



Guide to a MicroTESE Procedure

Introduction

MicroTESE (MICROsurgical TEsticular Sperm Extraction) is a procedure to retrieve sperm from the testes of men with very limited sperm production. These patients do not have sperm in the ejaculate. The decreased production may be due to previous chemotherapy or radiation, undescended testes, mumps or congenital problems of sperm production.

The procedure involves meticulous dissection through the testis using an operating microscope. It may be necessary to operate on both testes if insufficient sperm are obtained from one side. The sperm are generally used immediately (fresh) but if there are more sperm than is needed they can be frozen for future use. Sperm obtained must be used with IVF/ICSI, as there are not enough sperm to use with “routine” IVF. There is about a 50% chance of finding sperm with this procedure.

Risks

There are two specific risks associated MicroTESE:

- Damage to the blood supply to the testes, resulting in shrinkage or loss of the testis and;
- Damage to hormone producing cells in the testis, requiring hormone replacement treatment.

These risks are minimal.

Getting Started

Before we can book a MicroTESE procedure for you, there are a number of steps to take. The order of these steps may vary depending on your specific situation and at where you are in your fertility investigations.

- Sign Consents with your OFC Physician
- Meet with Urologist
- Complete all required blood work

Sign consents with your OFC physician

Your OFC physician will meet with you to review the treatment strategy and any adverse effects or risks of treatment. If you are planning to freeze your sperm after the procedure, you will also receive an Information Kit on Sperm Banking and you will sign the Consent for Sperm Banking, along with all the usual IVF consent forms.

Consent for MicroTESE surgery will be signed when you meet with Dr. Collins.

Meet with the urologist

As soon as your physician suspects that you might require a MicroTESE procedure, a consultation request will be sent to the urologist, who will be the one to perform the procedure at the Civic Hospital. The appointment with the urologist will be at the Ottawa Hospital (Civic Campus) and will be covered by OHIP for insured patients.

At this appointment, the urologist will review the MicroTESE procedure with you and discuss any risks or adverse effects of the procedure, and have you sign consents for surgery.

Complete all required blood work

If your physician has not already done so, he/she will arrange for you to take blood tests, which can be done at an outside lab such as Dynacare. Results are usually returned to your OFC physician within three (3) weeks.

If all results are normal (negative), your physician will forward your chart to an OFC nurse who will call you to coordinate a schedule for IVF/ MicroTESE procedure. If any of the results are abnormal, the secretary will call you to book a follow-up appointment to review test results and discuss options.

Scheduling Your Procedures

Once the preliminary steps are complete, a nurse will coordinate with the urologist to set a date for your procedure.

- Scheduling a MicroTESE procedure with freeze ahead of IVF: The surgery will be booked at the Ottawa Hospital Civic Campus as a day surgery with an OFC embryologist present to assess and transport the sperm to OFC for freezing. A nurse will book surgery on a day that both the lab and the urologist are available.
- Scheduling a MicroTESE procedure to coincide with an IVF cycle: Scheduling is more complicated in this instance and may take more time as a result. A nurse must time the egg retrieval on the same date that the urologist performs the surgery. The nurse will work with you and the urologist to ensure proper timing.

A Note about the Fees

When a date has been arranged for the MicroTESE procedure, a secretary will call you to collect the OFC lab fees. Hospital fees for the surgery (which include physician's fee, hospital stay and anaesthesiology) must be paid directly to the Ottawa Hospital, Civic Campus two weeks prior to your surgery.

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| □ MicroTESE (no freeze) | \$ 3,000 |
| Refund if no sperm frozen | \$ 500 |
| □ Surgical Fee (confirm with the urologist) | \$ 1,500 |

If you are combining your MicroTESE procedure with an IVF cycle, the secretary will collect fees for both procedures at the time of the Day 1 call to start an IVF treatment cycle.

Please note, there is no refund for a cancelled IVF cycle if no sperm is found. Please talk to your physician about your options, such as donor sperm back-up, to prevent the possibility of a cancelled cycle.

Preparing for the Procedure

1. Date for your MicroTESE procedure: _____
2. This procedure is done at the Ottawa Hospital, Civic Campus Surgical Daycare Unit, section D3. The day before your surgery, an SDCU nurse will call you between 1pm and 5pm to discuss your preoperative instructions and to advise you what time to come to the hospital. You are not admitted to the hospital, you will go home the same day.
3. You will be advised to stop any blood thinners before surgery (such as Coumadin, Plavix, aspirin or ASA). All other medications will be discussed with the SDCU nurse.
4. You should not eat or drink anything after midnight on the night prior to your surgery
5. The surgery is performed under general anesthetic therefore you must arrange for a ride home

The MicroTESE procedure

One incision is made on the scrotum. An incision is then made in one testicle. A very meticulous examination of the testicle is made using an operating microscope. Areas of sperm production are identified and carefully removed. The material is immediately examined for sperm in the operating room by embryologists from OFC. Multiple samples are usually required. If enough sperm are found, the other testicle is not examined.

The samples are then transported directly to the OFC.

The testicle is closed very carefully. Local anesthetic is placed around the testicle prior to closing the scrotum. A spray dressing is applied to the cut(s).

The operation takes 2-3 hours.

Recovering from a MicroTESE procedure

Patients are requested to rest in bed, and apply a bag of frozen peas to the scrotum, for 1-2 days while you are awake. An analgesic, such as Percocet, will be prescribed. Patients will be seen in follow-up by the urologist who performed the surgery approximately 1 month after surgery.

DO NOT bath or shower for 3 days after the procedure.

If you experience any problems, such as fever (greater than 38 degrees Celsius), redness at the incision site or pain that is not relieved by the pain medication, phone the Urology physician on call at (613)761-4500.