

## Pregnancy and Cancer

Pregnancy and cancer is uncommon and little research is available to help guide patients and doctors. When cancer occurs during pregnancy, it creates anxiety and pressure on the patient, family and the doctor.

The most common cancers in pregnant women are **breast, cervical, leukemia, malignant melanoma and lymphoma**. Each situation is reviewed on an individual basis. Doctors will take into account that there are two patients involved – mother and unborn baby! Specifically the doctors will consider the following with each patient:

1. The impact of pregnancy on the cancer
2. The effects of the cancer and its treatment on the mother
3. The effects of the cancer and its treatment on the fetus (unborn baby)

Depending on the type of cancer, pregnant women are able to undergo most cancer treatments. Together, you and your doctor will review all of your choices, and you will make the decision as to whether you will continue your pregnancy.

### Diagnostic and Treatment Issues During Pregnancy

#### Informed Consent

The decision to have any test or treatment rests solely with you. But to make a good decision you must be well informed of your options and their risks and benefits. Before agreeing to any test or treatment, be sure your doctor tells you:

- What the test or treatment involves and why it is recommended
- Risks and side effects of the test or treatment
- What is likely to happen with and without treatment
- Available alternatives
- Advantages and disadvantages of one treatment over another

After you have been given this information, you will be asked to sign an **informed consent** form. This form certifies that you understand what procedures will be done, the risks involved, and that you have agreed to have them done.

## Diagnostic Tests

You may have concerns about diagnostic tests, such as x-rays, magnetic resonance imaging tests (MRIs), ultrasounds and biopsies.

Research has shown that radiation levels in diagnostic x-rays are minimal and do not harm the fetus. The technician will use a lead shield to cover your belly for extra protection. Other diagnostic tests, such as MRIs, ultrasounds and biopsies do not use radiation and are considered safe during pregnancy.

Some diagnostic tests use a liquid **radioactive iodine** to help stage cancer (figure out the extent of the cancer and whether it has spread to other parts of the body). Radioactive iodine cannot be used during pregnancy because it can damage or destroy the fetus' thyroid gland.

## Cancer Treatments

Before a cancer treatment plan is decided, you and your doctors must first consider the best treatment and the possible risk to the fetus. You and your doctors should also discuss life-threatening emergencies.

The type of treatment given will depend on the following:

- The trimester of your pregnancy.
- The type, location, size and stage of the cancer
- Your wishes

Treatment may be delayed until the second or third trimesters. When cancer is diagnosed later in pregnancy, the doctor may wait to begin treatment after the baby is born or may consider inducing your labor early.

Cancer treatments that are commonly utilized during pregnancy include surgery and chemotherapy. Radiation is generally not utilized during pregnancy. After careful evaluation, your doctor will develop a treatment plan based on your individual circumstances.

## Questions to Ask Your Physician Before Beginning Treatment

The following are common questions about cancer treatment during pregnancy. You may want to ask your **oncologist** (who is your cancer doctor) and **obstetrician** these questions before starting treatment.

1. How will you work with my obstetrician?
2. What kind of chemotherapy do you recommend?
3. What are the risks and benefits of chemotherapy?
4. Can I have any other type of treatment?
5. What are the risks and benefits of those other types?
6. How should I expect to feel during chemotherapy?
7. Will the chemotherapy affect my delivery?
8. Will I be able to breast feed?
9. What can I do to ensure a safe delivery and recovery?

10. What problems should I report to you?
11. What type of activity or exercise should I do?
12. How often should I see you for a checkup?
13. How often should I see my obstetrician?
14. Do I need to have any special tests?
15. Should I see a dentist before I begin my treatment?

## **Surgery**

Surgery is considered the safest option in the second trimester for some forms of cancer because there is little risk to the fetus. Surgery, as a treatment option, depends on:

1. Trimester of pregnancy
2. Type of surgery
3. Type of anesthetic used
4. Length of surgery
5. Type and stage of cancer

## **Chemotherapy**

**Chemotherapy uses drugs to kill cancer cells.** Giving chemotherapy drugs during pregnancy can cause health problems in the mother, such as malnutrition and anemia (low blood count). It is important you get adequate nutrition and take prenatal vitamins.

First trimester – The fetal effects of chemotherapy drugs during the first trimester of pregnancy are unclear. In certain circumstances it may be necessary to start chemotherapy as soon as the diagnosis of cancer is made. An example would be acute leukemia. Even if the diagnosis is in the first trimester and the use of chemotherapy becomes necessary most of a baby's major organ systems are already formed by 8 weeks of pregnancy.

Second and third trimesters - Many chemotherapy drugs can be used during the second and third trimester of pregnancy without harming the fetus, since major organ formation has been completed.

For more information about chemotherapy, please ask your nurse for a copy of *Guide to Managing Your Chemotherapy*.

## **Radiation Treatment**

First trimester - Radiation treatment effectively treats cancer by using high-energy rays to pinpoint and destroy cancerous cells in your body. Radiation treatment is not recommended during the first trimester because it can harm the fetus.

Second and third trimesters - Using radiation treatment during the second or third trimesters often depends on the radiation dose and the area of the body being treated. It is usually delayed until after the birth of the baby.

Women with thyroid cancer usually receive a liquid **radioactive iodine** to treat the disease. Radioactive iodine **cannot** be used during pregnancy because it can damage the fetus' thyroid gland. Other treatment options will be discussed with you.

## **Managing Pregnancy During Cancer Treatment**

If you decide to remain pregnant, you will receive prenatal care from an obstetrician who specializes in high-risk births. Prenatal risks include the following:

- Anemia is low red blood cell count.
- Thrombocytopenia is a decrease in the number of platelets in the blood, resulting in the potential for increased bleeding and decreased clotting.
- Disseminated Intravascular Coagulation (DIC) is a condition that prevents a person's blood from clotting normally. It may cause excessive clotting (thrombosis) or bleeding (hemorrhage) throughout the body.
- Premature delivery can occur as a result of physical stress of illness, treatment or side effects.
- Infection

Although you will receive care from different doctors concerning the cancer and your pregnancy, they will work together to carefully monitor your care.

## **Tips for Staying Healthy During Your Pregnancy and Cancer Treatment**

You can take special care of you and your baby's health while you are pregnant by following these steps:

1. Eat a healthy nutritious diet.
2. Continue to take prenatal vitamins.
3. Get plenty of rest.
4. Attend childbirth classes if available (at the hospital where you plan to have your baby).
5. Take your temperature daily and report any fever higher than 101°F or 38.3° C.
6. Use a soft toothbrush to clean your mouth.
7. Drink lots of fluids (at least 8 eight-ounce glasses of water or juice daily)
8. Continue to see your oncologist and obstetrician as scheduled.

## **Side Effects from Cancer Treatment**

You may experience fatigue (tiredness) between treatments. You may also have some nausea, vomiting, bowel changes, or mouth sores. If you have problems with eating or maintaining your weight during treatment, ask your doctor, nurse, or dietitian for advice. They can help you find ways to manage side effects from your treatment. If you have any unusual or severe problems, be sure to report them to your doctor or nurse. Be sure to notify your doctor if you have labor contractions, vaginal bleeding (or bleeding elsewhere such as the nose, mouth or rectum), or if your bag of water breaks.

## **Emotional Issues in Coping with Pregnancy and Cancer**

Coping with a diagnosis of cancer is traumatic and stressful. Even the strongest woman may feel overwhelmed at such a time. It is normal to cry and feel grief or to feel emotionally “numbed”. It will help to talk about your feelings with someone you trust, such as a family member, friend, clergy person, or a counselor. Many cancer centers have social workers, psychologists, or other professionals who can help. Receiving cancer treatment interferes with the multiple roles many women have, including working outside the home, mothering small children, having a committed relationship, and sometimes taking care of elderly parents. This is a time, however, when you need to take good care of yourself, and to accept love and support from your family and friends.

If you are asked to make a choice about whether or not to continue your pregnancy, you may feel conflict or guilt at being asked to weigh the welfare of your unborn child against your own health or the well-being of children you may already have. Women who miscarry or terminate a pregnancy due to urgent cancer treatment often have little time or energy to grieve. It may help to talk to a member of the clergy or counselor about your feelings, or even to hold a special ceremony. For example, having a religious service, writing a poem, or planting a tree in memory of the lost pregnancy. Some women also are faced with the possibility that cancer treatment will interfere with their ability to have children in the future, but new possibilities are emerging every day. You may discuss any questions you have about future fertility with your doctor. You may have little control, except to do your best to get through each day.

If you are able to have cancer treatment during an ongoing pregnancy, you may have concerns about the health of your unborn child, even if your doctors try to reassure you. Again, these feelings are very normal. Sometimes the joy of anticipating a baby can help a woman cope with the unpleasant side effects of cancer treatment, but it may also be difficult to plan for a new baby if you are worried about your future. Talk to your doctors about any concerns you have. It may also be helpful to talk to a counselor or with a woman who has been in a similar situation. There are organizations that provide information and support. (Please see the *Resources* section for more information.)

## **Frequently Asked Questions**

### **Does ending the pregnancy increase a woman’s chances of surviving cancer?**

In many cancers, continuing the pregnancy will have little, if any, effect on cancer survival but it may depend on the type and stage of cancer.

### **Will the chemotherapy hurt the baby?**

Most chemotherapy can be given safely during pregnancy, especially after the baby’s major organs have formed (after 8 weeks or two months of pregnancy).

### **What are the side effects of chemotherapy?**

Different people have different reactions to chemotherapy. Chemotherapy affects all rapidly growing cells in the body. Areas most often affected are the digestive tract, bone marrow, skin, and hair. Most side effects are temporary and can be managed with other medications and care measures. Common side effects from chemotherapy include: fatigue, nausea and vomiting, pain, hair loss, and anemia.

**Can I pass cancer to my baby?**

Although some cancers very rarely spread (metastasize) to the placenta, the vast majority of cancers do not spread to the baby. There are rare cases where malignant melanoma can spread to the placenta and baby.

**Can I take pain medication?**

Yes, you can take pain medication during pregnancy under the direction of your doctor and will not harm your baby.

**When can they do the mastectomy?**

In general the best time to have surgery is after the first trimester (13 weeks or three months) of pregnancy, although indicated surgery can be done when necessary regardless of how far pregnant you are.

**Can I have x-rays during pregnancy?**

Yes, you can have x-rays if necessary. Other imaging tests are available, such as MRI or ultrasound and are safe to use during pregnancy. Your doctors will discuss which imaging tests are necessary and should be done.

**Will I be able to breast-feed?**

In general, women who are being treated for cancer are usually instructed not to breast-feed because chemotherapy drugs can build up in breast milk and potentially could affect your infant. Additionally, radioactive iodine used to treat thyroid cancer can also cross into breast milk and harm the infant.

**How often will I need to see my oncologist?**

It will depend on what type of cancer, treatment plan and your doctors.

**How often will I need to see my obstetrician?**

It will depend on gestational age, your risk and potential complications of the pregnancy and your doctors.

**MD Anderson's Policy for Treating Pregnant Patients**

MD Anderson cancer Center has created a policy for the care of patients that are pregnant and come to our institution for cancer treatment.

**Purpose**

The purpose of the policy is to provide optimum care, to ensure that all issues are addressed and all reasonable options are discussed with the pregnant cancer patient and her family.

**Specific recommendations**

MD Anderson Cancer center has specific recommendations for pregnant patients when they come for their cancer treatment. Because MD Anderson's Department of Gynecologic Oncology does not provide obstetrical consultations, the Maternal Fetal Medicine Department at the University of

Texas Health Science Center has agreed to provide consultations and care to pregnant cancer patients at MD Anderson. Currently, these doctors are the only obstetricians that have consultation privileges at MD Anderson. Guidelines have been developed to help facilitate the care of pregnant patients and will be discussed with each patient on an individual basis.

## **Resources**

### **American Cancer Society**

The American Cancer Society (ACS) is a voluntary national health organization with local offices around the country. The ACS supports research, provides information about cancer, and offers many programs and services to patients and their families.

800-ACS 2345 (1-800-227-2345)

[www.cancer.org](http://www.cancer.org)

### **Cancer Information Service**

The Cancer Information Service (CIS) is a program of the National Cancer Institute (NCI). People who call the CIS speak with highly trained and caring information specialists who can answer questions about cancer screening tests, risks, symptoms, how cancer is diagnosed, the latest treatments and support organizations.

800-4-CANCER (1-800-422-6237)

### **Fertile Hope**

Founded by cancer survivors, Fertile Hope provides a variety of educational materials about cancer and fertility. A scholarship program is also available to help make infertility treatment more affordable for cancer survivors.

888-994-HOPE (1-888-994-4673)

[www.fertilehope.org](http://www.fertilehope.org)

### **Pregnant with Cancer Network**

The Pregnant with Cancer Network provides information about pregnancy and cancer. The network also offers a peer support program that matches women diagnosed with cancer during pregnancy with women who have gone through the same experience.

800-743-4471 or 716-937-4488

[www.pregnantwithcancer.org](http://www.pregnantwithcancer.org)

If you have any questions or concerns about your care, please contact:

### **Gynecologic Oncology Center**

Monday through Friday, 8 a.m. to 5 p.m.

713-792-6810