



PATIENT & CAREGIVER EDUCATION

Fertility Preservation: Testicular Tissue Extraction in Pre-Pubertal Boys

This information describes testicular tissue extraction (removal) at Memorial Sloan Kettering (MSK).

Testicular tissue extraction is a fertility preservation option that involves taking testicular tissue and freezing it in order to try to form sperm from it later. Right now, it is being studied for boys who are starting cancer treatment that may affect their future fertility (ability to have biological children).

There are some important things that you need to know about your testicular tissue extraction:

- This procedure can only be performed at MSK during another procedure that requires anesthesia (medication to make you sleep).
- This procedure is experimental. Scientists are studying ways to form sperm from the tissue that is removed.
- This procedure is not covered by insurance.

Fertility and Cancer Treatment

Your child will be starting treatment that may damage his spermatogonial stem cells (SSCs). These are the cells in the body that grow into sperm. If your son's SSCs are damaged, he will not be able to produce sperm and will be infertile. This means that he will not be able to have biological children.

We cannot say for sure how or if your son's treatment will affect his future fertility. There are some treatments that are known to cause permanent damage to the sperm cells, which can lead to future infertility. Your son's doctor will review the risks and side effects of your son's treatment with you.

Sperm Banking

Sperm banking is a standard option to help improve a male's chance of having biological children after certain treatments. This involves freezing mature sperm.

However, before puberty, boys do not produce sperm, so sperm banking may not be an option for your son depending on his age and development. If your son is not able to produce sperm, testicular tissue extraction may be another option for him.

About Testicular Tissue Freezing

Testicular tissue extraction and freezing is a fertility preservation option that is used for adult males and is now being offered to pre-pubertal boys (boys who have not yet gone through puberty).

For testicular tissue extraction, your son will have a short surgery to remove a small piece of tissue from his testicles (testes). This can only be done at the same time that your son is having another procedure that requires anesthesia.

After the surgery, the tissue will be sent to a laboratory in New Jersey called The Sperm and Embryo Bank of New Jersey, where it will be frozen and stored.

Right now, there is no way to form mature sperm cells from the frozen testicular tissue. However, scientists are studying ways that frozen testicular tissue can be used to help pre-pubertal boys have biological children in the future.

Testicular Tissue Freezing Eligibility

Testicular tissue freezing is not an option for all boys. Whether it is an option for your son depends on the type of cancer or disease he has, his treatment plan, and if he is having anesthesia for another procedure.

For more information, speak with a member of your son's healthcare team. They will connect you with a reproductive urologist at MSK and your family will be scheduled for a consultation.

You must bring your son with you for the consultation, so that he can be examined by the reproductive urologist before coordinating this surgery.

This procedure is not covered by insurance. You will get a list

of possible costs during your consultation.

If you have any questions, contact a member of your healthcare team directly. If you're a patient at MSK and you need to reach a provider after 5:00 PM, during the weekend, or on a holiday, call 212-639-2000.

For more resources, visit www.mskcc.org/pe to search our virtual library.

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