Having Hernia Repair? Men, Consider Your Fertility

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Background: Hernia repair (also called herniorrhaphy) for groin (inguinal) hernia is a common procedure performed by general surgeons with approximately 750,000 performed yearly in the US. Most routine groin hernia operations utilize synthetic (knitted polypropylene) mesh to patch the opening in the groin that allows the hernia to occur since there are low infection and recurrence rates. The issue is that the spermatic cord, which carries blood supply and vas deferens (the tube carrying sperm from the testicle) is located near the location where the hernia repair is usually done. The spermatic cord is often placed on top of the mesh during the surgery. The mesh can cause scar tissue to form, providing a strong "wall" to prevent future hernias from occurring, but this can also cause blockage of the vas deferens and block sperm transport.

How it happens: Obstruction of the vas may result from injury during the hernia repair including vascular injury, or compression of the vas. During surgery, an opening in the mesh for the spermatic cord, or wrapping the vas deferens with a fat or muscle, to protect it from scar caused by the mesh, may help to preserve fertility in certain cases. Obstruction occurring following the hernia repair may remain unrecognized until a man has issues trying to have children.

What you can do: Prior to hernia repair, men of reproductive age should ask questions about possible risks of mesh-related inguinal obstruction following groin hernia surgery and issues with future fertility. Azoospermia (no sperm in ejaculate) can occur when hernia repairs are done on both sides of the groin or with one-sided repair when the other side has a testis with a preexisting fertility issue (obstruction or non-functioning).

For men at high risk who are having groin hernia surgery, sperm cryopreservation during hernia repair may be recommended. Cryopreservation of sperm and in vitro fertilization and intracytoplasmic sperm injection (ICSI) outcomes are similar to other causes of obstructive azoospermia. Men should let their doctor know if they may be interested in fertility in the future when having a groin hernia repair and discuss their options in detail.