

## Supplements

Male Multivitamins

As advised at consultation

## General Health

What is your general energy out of 10 for the last month or two? (8-9/10 is normal).

If low consider

- [Low endorphins](#)
  - Sleep disturbance
  - Low mood
  - Anxiety
  - Fatigue
  - AutoImmunity
- [Food Intolerance](#)
- [Adrenal Fatigue](#)
- [Wilson's Syndrome](#)

## Chronic low grade infection

### a) Antibiotics

Consider 4 weeks of ciprofloxacin 250 mg twice daily to treat a possible chronic low grade infection of testes, epididymis or prostate. Symptoms are not always obvious and treatment may be given empirically.

### b) PCR-DNA Testing for silent infection

Semen samples can be sent to a private lab to assess for [hidden chlamydia](#), mycoplasma and ureaplasma.

**Repeat semen analysis 10-12 weeks after intervention to assess effectiveness.**

## Scrotal Ultrasound

Refer to a specialised radiologist to assess for possible varicocele. If found consider embolization to correct it.

## Other treatments

- Tamoxifen 20mg daily
- Rectal Diclofenac 100mg nightly for 2 weeks each cycle from day 5 of wife's cycle
- [Maca](#)- Peruvian Herb

Although couples can achieve success with a significant suboptimal male factor, the percentage chance of success is better if we can improve semen parameters.

In our clinical experience we estimate 30-50% of couples will see an improvement in semen parameters with intervention, but at least 50% do not respond. If an intervention is not effective the treatment strategy is altered every 3 months until all of our treatment options have been tried.

## References

1. [WHO Guidelines](#) on Semen Parameters - Human Reproduction Update, Vol.16, No.3 pp. 231-245, 2010
2. [Sperm chromatin structure and male fertility](#)  
J. Erenpreiss et al. Asian J Androl 2006; 8 (1): 11-29



Dr Phil Boyle MICGP, MRCGP, MCRN 011986

## Male Factor Infertility And natural conception

**If conception has not occurred after 6- 12 months of regular intercourse during potentially fertile days, consider male factor as a possible cause.**

40% of couples attempting conception in our programme have a male factor which may be mild, moderate or severe.

Many couples with severe male factor infertility may still conceive naturally with appropriate medical intervention.

This brochure outlines our evaluation and treatment strategy.

### Obtain a semen sample

We provide couples with the [Male Factor Pak](#) so you can collect the sample through normal intercourse. You should abstain for 3 days to improve sperm concentration.

### WHO Guidelines New Criteria 2010<sup>1</sup>

- Volume >1.5 ml
- Count >15 million per ml
- Motility >40%
- Morphology = 4%

### Interpretation

The above values represent the lowest 5% of samples collected from a cohort of couples where conception occurred within 12 cycles of trying to conceive. An average sample should be higher than these values. In clinical practice conception can occur with samples lower than the above threshold. The lowest level acceptable for natural conception has not yet been determined. If a sample is sub-optimal this can be due to a recent flu, illness, period of stress or following heavy alcohol or caffeine consumption. It is wise to consider repeating a sample after 10-12 weeks following any intervention to see if there is an improvement. If the sample result is at or around these lower limits, interventions to optimise male factor are worth considering.

### 50<sup>th</sup> Centile values in normal fertility

- Volume = 3.7 ml
- Count = 73 million per ml
- Motility = 60%
- Morphology = 15%

### Lowest (treated) Values resulting in conception

- Volume = 0.5 ml
- Count = 0.1 million per ml
- Motility = 5%
- Morphology = 1%

### DNA Fragmentation Index

This is a new and expensive test to assess for DNA damage in sperm. It is not evaluated with routine testing and is not part of the WHO criteria to assess seminal fluid. It is too early and too expensive to recommend this test for every couple trying to conceive. The DNA result is impossible to predict from history or routine semen results. The only way you know if DNA fragmentation is an issue is if you test for it. It is reasonable to consider testing for this if conception does not occur after 6 effective cycles of Neo fertility treatment. DNA fragmentation occurs due to oxidative stress causing free radical damage to the sperm cells which are poorly protected because of sperm cell design with minimal cytoplasm. If you are older, a smoker, have a varicocele or chronic infection this will increase oxidative stress and the DNA fragmentation index. There are [several different kinds of DNA tests available](#) with different reference ranges of normal values.

Generally if the DNA fragmentation index is

- 15% or less natural conception is likely
- 15-25% Acceptable
- 25-50% Unsatisfactory
- >50% Natural conception is unlikely

### Anti-sperm Antibodies

<50% acceptable,  
>50% will adversely affect fertility  
It is reasonable to defer treating even those with 100% antibodies for 4 to 6 effective cycles as natural conception is possible. Thereafter consider Prednisolone 20mg twice daily for 10 nights and 5mg nightly for 2 nights, starting 9 days before expected peak day. Male needs chest x-ray before treatment and blood pressure monitoring during treatment. If side effects are unacceptable treatment should be discontinued.

### Blood tests - morning sample

FSH, LH, Testosterone, FBC, TSH, Vitamin D3  
Treat low gonadotropins with FSH and LH injections. Do not give testosterone - rather DHEA 25mg 3 times a day.

**Chromosomal testing** - This is possible but not routinely checked in our clinic.

### History

Undescended testes, testicular trauma or mumps in teens - sub-optimal samples in this group usually respond poorly to intervention.

### Lifestyle factors

For both the male and female we recommend

1. No Smoking
2. Alcohol - 7 units per week
3. Caffeine - 2-3 per week (Tea, coffee, cola)
4. Stress - control as far as possible
5. Exercise - too much or too little
6. Loose fitting cotton trousers
7. Weight reduction