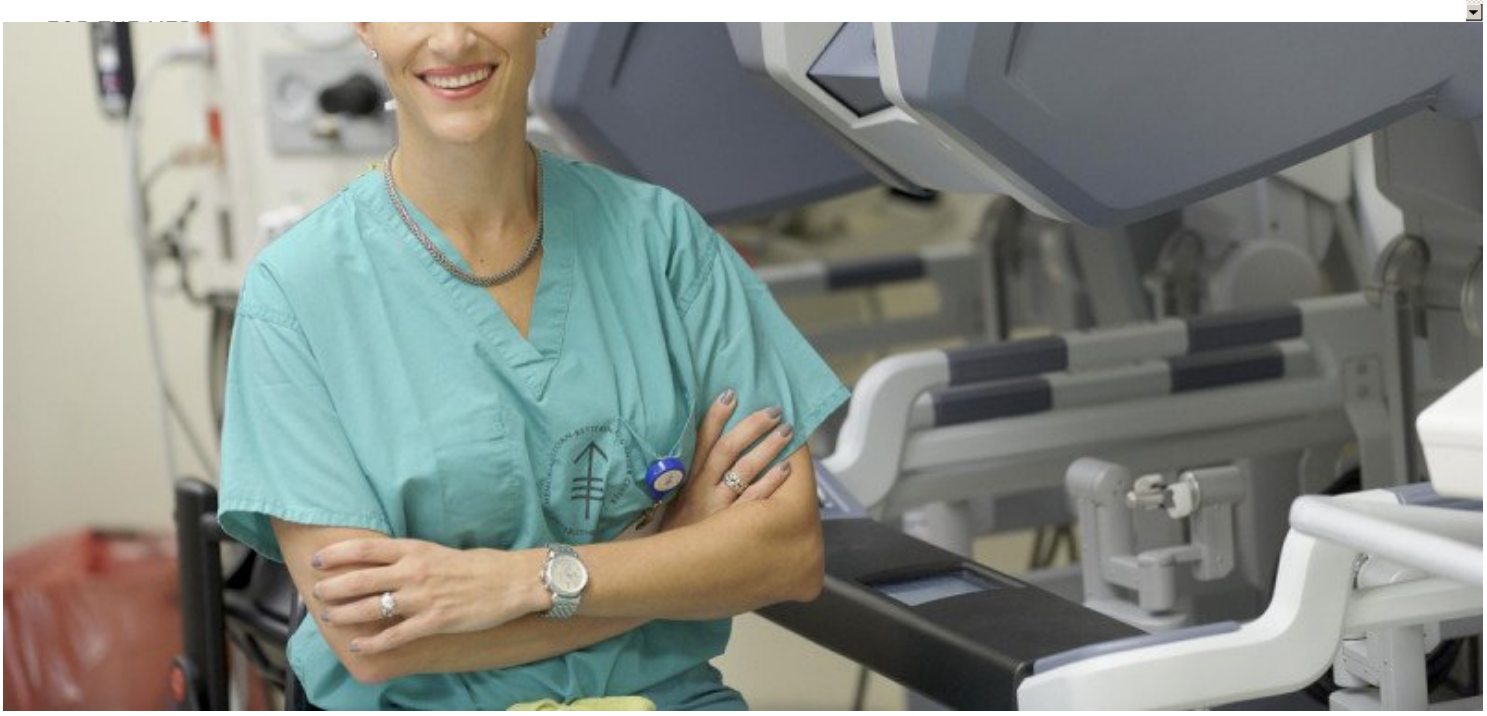

Compassionate, Expert Care -- Gynecologic surgeon Elizabeth Jewell is highly trained in using minimally invasive techniques to treat gestational trophoblastic disease.

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Gestational trophoblastic disease (GTD) is a group of rare tumors that begin during a pregnancy. These tumors start in the cells that would normally develop into the placenta, which connects the fetus to the uterus.

The tumors typically are diagnosed in women at the early or late stages of childbearing potential, usually in patients under age 20 or over age 40. Women who have had a GTD tumor in the past are at slightly increased risk of having another.

GTD can be benign (not cancerous) or malignant (cancerous). Most GTD tumors can be cured, with women able to become pregnant at a later date and experience a normal pregnancy. There are four types of GTD:

partial hydatidiform mole (PHM)

complete hydatidiform mole (CHM)

choriocarcinoma

a group of rarer tumors that includes placental-site trophoblastic tumors (PSTT) and epithelioid trophoblastic tumors (ETT)

Most partial and complete hydatidiform moles—also known as molar pregnancies—are not cancerous, and can be removed through an outpatient surgical procedure called Dilation & Curettage (D&C). They have the ability to become cancerous, however. Partial hydatiform moles almost never become cancerous, but about one in five complete hydatiform moles do.

In contrast, all choriocarcinomas, PSTTs, and ETTs are considered cancerous.

## Hydatidiform Mole

A hydatidiform mole is typically a benign, treatable condition. This rare tumor arises after the sperm and egg join and do not develop into a fetus; instead, tissue that resembles grape-like cysts forms.

A hydatidiform mole may be complete or partial. A complete hydatidiform mole is caused when one or two sperm cells fertilize an egg that contains no DNA. A partial hydatidiform mole occurs when two sperm cells fertilize a normal egg. A viable pregnancy cannot result from a hydatidiform mole.

This disease generally becomes evident six to ten weeks after conception—usually when a woman, believing that she is pregnant, starts having vaginal bleeding. Around six to ten weeks of pregnancy is also when a woman typically begins her prenatal care with an obstetrician and has her first ultrasound and blood work; this is the point at which most women are diagnosed with a hydatiform mole.

A woman with a hydatiform mole will register a positive home urine pregnancy test because these kits detect the presence of a hormone produced during pregnancy called beta-human beta-chorionic gonadotropin (beta-hCG, or HCG). However, the level of HCG, measured with a blood test at a doctor's office, can be higher in women with a hydatiform mole than in women experiencing a normal pregnancy.

## Choriocarcinoma

A choriocarcinoma is even rarer than a hydatidiform mole. This type of GTD may have begun as a hydatidiform mole or may arise from tissue that remains in the uterus following a miscarriage or full-term delivery of a baby.

Unlike a hydatidiform mole, a choriocarcinoma is a malignant and more aggressive form of GTD that spreads into the muscle wall of the uterus. A choriocarcinoma can also spread more widely to other parts of the body such as the lungs, liver, and/or brain.

A woman with a choriocarcinoma may register a positive home urine pregnancy. However, when the HCG levels are measured through a blood test at a doctor's office, they will be much higher than in women experiencing a normal pregnancy.

### Symptoms

A woman with an hydatidiform mole (partial or complete) or choriocarcinoma may experience one or more of these symptoms:

irregular, non-menstrual vaginal bleeding, possibly with blood clots or a watery brown discharge

pelvic pain or discomfort

nausea and vomiting that are more frequent and severe than what a woman typically experiences during a normal pregnancy

fatigue and shortness of breath due to anemia resulting from blood loss through vaginal bleeding

faster growth than expected for weeks of pregnancy, due to extension of the uterus

rapid heartbeat, warm skin, and mild tremor or shaking; caused by an overactive thyroid gland, this complication may occur rarely in women with high HCG levels

preeclampsia (also known as toxemia)—a pregnancy-related condition which can cause a sharp rise in blood pressure

## Placental-Site Trophoblastic Tumor/Epithelioid Trophoblastic Tumor

Placental-site trophoblastic tumors (PSTT) and epithelioid trophoblastic tumors (ETT) are the rarest forms of GTD. These tumors develop at the place where the placenta attaches to the wall of the woman's uterus.

These types of GTD rarely occur during a pregnancy, but rather tend to develop several months, or even years, after the healthy delivery of a child. While these tumors may be found when they are still confined to the uterus, they are also sometimes diagnosed at an advanced stage—after having spread from the uterus to the lungs, liver, and brain.

With PSTTs and ETTs, HCG levels are often lower than seen in other types of GTD, and also less reliable in diagnosing and monitoring the disease.

### Symptoms

A woman with a PSTT or ETT may experience one or more of these symptoms:

amenorrhea (absence of normal menstrual bleeding)

with PSTT, symptoms of nephrotic syndrome develop in approximately one in ten patients. Symptoms of this kidney problem in which large amounts of protein leak into the urine include swelling (especially notable around the eyes, ankles, and feet), weight gain resulting from fluid retention, and foamy urine. The kidney problem resolves with treatment of the PSTT.




NEXT

Diagnosis & Treatment of Gestational Trophoblastic Disease (GTD)