



What to Know: ASCO's Guideline on Fertility Preservation *American Society of Clinical Oncology*

Key Points

- Certain types of cancer treatments can affect a person's fertility (ability to conceive a child or maintain a pregnancy).
- There are various options to help preserve fertility in men and women.
- Before treatment begins, talk with your doctor about the possible fertility related side effects of your treatment and the options that are available to you to preserve fertility.

To help doctors give their patients the best possible care, the American Society of Clinical Oncology (ASCO) asks its medical experts to develop recommendations for specific areas of cancer care. ASCO developed recommendations for fertility preservation for people with cancer. This guide for patients is based on ASCO's recommendations. As you read this guide, please keep in mind that every person treated for cancer is different. These recommendations are not meant to replace your judgment or that of your doctor. The final decisions you and your doctors make will be based on your individual circumstances.

Cancer Treatment and Fertility

Some types of cancer treatment can affect a person's fertility, the ability to conceive a child or maintain a pregnancy. Infertility may be temporary or permanent. Whether treatment causes infertility depends on the following:

- The type and dose of the drug and how it's given (by mouth, injection, or intravenously [through a vein])
- The dose of radiation given and the area being irradiated
- The type of cancer
- The patient's age and gender
- Whether a patient had fertility problems before cancer treatment

Fertility in a woman may be decreased even if regular menstrual periods continue during treatment or return after treatment. In addition, cancer treatment can cause premature menopause, which shortens the length of time a woman is fertile.

If you are concerned that your cancer treatment will affect your fertility, talk with your doctor. Not all cancer treatments harm fertility, but if the treatment you are receiving does include a risk of infertility, fertility preservation treatments are available. Your chances for maintaining your fertility are greatest if you discuss and think about your options as early as possible.

Options for Preserving Fertility Before Cancer Treatment

This guide focuses on fertility preservation options that are available before cancer treatment. A patient's type of cancer and other personal preferences and circumstances may affect the available options. Many of these methods are investigational, which means that they are still being tested and may not be available to all patients.

For women

- Embryo cryopreservation: the harvesting of eggs followed by in vitro fertilization and freezing of embryos for later use
- Radical trachelectomy: surgery to remove the cervix that leaves the uterus intact
- Oophoropexy or ovarian transposition: surgically moving the ovaries out of the field of radiation
- Other organ-preserving surgery and radiation therapy
- Oocyte (egg) cryopreservation: the collection and freezing of unfertilized eggs (investigational)
- Ovarian tissue cryopreservation: the freezing of ovarian tissue for reimplantation after cancer treatment (investigational)
- Ovarian suppression: the use of hormone therapy to protect ovarian tissue during chemotherapy or radiation therapy (investigational)

For men

- Sperm cryopreservation (sperm banking): the freezing and storing of sperm
- Hormonal gonadoprotection: the use of hormone therapy to protect testicular tissue during chemotherapy or radiation therapy (investigational)
- Testicular tissue cryopreservation and reimplantation: the removal, freezing, and storage of testicular tissue to be surgically reimplanted after cancer treatment (investigational)

What This Means for Patients

Making decisions about potential options for preserving fertility at the time of a cancer diagnosis can be difficult. It is important to keep the following in mind:

- When discussing cancer treatment with your doctor, it is important to determine if you are at risk for treatment-related fertility problems and whether you are concerned about preserving your fertility. Not all cancer treatments cause infertility.
- This discussion should take place as early as possible, as many of the available fertility preservation options require time to perform before cancer therapy begins. For example, some treatments for women depend on the phase of a woman's menstrual cycle and can only be started at monthly intervals.
- Although data so far are limited, most fertility preservation methods do not appear to increase the risk of recurrence (return of the cancer), even in cancers that are sensitive to hormones.
- Having a history of cancer, cancer treatment, or fertility preservation treatment does not appear to increase the risk of cancer or birth defects for future children. However, patients with a hereditary genetic syndrome and women whose children were exposed to chemotherapy while in the uterus (womb) may be at higher risk for developing cancer or birth defects. Talk with your doctor for more information.
- Talk with your doctor about referrals for counseling or other means of support if treatment-related infertility is a source of anxiety.

It is important to talk with your doctors about fertility preservation before beginning cancer treatment. Consider asking your oncologist these questions:

- Based on my age, health, cancer type, and cancer treatment, what are my risks of infertility?
- Is it appropriate for me to see a reproductive endocrinologist who has expertise in fertility preservation?
- For parents of children with cancer: will this cancer treatment affect my child's future fertility?

If there is a possibility that cancer treatment will affect your fertility, consider asking these questions of an oncologist and/or a reproductive endocrinologist:

- What are my options for preserving fertility?
- Will any of the fertility-preservation options affect how well the cancer treatment works?
- Will using one of these options require that I delay cancer treatment? If so, for how long?
- How will each option affect my health and the health of my future children?
- Will fertility treatments or becoming pregnant increase the risk that the cancer may return?
- What are the chances of a subsequent pregnancy with this fertility option?
- Am I eligible for a clinical trial?
- Where can I find support for coping with fertility issues?
- Where can I find more information about fertility preservation?

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