

Male Infertility

Around 10% of couples wishing to have children will find that, after a year's trying, they will have failed to become pregnant and therefore may seek infertility treatment. It is estimated that about one-third of them will have a male problem related to the number or quality of the sperm produced by the male partner. For natural pregnancy to occur a threshold number, around 10 million, of sperm must be deposited in the vagina at intercourse. These sperm must then have sufficient motility (swimming ability) and be of normal enough shape, to penetrate the cervical mucus, travel up through the uterus and fallopian tubes, and penetrate and fertilise an egg.

The Signs of Male Infertility

Although no test is absolute, a semen analysis performed by a pathology laboratory or a fertility clinic can give a good indication as to whether there is a problem with the semen. The laboratory will provide you with instructions on specimen collection so that maximum information can be derived from the test. A semen analysis is usually one of the first tests done when investigating an infertile couple.

Parameters measured in which abnormalities are significant include:

- Low Sperm Count (*Oligospermia*)- men with counts less than 20 million/ml may be contributing to the infertility.
- No Sperm in the Semen (*Azoospermia*) - either due to an obstruction or due to failure of the testes to produce sperm.
- Poor Sperm Motility (*Asthenospermia*) - The sperm do not swim in a good forward progressive manner and therefore lack the ability to make their way to the egg and then fertilise it.
- Poor Sperm Morphology (*Teratospermia*) - The shape of most of the sperm is abnormal, a factor we know to be associated with inability to penetrate and fertilise an egg.
- Sperm Antibodies - in a small number of males the immune system produces antibodies against the sperm themselves. Sperm coated with antibodies have difficulty penetrating cervical mucus and eggs.

It is not unusual for several of these abnormalities to occur together.

Because semen varies from day to day, it may be considered necessary to perform several semen analyses.

If any abnormalities are detected, blood tests of male reproductive hormones may be done to assist the diagnosis.

Treatments

There are not many treatments that will improve the quality of the sperm themselves. There are however a number of treatments available to the couple to help make the best of the sperm quality as it is and achieve a pregnancy. While in the past many had to resort to donated sperm, today we can literally produce a pregnancy from a single sperm so the modern reproductive technologies have been a great saviour for male infertility patients.

Reversible Conditions

Poor semen analysis results can be caused by failure to follow correct specimen collection instructions, recent illness, recent drug treatments, heavy alcohol consumption, obesity and frequent hot baths or saunas. You should tell your doctor if any of these are involved.

Drug Treatment

Few simple drug treatments will increase sperm numbers or make sperm swim or look better. Some men however produce low sperm numbers due to low reproductive hormone (*gonadotrophin*) levels. Gonadotrophin treatment can help them to produce more sperm in each ejaculate.

Artificial Insemination with Husband Semen (AIH)

Where the semen abnormalities are not too severe the relatively simple procedure of washing and concentrating the male partner's sperm and inseminating them directly into the uterus of the female is a good place to start. As we can never totally exclude the ability of sperm, however poor they may apparently be, to produce a pregnancy this is often the first treatment tried where male infertility is involved.

In Vitro Fertilisation and Embryo Transfer (IVF-ET)

This is the original 'test-tube' technique which was quickly found to be of considerable help in cases of substandard semen quality. The semen is prepared to select the most strongly swimming sperm which are then placed with the eggs in a test-tube. This produces fertilisation in about 90% of male infertility cases with the remaining 10% yielding no fertilisation. IVF is often performed for male infertility as, in addition to being a treatment, it is a good diagnostic test of the ability of the sperm to fertilise eggs.

Assisted Fertilisation by Microinjection (ICSI)

The intra-cytoplasmic sperm injection (ICSI) of eggs has revolutionised the treatment of males with severe sperm abnormalities. Where in the past such men had only the options of adoption or the use of donor sperm, we can now inject a single sperm into each egg and achieve high fertilisation rates in the addition to the IVF-ET procedure. As long as the sperm are alive, there is no problem with the degree of severity of the abnormalities in their motility or morphology. Where there are no sperm in the ejaculate, sperm surgically retrieved from the epididymis (microepididymal sperm aspiration or MESA) or the testes themselves (testicular sperm aspiration or TESA) are quite useable in this procedure.

Donor Insemination (DI , previously known as AID)

For some couples confronted with severe male infertility the complexity or cost of the treatments listed above are not acceptable. They may elect to accept the simple option of the female being inseminated with donated semen. The semen comes from anonymous donors who are screened for genetic and infectious diseases. To accept donor semen can be a difficult decision and couples are encouraged to have a consultation with one of our counsellors to discuss all aspects, both present and future, of this treatment before proceeding with it.

Counselling

The diagnosis of infertility and the realisation that one partner or the other is the main contributor to the problem place great emotional strains on relationships. These are further aggravated by the intrusive and time-consuming nature of the treatments. Fertility Gold Coast has a team of nurse-counsellors who are available to you to explain the treatments and help you through the ups and downs of diagnosis and treatment. They are located in the Fertility Gold Coast Office , Suite 6, 1st Floor of Pindara Place, 13 Carrara Street, Benowa 4217 and may be contacted by telephone on (07)55648455. If your problems with aspects of the treatments are of greater magnitude you may wish to speak with one of the psychologists who work with Fertility Gold Coast. Appointments to see them may also be made through the Fertility Gold Coast Office.

More Information

Fertility Gold Coast Office (07) 55648455 has a full information sheets available on all of the treatments listed above.