/treatments/systemic-therapy-(chemotherapy))

What is the follow-up after treatment?

- Follow-up testing and appointments are based on your type of cancer.
- Guidelines for follow-up after treatment are on our website:
www.bccancer.bc.ca/health-professionals/clinical-resources/cancer-management-manual/gynecology/gestational-trophoblastic-neoplasia#Follow-up-Gestational-Trophoblastic-Neoplasia

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- These are guidelines written for your doctor, nurse practitioner or specialist. You can look at them to see what appointments and tests you might need after treatment.
- After treatment, you may return to the care of your family doctor or specialist for regular follow-up. If you do not have a family doctor, please talk to your BC Cancer health care team.
- The BC Cancer Life after Cancer page has information on issues that cancer survivors may face: bccancer.bc.ca/lifeaftercancer

More Information

What causes GTN and who gets it?

These are the risk factors for this cancer. Not all of these risk factors may cause this cancer, but they may help the cancer start growing.

- Occur in people with a uterus who are in their child-bearing years. This is approximately between the age of 12 and 51.
- People are more at risk if they are under 20 or over 40 years old when they become pregnant.
- If a person has had a previous hydatidiform mole (molar pregnancy), it may increase their risk of developing a gestational trophoblastic tumour or another hydatidiform mole.

Statistics

These cancers are very rare so the rates of these cancers occurring (incidence rates) have been combined with other cancers.

B.C.: www.bccancer.bc.ca/health-info/disease-system-statistics/statistics-by-cancer-type

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Note: Available statistics do not have information about the inclusion of transgender and gender diverse participants. It is unknown how these statistics apply to transgender and gender diverse people. Patients are advised to speak with their primary care provider or specialists about their individual considerations and recommendations.

Can I help prevent GTN?

There is no known way to prevent this disease. It is rare.

Is there screening for GTN?

There is no screening for this disease.

Where can I find more information?

- If you have questions about GTN, please talk to your health care team.
- Our librarians can help you find the information you need. Visit our Library page: bccancer.bc.ca/our-services/services/library
- Managing Your Symptoms: <http://www.bccancer.bc.ca/health-info/coping-with-cancer/managing-symptoms-side-effects>
- Emotional Support: www.bccancer.bc.ca/health-info/coping-with-cancer/emotional-support