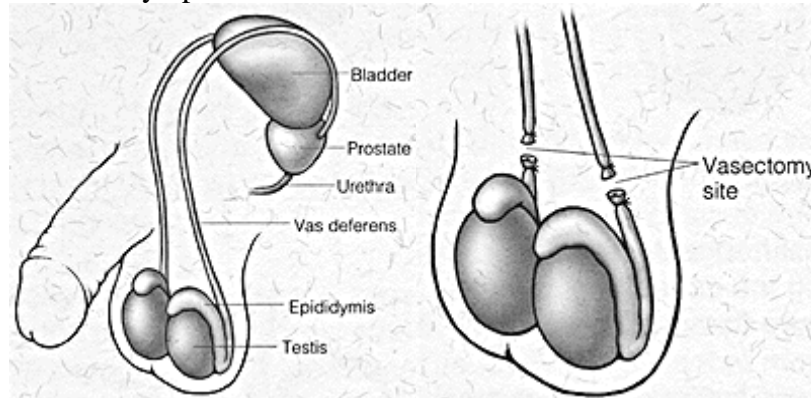


Information about the surgical extraction of sperm

Infertility will occur when there are no sperm in the semen. In over half of such cases the sperm production in the testis is normal but there is a blockage, which prevents sperm from entering the semen (obstructive azoospermia). This may be due to a variety of reasons:

1. Failure of the sperm passages to develop (Congenital absence of the vas – this is something that a person is born with, and can sometimes be associated with a condition called Cystic Fibrosis)
2. A blockage of the sperm transport tubules (rete, epididymis or vas) This may be caused by a variety of reasons – such as previous surgery in the genital region eg. hernia surgery, surgery for undescended testis etc, or by trauma, inflammation or tumours.
3. A previous vasectomy operation.



Although many vasectomies and sperm blockages may be corrected by surgery this is not always successful. At present we have no certain method of reconstructive surgery to offer men with congenital absence of the vas deferens.

In other cases there is failure of adequate sperm production by the testes, either a congenital problem or the result of previous disease or chemotherapy and/or irradiation. Even in these patients biopsy of the testis reveals that many men have areas where there are normal sperm that are just not passing into the semen even though there is no blockage.

ICSI – intracytoplasmic sperm injection

This is a highly advanced form of IVF (in vitro fertilization) where fertilization is achieved after injecting a single sperm into each suitable egg (which is retrieved from the female partner) With this technology we are able to achieve fertilization using only a few sperm obtained from men who would be otherwise unable to have children. Sperm are retrieved using a minimally invasive procedure done under local or general anaesthetic.

PESA – percutaneous Epididymal sperm aspiration

A fine needle is inserted into the epididymis, at the upper area of the testis. The sperm are aspirated by gentle suction.

TESA – Testicular sperm aspiration

A fine needle is inserted in to the testis and samples of tissue are obtained by gentle suction. If too few sperm are obtained, then a biopsy may need to be done. If a biopsy is done, a small incision is made in the scrotal skin, and 2 to 3 sutures are used to close the skin.

After treatment

There will be some bruising and tenderness of the scrotum for 24 – 48 hours after a PESA or TESE. When a skin opening is needed the stitches will self-dissolve in a couple of weeks. Healing may be aided by taking twice daily 5 minute baths with small amounts of added salt or disinfectant (e.g. Savlon) We would also advise that if you have a small incision you put a little Polysporin ointment over the area twice daily. All surgical procedures carry a small risk of bleeding or infection, but in practice most patients are back to full activity within a couple of days.

In most cases the sperm retrieved will be sorted and frozen in special vials. One of these vials will be later sacrificed to determine what kind of thaw result to expect. These vials will then be available for use when the female goes through IVF (to retrieve her eggs.)

The female partner

She will need to go through a process of superovulation (see information on IVF) in order to harvest and retrieve her eggs.

Cystic fibrosis testing in Congenital absence of the Vas Deferens

66 % of men with this problem carry a recessive gene of Cystic Fibrosis - a congenital illness leading to severe respiratory problems in infants. For this reason in such cases we test both the husband and wife for CF – which can be detected in the blood. If the husband is a carrier of CF and his female partner is negative, then the risk of their baby having CF is about 1/300, whereas in the general population the risk is about 1/600. We can arrange specialist genetic consultation for you to discuss these issues.