



Male factor sub-fertility

Having persistent low sperm counts (oligospermia) is very common and having no sperm in the ejaculate (azoospermia) affects approximately 1% of all men. There are many reasons why a man might have either very low counts or no sperm at all. This leaflet explains the steps we may take to investigate the cause of infertility and possible steps to overcome the problem.

What is infertility/subfertility?

Infertility is defined as failure to achieve a pregnancy after 12-months of regular unprotected sexual intercourse. One possible cause is low levels of sperm or abnormal sperm. Men are usually referred to the Male Fertility Clinic when tests show there is no sperm present (azoospermia) or when two sperm tests three months apart show abnormalities.

The four terms commonly used to describe sperm abnormalities are:

- 'azoospermia' (the absence of sperm in the ejaculate)
- 'oligozoospermia' (a low sperm count usually below 15 million sperm per millilitre of semen)
- 'asthenozoospermia' (reduced sperm motility)
- 'teratozoospermia' (reduced number of normal looking sperm).

In some patients, the underlying cause may be genetic (i.e. a fault in the genes, inherited from your parents). It is possible to pass a genetic abnormality onto any male offspring. A member of the fertility team may recommend you have further blood tests including hormone and genetic screening. If a genetic blood test is abnormal then a referral to a genetics specialist will be organised.

New techniques like Intracytoplasmic Sperm Injection (ICSI) and Microsurgical Testicular Sperm Extraction (mTESE) can help a couple achieve a pregnancy despite a very low count or azoospermia. Alternative treatment options would be to consider using donor sperm. If the sperm is very low or absent, the following blood tests may be recommended:

Cystic Fibrosis screening

The vas deferens carry sperm form the testes. 5-10% of azoospermic men, have a congenital absence of the vas deferens (CBAVD) from birth. This condition is associated with certain types of cystic fibrosis (CF).

There can also be abnormal variations of the CF gene in men with very low sperm counts. Approximately one in twenty Caucasians carry one abnormal CF gene. If you are a carrier of the abnormal gene, this does not mean you have CF but we would then want to test your partner to see if she were also a carrier. If both partners are carriers, the risk of passing on CF to your offspring is higher and further information will be given by the fertility specialist.

Karyotyping (checking the chromosomes or genetics)

Chromosomes carry the genetic information that is inherited from our parents. Sperm problems may arise because a man may be born with either an abnormal number or arrangement of chromosomes. This would be investigated in the Male Fertility Clinic.

How do I get referred to the Male Fertility Clinic?

Your GP will refer you to the clinic if indicated following review of your semen analysis results.

What happens in the clinic?

You can expect to discuss your clinical history and the doctor will examine you. You are also likely to have some tests, including a check of hormone levels, a genetic test and imaging such as ultrasound scan, depending on the suspected cause of your abnormal sperm parameters. These are all done to determine the cause of the problem and whether a surgical sperm retrieval can help you.

What is surgical sperm retrieval?

Surgical sperm retrieval is the collection of sperm for fertilisation from the epididymis or testicles for use in assisted conception for couples where the male partner suffers from a sperm abnormality. The retrieved sperm is used immediately for fertilisation or stored for future fertility treatment.

At the Royal Berkshire Hospital there are several surgical sperm retrieval methods available:

- Testicular Sperm Aspiration (TESA)
- Percutaneous Epididymal Sperm Aspiration (PESA)
- Microsurgical Testicular Sperm Extraction (M-TESE)

Visit <u>https://www.baus.org.uk/_userfiles/pages/files/Patients/Leaflets/Sperm%20retrieval.pdf</u> for further details on what these methods entail.

If you have any further questions, please discuss these with the Fertility Clinic on **0118 322 7286**. Further information leaflets are available on In Vitro Fertilisation (IVF), ICSI and surgical sperm retrieval. You can find these leaflets on the Trust website <u>here</u> or via the links below:

- https://www.royalberkshire.nhs.uk/leaflets/in-vitro-fertilisation-ivf
- <u>https://www.royalberkshire.nhs.uk/leaflets/intra-cytoplasmic-sperm-injections-icsi</u>
- <u>https://www.royalberkshire.nhs.uk/leaflets/surgical-sperm-retrieval-ssr</u>

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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