MALE FERTILITY
CREATING THE GREAT SPERM!

SPERM

The spermatozoa's primary function is to fertilise oocytes (eggs) and thus achieve conception. Each sperm cell consists of a head, midpiece and tail. The head contains the genetic material normally 23 chromosomes. The midpiece is where metabolism takes place, and the tail is responsible of motility.

It takes 72-90 days for sperm cells to develop into mature sperm. So roughly three months.

SPERM ANALYSIS GUIDELINES

These vary according to sources but current WHO (World Health organisation guidelines) 1999 are:-

Volume	2.0 ml or more
Liquefaction time	Within 60 minutes
pH	7 to 8
Sperm concentration	20 million spermatozoa per millilitre or more
Total sperm number	40 million spermatozoa per ejaculate or more
Motility	50% or more motile (grades a* and b**) or 25% or more with progressive motility (grade a) within 60 minutes of ejaculation
Morphology	14% of sperm should show normal shape and form of head, midpiece and tailpiece.
Viability	50% or more live

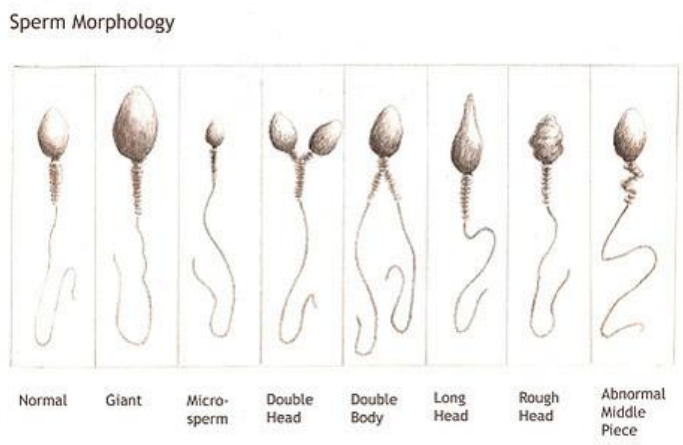
White blood cells fewer than 1 million per millilitre (more would indicate infection)

MAR/IBT tests: the mixed antiglobulin reaction test and the immunobead test check for the presence of antisperm antibodies; they should show at least 50% of sperm as normal.

* Grade a: rapid progressive motility (sperm moving swiftly, usually in a straight line).
** Grade b: slow or sluggish progressive motility (sperm may be less linear in their progression).

Definitions relating to semen quality

SPERM MORPHOLOGY



INFECTION

Infections involving *Chlamydia trachomatis*, *Mycoplasma genitalium* and *hominis*, *Ureaplasma uealyticum*, *E-Colii*, *Gonorrhoea*, *Syphillis*, *Mycobacterium tuberculosis*, *herpes simplex virus I and II*, and *Trichomonas vaginalis* have been shown to reduce sperm motility and also sperm function. The testing for and treatment of infection is recommended.

LIFE STYLE ADVICE

- Avoid excess heat, especially to the genital area
- Take suitable exercise - enable movement in the pelvic area. Not excessive exercise
- Avoid prolonged/extreme cycling
- Don't wear tight underwear / jeans
- Adopt a suitable diet and reduce any obesity, the diet should be balanced and full of whole foods, avoiding excessive soya, meat (although do not stop eating meat) dairy products, and sugars. Increase foods such as vegetables, green tea, food should be organic as possible.
- Eat Brazil nuts as they are rich in selenium, a mineral that seems to help boost sperm production and improve their swimming ability.
- Avoid drinking from plastic bottle, eating canned foods, and heating food and drink in plastic containers
- Stop smoking
- Avoid excessive use of alcohol and recreational drugs
- Minimise environmental pollution in the diet and in the home and workplace.
- Regular acupuncture and Chinese herbal medicine has be proven to improve male fertility (studies available on request)
- Can also take a male fertility supplement

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TERMINOLOGY

Normozoospermia
Normal ejaculate as defined by the WHO reference values

Oligozoospermia
Sperm concentration less than the WHO reference values

Asthenozoospermia
Less than the WHO reference values for motility

Teratozoospermia
Less than the WHO reference values for morphology

Oligoasthenoteratozoospermia
Signifies disturbance of all three variables (combinations of only two prefixes may also be used)

Azoospermia
No spermatozoa in the ejaculate

Aspermia
No ejaculate

Crypotozoospermia
Few spermatozoa recovered after centrifugation