



**ROCKY MOUNTAIN FERTILITY CENTER**  
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## **Causes of Infertility in Men**

Cancer treatment can cause temporary or permanent infertility in men. Men begin producing sperm cells at puberty and continue to be fertile the rest of their lives. To cause permanent infertility, a cancer treatment must eliminate all stem cells in the testicles that produce new, mature sperm cells. This can happen if both testicles are removed, if the testicles get a high dose of radiation, or if very high doses of alkylating chemotherapy drugs are given. Men with testicular cancer, who are typically young, are likely to be infertile before they are diagnosed with cancer, but about half recover good fertility despite having a testicle removed and undergoing chemotherapy.

## **Preserving Fertility in Men**

Fertility preservation is much easier, cheaper and more effective for most men than women. It simply involves collecting a sample of semen and freezing it. Sperm must be banked before any chemotherapy or pelvic radiation therapy begins in order to avoid storing sperm that has been exposed to chemotherapy agents. The sperm can be thawed later and used for intrauterine insemination or in vitro fertilization. Many young men diagnosed with cancer have poor sperm quality because of the illness, recent anesthesia or stress. Even if a man has only a few live sperm in his semen, they can be used for in vitro fertilization to provide a good chance of pregnancy. In this situation, when the sample is thawed, the healthiest sperm are captured and injected into the woman's harvested eggs using a robotic microscope in the laboratory.

Insurance generally does not cover the cost of the sperm banking, and storing one ejaculate for one year averages around \$300. Rocky Mountain Fertility Center in Colorado has special sperm storage plans for cancer patients in cooperation with Livestrong™. For men who no longer ejaculate semen but would like to bank sperm, a urologist may be able to collect sperm from the storage areas above the testicles (the epididymis) or even from tissue inside the testicles with outpatient surgery.

Men often have low sperm counts or motility (movement) at the time their cancer is diagnosed, but this may improve after treatment. Sperm quality may rise for several years following cancer treatment, depending on the drugs used, the doses and each person's individual recovery. Even though men may produce sperm, the number and motility may not be enough to conceive without some medical help. A semen analysis, in which a man's semen is examined under a microscope, can indicate whether a pregnancy is likely through intercourse, or what type of infertility treatment will be needed. Because each person's situation is different, it is important to talk to a fertility specialist and your oncologist before trying to start a pregnancy.

## **Here are some questions you may want to ask your oncologist or a fertility specialist:**

Is there anything that can be done before starting my cancer treatment to increase the likelihood that I will be able to have children in the future?

Should I be using condoms for birth control?

For how long will we need to prevent pregnancy during cancer treatment? Are condoms the best method for us?

My partner is pregnant. Is there any special reason to avoid sex during my cancer treatment?

Will my cancer treatment cause me to be infertile? Do you expect this to be temporary or permanent?

Now that my cancer treatment has ended, I would like to have children. Is it OK for us to try to become pregnant?