Preserving Your Fertility When You Have Cancer (Men)

If you are a man (or if you have male reproductive organs), cancer and cancer treatment could affect your ability to father children. Before you start treatment, talk with your doctor and cancer care team about how your treatment might affect your fertility.

There may be ways to improve your chances of fathering a child in the future.

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Fathering a child after cancer treatment

Cancer treatment can affect your fertility in several ways.

Some treatments remove or damage the organs your body needs to make and release sperm. Other treatments might lower hormone levels. Or in some cases, you might be able to make sperm, but that sperm will be damaged.

Some men* who go through cancer treatment don't lose their fertility at all. Some men become infertile during treatment but regain their fertility afterward. These men will likely be able to father children through sexual intercourse. But some men lose their fertility and never regain it.

You might be able to take steps to help preserve your fertility. **Fertility preservation** saves or protects your sperm and other reproductive tissues so you can try to father children after treatment.

If you are interested in fertility preservation, you should talk with your cancer care team before your cancer treatment begins.

*Learn more about the gender terms used here and how to start the conversation with your cancer care team about your gender identity and sexual orientation in Gender Identity, Sexual Orientation, and Fertility.

Talking with your health care team about fertility preservation

You might need to start the conversation about fertility preservation. Don't assume your doctor or cancer care team will ask. They don't always remember to bring this up, so be prepared to bring it up yourself.

This is especially true if you are part of the LGBTQ+ community. Studies show that many doctors and nurses don't know the right questions to ask.

You can learn more about how to start this conversation in How Cancer and Cancer Treatment Can Affect Fertility in Men.

Having sex during and after treatment

It's also very important to talk to your cancer care team about having sex, both during and after any cancer treatment. Many cancer treatments can damage sperm cells, which can cause birth defects and other pregnancy complications.

If you are getting chemotherapy or other anti-cancer medicines, having unprotected sex might also expose your partner to these hazardous medicines.

Your cancer care team may recommend waiting several months or longer before having unprotected sexual intercourse or trying to have a child by natural means. In the meantime, ask about the best birth control methods to use.

Boys who haven't gone through puberty

Boys who have not gone through puberty aren't producing sperm yet, so the fertility preservation options for adult men don't work for them. But there are different options. You can learn more in: Preserving Fertility in Children and Teens With Cancer.

Understanding your options

As you explore your options for fertility preservation, be sure you understand the risks and chances of success. Keep in mind that no method works 100% of the time.

Experts suggest that all members of the cancer care team should be involved in talking with men about their fertility. This might include medical oncologists, radiation oncologists, urologists, hematologists, pediatric oncologists, surgeons, nurses, social workers, navigators, and others.

Your cancer care team should talk to you about any possible fertility problems you might have because of treatment. This conversation should happen as early as possible, before treatment starts. These conversations should also consider your preferences, religious or personal beliefs, and the cost of available options.

You might want to get a second opinion. You can also ask for a referral to a fertility or reproductive specialist.

Sperm banking

Sperm banking is the main method of fertility preservation for men and boys after puberty. By storing your sperm, you have a better chance of being able to father a child after some cancer treatments. If you think you might want to father a baby later, ask about it now.

Your doctor can refer you to a reproductive urologist for sperm banking. Or, your cancer care team might be able to set it up. You also might be able to find a sperm bank with an online search.

How sperm banking works

If you choose sperm banking, you will provide one or more samples of your semen.

Once the sperm bank gets the sample, they test it to see how many sperm cells it has. (This is the sperm count.) They will also test it to see what percentage of the sperm are able to swim (called motility) and what percentage have a normal shape (called morphology). The sperm cells are then frozen and stored.

A sperm sample can be obtained in the following ways:

- **Masturbation.** Semen collection through masturbation is usually done in a private room at a sperm bank. Sometimes, you can collect the sperm at home and bring it into the lab or send it by overnight delivery.
- **Penile vibratory stimulation.** A vibrator is put on the tip of the penis and may cause an ejaculation in some men. This can be helpful if you have trouble collecting sperm through masturbation.
- **Electroejaculation.** Some men are not able to ejaculate through these other methods because of health conditions, stress, or anxiety. Electroejaculation may help produce a semen sample. If you have normal nerve function, you will need general anesthesia (medicine that puts you in a deep sleep) for this procedure.
- **From urine**. Some men with cancer have trouble with normal ejaculation. Instead, the semen might flow backward into the bladder (called **retrograde ejaculation**). In this case, fertility specialists can try to collect sperm from the urine.
- **Sperm extraction and aspiration**. There are a few ways to collect sperm from men who don't have it in their semen. This includes: percutaneous epididymal sperm aspiration (PESA), microsurgical epididymal sperm aspiration (MESA), testicular sperm extraction (TESE), and microsurgical TESE (micro-TESE). Some of these can be done in a doctor's office and some require anesthesia in a hospital or surgery center.

Limitations to sperm banking

Sperm banking isn't an option that works for everyone. Here are a few examples where it might not be possible:

- **Fast-growing cancers**: Some boys and men with fast-growing cancer like acute leukemia (AML or ALL) may be too ill to produce semen samples before starting cancer treatment. Also, cancer treatment may need to start quickly, so there

isn't a lot of time to collect sperm to bank. If you can manage it, having even one sperm sample banked could allow you to father a child in the future.

- **Infectious diseases:** Before you bank your sperm, you will be tested for infectious diseases. If you have an infectious disease like HIV (the virus that causes AIDS) or hepatitis, check with the sperm bank about any restrictions.
- **Costs:** Sperm testing and banking costs about $500-$1000. The average cost for storing sperm is about $200-$500 per year. Costs can vary greatly between sperm banks.

Some insurance plans cover at least some of the costs of sperm banking. Some sperm banks offer financing and payment plans for people with cancer. There are also groups, such as Livestrong , that help people with cancer access sperm banking services as a reduced cost.

Success rate when using frozen sperm

The success rates of infertility treatments using frozen sperm depend on the quality of the sperm after it's thawed, as well as the health and age of the woman who receives it.

In general, sperm collected before cancer treatment is just as likely to start a pregnancy as sperm from men without cancer. Sperm banking has resulted in many pregnancies. Once sperm is stored, it's usually good for decades.

Keeping in touch with your sperm bank

Stay in contact with the sperm bank so that yearly storage fees are paid and your address is updated. Some sperm banks will destroy and discard sperm samples if you lose contact with them.

Radiation shielding

Radiation treatment can cause infertility by damaging the cells in the testicles that make sperm. This damage can't be avoided if both your testicles need to be radiated.

But when the radiation is directed at other organs in your pelvis, the radiation beams can scatter and result in indirect damage to the testicles. Covering your testicles with a lead shield can sometimes help protect your fertility. This is called **gonadal shielding** or **gonadal preservation**.

If radiation is aimed at one testicle (as for some testicular cancers), the other testicle should be shielded if possible. Some boys with leukemia need radiation directly to both testicles to destroy cancer cells that are growing there. Shielding is usually not

possible in this situation.

Resources

- Livestrong Fertility : Provides financial assistance to people with cancer who want to preserve their embryos, eggs or sperm. Also offers a fertility clinic search tool.

Learn more

How Cancer and Cancer Treatment Can Affect Fertility in Men →

Some cancers and cancer treatments can cause changes in your body that affect your fertility. Learn how cancer and its treatment can affect fertility in men.

Fertility Assistance and Other Options for Becoming a Parent After Cancer →

Once your cancer treatment is over, you may be thinking about building your family. Learn about fertility assistance and becoming a parent after cancer.

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