

Male Factor Infertility & Semen Analysis

Fact Sheet

When discussing infertility the focus is often on female factors, however 40% of infertility is due to male factors alone. After a female's age, male factor infertility is the second most common reason a couple may experience difficulty conceiving.

How common is male infertility?

The vast majority of couples will fall pregnant naturally within the first 12 months of trying however for approximately 1 in 6 couples they will experience difficulties. Research tells us that of the couples struggling to fall pregnant, 40% will be due to problems with sperm function, so called male factor infertility.

What are some of the possible causes of male infertility?

Many factors can lead to a man becoming infertile. For a small minority there is a significant genetic issue causing poor sperm production such as breaks in chromosomes or parts of the male Y chromosome missing. For others there are hormonal causes, infections damaging the sperm outflow channels or problems with the testis such as testicular cancer or failure of the testis to descend into the scrotum early in life (cryptorchidism).

Several medications can also negatively impact on sperm production and quality, however for the vast majority of men no major cause is found. In these cases "lifestyle issues" such as obesity, stress, excessive consumption of alcohol, smoking or exposure to heat can all have an impact on a man's fertility. Some times when these lifestyle factors are removed, a man will regenerate healthy sperm after approximately 3 months.

Can heat affect a man's fertility?

The testis are located within the scrotum because it is at least 2 degrees cooler than core body temperature, since sperm production occurs best at these cooler conditions. Overheating a man's genital region can therefore have a negative impact on his fertility. Saunas, spas and hot baths or occupational exposure to heat (smelters) all result in heating of the testicles and can damage a man's fertility. When a man's body is too hot or cold it will aim to preserve his fertility by adjusting the position of his scrotum, however if his body is subjected to excessive and prolonged external heat then this natural cooling mechanism will not be sufficient.

Is male fertility impacted by age?

We know that male fertility slowly decreases with age, although not to the extent seen in women. On average men who are older than 50 take 5 times as long to make their young partners pregnant compared to men who are under 25 years of age. A man who is over the age of 50 will generally have lower semen volumes and the concentration and motility of his sperm will also be lower than that of a 25 year old male. And a man who is over the age of 80 will have a 50% chance of having poor sperm quality, so while men can father children in their later life, it certainly becomes more challenging to conceive a healthy child. Even more concerning is that there is now good evidence suggesting the DNA quality of sperm declines with age and this may explain why children conceived by older fathers have a higher risk of health problems such as Autism and Schizophrenia.



40% of infertility is due to male factors alone

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Will a man know if he is infertile?

Generally speaking, a man will only know he has fertility potential after he has had a semen analysis and that test has confirmed he has sperm present, unless he has had children previously. Being in peak physical condition and good health is not a guarantee of fertility.

How do you determine a man's fertility?

The most effective way to assess a man's fertility is via a Semen Analysis.

How is sperm DNA damage assessed?

A Halosperm Test determines the health of the DNA in sperm. Smoking, exposure to some chemicals, high temperatures, free radicals from normal metabolism, increased male BMI and advanced age can all cause damage to the DNA in cells including sperm cells. Increased levels of DNA damage can lead to reduction in fertilisation rates, poor embryo development and increased miscarriage rates. The Halosperm Test assesses any DNA damage in sperm. The test is performed in conjunction with a routine Semen Analysis and provides additional information as to the quality of the sperm.

Repromed's service

Repromed's Andrology Laboratories are some of the only facilities within South Australia and the Northern Territory with an automated Semen Analysis machine ensuring consistent, accurate and rapid turnaround of results. Repromed's fully NATA (National Association of Testing Authorities, Australia) accredited Andrology Laboratories are one of the main providers of semen testing for fertility assessment, post vasectomy checks, sperm DNA damage tests and cryopreservation of sperm (eg. prior to cancer treatment) across South Australia and the Northern Territory.

Requesting a Semen Analysis

All Semen Analysis tests with Repromed require an appointment and a valid pathology request form. To make an appointment, patients simply contact our South Australian clinic on 08 8333 8111 or our Darwin clinic on 08 8945 4211 to book their appointment time.

Reports

Repromed results are sent to the referring Doctor within 5 business days of the Semen Analysis appointment. If a test result is required earlier, Repromed can fax results.

Sample collection

Your patient must phone Repromed to book their collection and test appointment time. The sample will be produced on-site at Repromed's discreet and dedicated Andrology Department. For best results, patients should ideally ejaculate at least 2-3 days (but up to 7 days is acceptable) prior to their appointment and then abstain from ejaculating until their appointment. Patients are also able to produce samples off-site. These patients will still need to contact Repromed to book their appointment time and to arrange a semen collection pack.

A Semen Analysis* can give accurate information about:

Motility – how many sperm can swim

Morphology – shape of the sperm

Count – how many individual sperm in the sample

Vitality – how healthy the sperm are and their chance of survival

***A Semen Analysis requires a referral**

For more information or to make a referral:

South Australia

Dulwich

180 Fullarton Road,
Dulwich, SA 5065

T: 08 8333 8111

F: 08 8333 8188

E: enquiries@repromed.com.au

Also Consulting in:

Mawson Lakes, Morphett Vale, Mount Barker, Mount Gambier, Port Augusta and Port Lincoln.

Northern Territory

Darwin

Harry's Place Administration Building, 1 Willeroo Street,
Tiwi, NT 0810

T: 08 8945 4211

F: 08 8945 4255

E: darwin@repromed.com.au

Also Consulting in:

Alice Springs