

Surgical sperm retrieval

Approximately 1% of all men will have no sperm in their ejaculate. After a number of tests and examinations, your doctor may suggest surgical sperm retrieval. Alternative options to this would be to consider using donor sperm.

What is surgical sperm retrieval (SSR)?

SSR is a technique for collecting sperm from a man's testicles. It is a minor procedure, usually carried out as a day case under local anaesthetic and sedation.

Who needs SSR?

SSR is intended to help men who have no sperm in their ejaculate. This can be the result of a number of causes:

- a blockage in the vas deferens (the tube which carries the sperm to the penis); an absent vas deferens;
- or a blockage in the epididymis (the structure connecting the testis to the vas deferens).

Most of these men produce healthy sperm in the testicles that can be retrieved by SSR.

Types of SSR

There are a few different types of SSR and the cause of the sperm problem will determine which procedure is most suitable for you.

- **Percutaneous epididymal sperm aspiration (PESA):** It is a short, relatively painless procedure and requires no surgical incisions. A fine needle is inserted into the epididymis through the scrotum and fluid aspirated. This fluid is then inspected under a microscope for sperm content and motility. The procedure takes about 15-20 minutes. This procedure will be performed under sedation.
- **Testicular sperm extraction (TESE):** TESE requires local anaesthetic and sedation. If no sperm is found in the epididymal fluid, a small incision is made into the testis itself. A small sample of testicular tissue is taken, which is examined for sperm. This procedure will cause some pain and tenderness; however, full recovery is expected within a few days.
- **Vasectomy reversal:** A vasectomy reversal is an operation to reconnect the tubes (called the vas deferens) that carry sperm from the testicles to your penis. This aims to restore fertility after a vasectomy.

What to expect afterwards

- There will be no stitches. The procedure takes about 20 minutes and the local anaesthetic will give pain relief for about 2-3 hours. The local anaesthetic affects both testicular cords and the scrotal skin.

- The side effects may be that of some testicular discomfort and mild bruising.
- The sedation will wear off quickly following the operation and someone will need to drive you home. The sedation is administered by a consultant anaesthetist.
- You will need to rest until the effects of the anaesthetic have passed. Your scrotum will feel sore as the anaesthetic wears off and you may need painkillers.
- You will be wearing supportive underwear to help relieve any discomfort and will normally be able to go home after you have passed urine.
- You will need to arrange for someone to drive you home. You should try to have a friend or relative stay with you for the first 24 hours.
- If you need pain relief, you can take over-the-counter painkillers such as paracetamol or ibuprofen. Follow the instructions in the patient information leaflet that comes with the medicine and ask your pharmacist for advice.
- Continue to wear close-fitting underwear day and night for a few weeks. This will help ease any discomfort and swelling.
- You can bathe and shower but you should dry the area gently and thoroughly afterwards.
- Don't do any heavy lifting or vigorous exercise for the first four weeks.
- You can have sex as soon as you feel comfortable.

What are the possible complications?

This is when problems occur during or after the operation. Most men are not affected. The possible complications of any operation include an unexpected reaction to the anaesthetic, excessive bleeding, or infection.

- Fluid building up in your scrotum (hydrocele) - this may need treatment to drain the area.
- Damage to blood vessels - this can cause permanent damage to one or both testicles (testicular atrophy).
- Long-term testicular pain - this is caused by pinched nerves or scarring and may need surgery.

Effectiveness of SSR

The sperm retrieved is frozen and this does not affect its ability to subsequently fertilise an egg. However the sperm retrieved is usually low in numbers, may not be mature therefore cannot successfully fertilise an egg using IVF techniques. Because of this, the embryologist will pick out a single sperm to inject into each egg, (this procedure is called Intracytoplasmic Sperm Injection or ICSI).

If you have any questions or concerns regarding your treatment please call the Fertility Clinic on **0118 322 7286** and ask to talk to one of the nurses.

Where can I find further information?

The clinic doctors produce a number of information sheets especially for this clinic and update them frequently. You can find some of these sheets on the Trust website leaflet catalogue <https://www.royalberkshire.nhs.uk/leaflets-catalogue/> by typing in the leaflet name.

To find out more about our Trust visit www.royalberkshire.nhs.uk

Please ask if you need this information in another language or format.

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