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# **Cancer During Pregnancy**

It is not common to be diagnosed with cancer during pregnancy, but it can happen. In fact, thousands of cancers occur during pregnancies each year in the United States.

The most common types of cancer found during pregnancy are, understandably, similar to the most common cancers in younger women. They include breast, cervical, thyroid, colon, and ovarian cancers, as well as melanoma, lymphoma, and leukemia.

- Finding cancer during pregnancy
- Does pregnancy affect survival rates for cancer?
- Is it safe to get cancer treatment during pregnancy?
- Treating cancer during pregnancy
- Can cancer spread to the baby?
- Can I breastfeed during cancer treatment?
- Fertility and cancer

Although it's less common, someone might become pregnant while getting treatment for cancer. If this happens, the approach to treatment is the same as if the cancer were diagnosed during pregnancy.

# Finding cancer during pregnancy

When cancer is found during pregnancy, it's usually because a person feels a new lump, has a new pain, or notices other body changes that lead to a visit to the doctor. In some cases, exams and lab tests that are done as part of the routine care during a pregnancy might show something abnormal that turns out to be cancer.

#### Cancers can be harder to find when you're pregnant

During pregnancy, it can sometimes be hard to know if changes in your body are from the pregnancy or from cancer. For example:

- Changes in hormone levels during pregnancy can cause the breasts to become larger, lumpy, and/or tender. This can make it harder for you or your doctor to notice a lump caused by cancer until it gets quite large.
- Bleeding from the rectum could be from benign hemorrhoids, which are common during pregnancy, or from colon or rectal cancer.
- Feeling tired could be from weight gain from the pregnancy or from low red blood cell counts (anemia), which can be seen during pregnancy or with cancers such as leukemias and lymphomas.
- The growth of the fetus and uterus can make it hard to detect ovarian tumors.

Because of these challenges, when cancer develops during a pregnancy, it's often diagnosed at a more advanced stage than it would be otherwise.

If you find a lump, have a new pain, or notice any other changes in your body that concern you, don't ignore them. Tell your doctor or nurse right away because any suspicious changes should be checked out.

### Are imaging tests safe during pregnancy?

If there is a concern someone pregnant might have cancer, or if cancer is found during pregnancy, <u>imaging tests</u><sup>1</sup> might be needed. The main concern with any imaging test during pregnancy is whether it might be harmful to the fetus. This may be a concern if:

- The test exposes the developing fetus to radiation, especially during the first trimester
- A chemical has to be injected into the body before the test

Below are some common imaging tests that might be done to diagnose or to <u>stage</u> <u>cancer</u><sup>2</sup>, along with the possible effects of each on the fetus:

**Mammograms** (x-rays of the breast) can find most breast cancers that start during a pregnancy. It's generally thought to be safe to have a mammogram during pregnancy. The small dose of radiation is focused on the breasts, so most of it doesn't reach other parts of the body. For more information, see <u>Finding Breast Cancer During Pregnancy</u><sup>3</sup>.

thin, hollow needle into the right place for the biopsy. Needle biopsies are usually done as an outpatient procedure (meaning you will go home the same day) even if you are pregnant. If only local anesthesia (medicine that numbs just the abnormal area or skin over where the biopsy will be done) is needed for the biopsy, this causes little risk to the fetus.

If a needle biopsy doesn't give a clear answer or if a needle cannot reach the area of concern, a **surgical biopsy** is typically needed. For this type of biopsy, a larger piece of tissue or the entire lesion is removed through a cut (incision). Surgical biopsies are often done under general anesthesia (where you are given medicine to put you into a deep sleep), which carries a small risk to the fetus. If a surgical biopsy is needed, it might be d 54At(del aenbe de36 g 1 31 gncinorimsthe if ap0 1 7liln c)f carru arted, belieugh ao be1 0 0

If you are pregnant and have cancer, you might have hard choices to make, so get expert help and be sure you know all your options. Cancer can usually be treated safely during pregnancy, although the types of treatment and the timing of treatment might be affected by the pregnancy. The main types of treatment for cancer are discussed in more detail below, but here are some general principles about the safety of treatment during pregnancy:

- It is generally safe to have surgery for cancer during certain times of the pregnancy.
- **Chemotherapy** seems to have limited side effects for the fetus if given in the second or third trimester of pregnancy, but it isn't safe in the first trimester.
- Radiation therapy to the abdominal or pelvic area near the fetus is not safe during pregnancy, but radiation to an area farther away in the body (for example, the neck) might be an option in special circumstances when shielding is used to protect the fetus.
- Other cancer treatments, such as **hormone therapy** and **targeted drug therapy**, are more likely to harm the fetus and are not usually given during pregnancy.
- It's not clear how much of a risk **immunotherapy** might pose to the fetus at this time. More research in this area is needed.

## **Termination of pregnancy**

Most often, cancer can be treated during pregnancy. For many types of cancer, studies generally haven't found that ending a pregnancy in order to get treatment improves outcomes.

While ending the pregnancy isn't routinely recommended when cancer is found, each person's situation is unique, and treatment choices can become complicated if there is a conflict between the best-known treatment for the cancer and the well-being of the baby.

For example, for some advanced or aggressive cancers that occur early in pregnancy, treating the cancer right away might offer the best chance of saving the mother's (and possibly the baby's) life. If this is the case, the health care team (including the cancer doctors and OB/MFM doctor) might advise considering ending the pregnancy. This can be a very hard and unsettling decision to face, so it can often be helpful to speak with and get emotional support from a counselor, psychologist, or other trusted member of your health care team.

Laws regarding terminating a pregnancy are different in each state and should be part

One way to do this is with a

delivery because it can lower the mother's and baby's blood cell counts<sup>9</sup>

thought to be unsafe for the baby if taken during pregnancy, but there are some exceptions.

Targeted drugs known as *tyrosine kinase inhibitors (TKIs)* are known to cross the placenta, and most are not recommended during pregnancy. But one TKI, imatinib, is considered safe to use after the first trimester to <u>treat chronic myeloid leukemia</u> (CML)<sup>13</sup>.

In general, most targeted drugs aren't used until after delivery.

### Immunotherapy drugs during pregnancy

Most <u>immunotherapy drugs</u><sup>14</sup> (such as immune checkpoint inhibitors and monoclonal antibodies) have not been studied in pregnancy, so they aren't considered safe to give.

However, rituximab, a drug used to treat certain lymphomas and leukemias, can be used with caution in the second and third trimesters. Interferon-alpha (IFN-) is another immunotherapy drug that can be used safely during the entire pregnancy, but it is not often used for cancer treatment.

Overall, the use of immunotherapy drugs is usually delayed until after birth.

# Can cancer spread to the baby?

In very rare cases, cancers (most often melanomas) have reached the placenta (the organ that connects the mother to the fetus) and then spread to the fetus. However, this is extremely uncommon.

# Can I breastfeed during cancer treatment?

Most doctors recommend stopping (or not starting) breastfeeding if you have just had a baby and are about to be treated for cancer. Many chemo, hormone, and targeted therapy drugs can enter breast milk and be passed on to the baby. Breastfeeding isn't recommended if you are being treated with these types of drugs, and sometimes it might not be safe to restart breastfeeding until months after treatment has ended.

If you have questions, such as when it might be safe to start breastfeeding, talk with your health care team. If you plan to start breastfeeding after you've stopped for a while, plan ahead. Breastfeeding (lactation) experts can give you extra help if you need it.

## Fertility and cancer

Cancer and its treatment can sometimes affect a person's ability to have children. See <u>Female Fertility and Cancer</u><sup>15</sup> to learn how cancer and its treatment can affect fertility, ways to help preserve fertility, and possible fertility options available after treatment.

# **Hyperlinks**

- 1. <u>www.cancer.org/cancer/diagnosis-staging/tests/imaging-tests/imaging-radiology-tests-for-cancer.html</u>
- 2. www.cancer.org/cancer/diagnosis-staging/staging.html
- 3. <u>www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/finding-breast-cancer-during-pregnancy.html</u>
- 4. <u>www.cancer.org/cancer/diagnosis-staging/tests/imaging-tests/nuclear-medicine-scans-for-cancer.html</u>
- 5. www.cancer.org/cancer/diagnosis-staging/tests/biopsy-and-cytology-tests.html
- 6. www.cancer.org/cancer/managing-cancer/treatment-types/surgery.html
- 7. <u>www.cancer.org/cancer/types/breast-cancer/treatment/surgery-for-breast-cancer.html</u>
- 8. <u>www.cancer.org/cancer/managing-cancer/treatment-types/chemotherapy.html</u>
- 9. www.cancer.org/cancer/managing-cancer/side-effects/low-blood-counts.html
- 10. www.cancer.org/cancer/managing-cancer/treatment-types/radiation.html
- 11. www.cancer.org/cancer/managing-cancer/treatment-types/hormone-therapy.html
- 12. www.cancer.org/cancer/managing-cancer/treatment-types/targeted-therapy.html
- 13. <u>www.cancer.org/cancer/types/chronic-myeloid-leukemia/treating/targeted-therapies.html</u>
- 14. <u>www.cancer.org/cancer/managing-cancer/treatment-types/immunotherapy.html</u>
- 15. <u>www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/fertility-and-women-with-cancer.html</u>
- 16. <u>www.cancer.org/cancer/types/breast-cancer/screening-tests-and-early-detection/finding-breast-cancer-during-pregnancy.html</u>
- 17. <u>www.cancer.org/cancer/types/breast-cancer/treatment/treating-breast-cancer-during-pregnancy.html</u>
- 18. <u>www.cancer.org/cancer/types/breast-cancer/living-as-a-breast-cancer-survivor/pregnancy-after-breast-cancer.html</u>
- 19. www.cancer.org/cancer/types/hodgkin-lymphoma/treating/hodgkin-disease-in-

- pregnancy.html
- 20. <u>www.cancer.org/cancer/survivorship/long-term-health-concerns/pregnancy-after-cancer.html</u>
- 21. pressroom.cancer.org/SCOTUS-2022
- 22. <u>www.fightcancer.org/sites/default/files/cancer-care-and-reproductive-health-v4.pdf</u>
- 23. <u>www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/how-cancer-treatment-affects-fertility.html</u>
- 24. <u>www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/fertility-and-women-with-cancer.html</u>
- 25. <u>www.cancer.org/cancer/managing-cancer/side-effects/fertility-and-sexual-side-effects/fertility-and-men-with-cancer.html</u>

#### Words to know

First trimester: The first 3 months of pregnancy or weeks 0 to 12

Second trimester: The middle 3 months of pregnancy or weeks 13 to 28

**Third trimester:** The last 3 months of pregnancy or weeks 29 to 40

#### To learn more

For related information from the American Cancer Society, please visit the following pages:

#### More on cancer and pregnancy

<u>Finding Breast Cancer During Pregnancy</u><sup>16</sup> <u>Treating Breast Cancer During Pregnancy</u><sup>17</sup> <u>Pregnancy After Breast Cancer</u><sup>18</sup> <u>Hodgkin Lymphoma Treatment During Pregnancy</u><sup>19</sup> <u>Having a Baby After Cancer: Pregnancy</u><sup>20</sup>

#### Impact of recent changes in the law on cancer and pregnancy

ACS Highlights Impact of Dobbs v. Jackson Ruling on Cancer Patients and Their Families<sup>21</sup> Cancer Care and Reproductive Health<sup>22</sup> (ACS Cancer Action Network)

#### Fertility and cancer

<u>How Cancer and Cancer Treatment Can Affect Fertility</u><sup>23</sup> <u>Female Fertility and Cancer</u><sup>24</sup> <u>Male Fertility and Cancer</u><sup>25</sup>

### References

Lambertini Tf0Peccatori FA, Azim HA Jr. Targeted agents for cancer treatment duringpregnancy. 4):30

project. 2):17. Published 2020 Feb 5. doi:10.1007/s11912-

cancer. Int J Gynecol Cancer. 2021;31(3):314-322. doi:10.1136/ijgc-2020-001776.

Last Revised: November 17, 2022

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