PATIENT & CAREGIVER EDUCATION

Fertility Preservation: Testicular Tissue Extraction in Pre-Pubertal Boys

This information describes testicular tissue extraction (removal) in pre-pubertal boys (boys who haven't gone through puberty) at MSK.

Testicular tissue extraction is a fertility preservation option that involves taking testicular tissue and freezing it to try to make sperm from it later.

Right now, it's being studied for boys who are starting cancer treatment that may affect their future fertility (ability to have biological children).

Fertility and Cancer Treatment

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

We can't 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 sperm cells, which can lead to future infertility. Your son's healthcare provider will talk with you about the risks and side effects of his treatment.

Sperm Banking

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

Before puberty, boys don't make sperm. Sperm banking may not be an option for your son depending on his age and development. If your son isn't able to make 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's used for adult males and is now being offered to pre-pubertal boys.

For testicular tissue extraction, your son will have a short procedure to remove a small piece of tissue from his testicles (testes). At MSK, this is generally done during another procedure that requires anesthesia.

After the procedure, the tissue will be sent to a sperm bank, where it will be frozen and stored.

This procedure is experimental and so far, no babies have been born using this frozen tissue. Scientists are studying ways to grow sperm from the cells inside the tissue that is removed, but we don't know for sure if this will be possible.

Testicular Tissue Freezing Eligibility

Testicular tissue freezing isn't an option for everyone. Whether it's an option for your son depends on the type of cancer or disease he has and his treatment plan.. Your son will need to be examined before the procedure to make sure he's a candidate for the procedure. For more information, speak with a fertility nurse specialist at MSK.

Before the procedure, a representative from MSK's Patient Financial Services Department will talk with you about all possible fees for the procedure. They will also answer your questions about insurance coverage, financial assistance, and paying for the procedure. Financial support or assistance may be available to help you cover the cost.

If you have questions or concerns, contact your healthcare provider. A member of your care team will answer Monday through Friday from 9 a.m. to 5 p.m. Outside those hours, you can leave a message or talk with another MSK provider. There is always a doctor or nurse on call. If you're not sure how to reach your healthcare provider, call 212-639-2000.

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

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