Cancer and Male Fertility

Can cancer or cancer treatment affect fertility?
Cancer and cancer treatments can sometimes cause infertility or affect the ability for a man to father children. There may be options to protect your ability to continue or start to build your family. Before you start cancer treatment, it is important to talk with your doctor about your desire to have children in the future.

Certain chemotherapy drugs, radiation treatment to specific areas and some types of surgery can cause infertility.

How does cancer treatment affect my fertility?
A man who is fertile has the ability to produce healthy sperm cells that can make a woman pregnant.

Cancer can cause a temporary or permanent decrease in your quality of semen. This decrease can change your:

- **Sperm count** (the number of sperm in a man’s semen)
- **Sperm motility** (the ability of the sperm to swim to the woman’s egg)
- **Sperm morphology** (the percent of sperm with normal shape)

Treatments That Cause Infertility

- **Testicular** – if both testicles (bilateral orchiectomy) are removed then infertility is permanent. Sperm banking will be needed if you want to father children in the future. Most testicular cancers only remove one testicle. A man may still be fertile with only one testicle, if it produces enough sperm.
- **Prostate, Bladder, Intestine or Spine** – these surgeries may cause damage to nerves that may cause a man to be unable to ejaculate or eject semen (the fluid that carries sperm) from the penis. These surgeries could make the semen go backwards into the bladder. This is called **retrograde ejaculation**.
• Another problem that can happen after these types of surgery is **dry orgasm**. Dry orgasm is when no semen comes out of a man’s penis, but the man has the feeling of orgasm pleasure.

**Chemotherapy** – this treatment can damage, reduce or stop sperm production, which can affect your ability to father a child. The dose and type of drug used for your treatment cause this side effect.

• Some of the chemotherapy drugs likely to cause infertility are: busulfan, cisplatin, cyclophosphamide, ifosfamide and nitrogen mustard.

• Men with stem cell or bone marrow transplant can also have temporary or permanent infertility.

**Radiation Therapy** – this treatment can cause a temporary or permanent damage to sperm production based upon the location and radiation dose. Radiation to the following areas can cause this side effect:

• Pelvic area – testicles
• Prostate
• Whole body – stem cell or bone marrow transplant
• Brain – hypothalamus/pituitary gland. Sperm production in the testicles is controlled by these parts of the brain. A man may not be able to make sperm if these parts are damaged.

For more information on Fertility for Men with Cancer, we encourage you to visit our video library at [http://cancer.osu.edu/patientedvideos](http://cancer.osu.edu/patientedvideos).