DR. CHIRAG GUPTA | UROLOGY & ANDROLOGY

Microdissection Testicular Sperm Extraction (microTESE)

Patient guide | Sperm retrieval procedures

Use this guide to prepare questions for your urologist. Your individual plan may differ.

What it is

microTESE is a microsurgical procedure that uses an operating microscope to examine testicular tissue and select areas more likely to contain sperm.

When it may be considered

microTESE is used for selected cases of non-obstructive azoospermia, when sperm production may be very limited or patchy. AUA/ASRM guidance recommends microdissection TESE for men with non-obstructive azoospermia who undergo surgical sperm retrieval. The likelihood of finding sperm varies with the cause and individual findings; success cannot be guaranteed.

What happens

The procedure is usually performed in an operating room with anaesthesia. The surgeon opens the covering of the testicle and uses magnification to inspect the tissue, taking selected samples for laboratory examination. The microscope can help identify promising tubules while limiting the amount of tissue removed compared with non-microsurgical sampling. If sperm are found, the team discusses fresh use for ICSI or freezing when appropriate.

Preparing for the procedure

Your team may review prior semen tests, examination and hormone results, and genetic investigations when indicated. Discuss anaesthesia, fasting, medicines, transport home, whether retrieval will be coordinated with IVF, and what the plan will be if sperm are not found. Follow your written instructions.

Recovery and possible risks

Soreness, bruising and swelling can occur; recovery and activity limits depend on the operation. Risks include bleeding, infection, pain, failure to find sperm, further procedures, testicular injury and a possible drop in testosterone that may require follow-up. Your surgeon will explain wound care, support and when to seek help.

Questions to discuss

Why is microTESE recommended for me? What is known about retrieval chances for my diagnosis? How will testosterone be monitored? What are the alternatives and next steps if sperm are not found?

Sources for further reading

• Urology Care Foundation - Sperm Retrieval
• AUA/ASRM Guideline - Male Infertility, Part II

General educational information only; it is not a diagnosis or a substitute for advice from your treating clinician. Follow instructions specific to you.