

# Semen Collection and Analysis



## Concept Fertility Centre Information Sheet

Semen testing (or semen analysis) is the laboratory testing of freshly ejaculated semen that usually has been produced by masturbation. It is an essential part of the testing of the male partner. A semen analysis checks that sperm are present and helps identify if there is a problem with the number or quality of sperm being produced. Under a microscope, the number, shape and movement of sperm are measured.

Parameters checked during a semen analysis:

- Semen Volume
- Sperm Number (sperm count)
- Sperm Motility (movement)
- Sperm Morphology (shape)
- Semen pH
- Semen Consistency
- Semen Appearance

Other tests that can be done and might be requested by your doctor include:

- Antisperm antibodies
- Sperm DNA fragmentation
- Semen Microculture

The analysis of a man's semen is easy, cheap, not too inconvenient and tells the doctor immediately the number of sperm present (total count), whether they move (their motility) and if so how well, and what they look like (their morphology). Other aspects of the examination include the volume and consistency of the ejaculate produced, whether an infection is present in the genital tract and if antisperm antibodies are suspected. When the results of this data, along with other pertinent information (such as the period of abstinence before the sample was collected, the time delay between collection and delivery to the laboratory, how it was collected, any spillage and even the "quality of collection"), an assessment of a man's potential for fertility can be given. Frequently, more than one analysis is required, since the testes are a very sensitive indicator of general health and, as sperm are produced over a ten-week period, many factors can effect their production. Apart from azoospermia (no sperm present) no single parameter of a semen analysis is indicative of fertility - it is the assessment of a combination of factors, including your background health, that enable an overall prognosis to be made. The following questions may need an answer when you deliver your sample for analysis.

The reasons appear below:

### *Time of collection?*

Changes in sperm can occur over time particularly after 60 minutes.



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### *Prior abstinence period?*

Can effect seminal volume and sperm numbers and quality.

### *Was the whole sample collected?*

Can reduce the sperm numbers and seminal volume if some is spilt.

### *Health in previous 3 months?*

Maturation of sperm takes 72 days so poor health during this time might be reflected in the sperm quality.

### *Medications?*

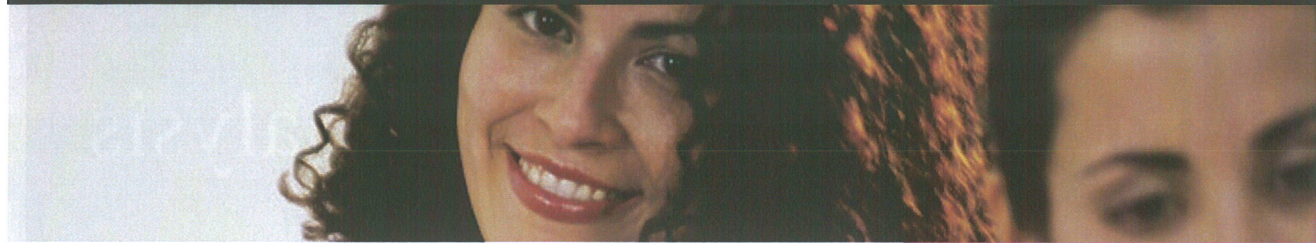
A range of medications can effect sperm quality.

### *Smoking?*

Smoking has been shown to damage sperm DNA which is linked to poor fertility.

You will be asked to complete a questionnaire that will provide valuable information that might assist with the interpretation of your semen analysis results.

Finally, the scientist assumes that what you deposit into the specimen container for semen analysis



represents what you deliver to your partner at intercourse when all the conditions should be perfect. Thus, it is important to have a "good" collection.

#### Semen analysis instructions

The laboratory is open for semen analysis from 8am to 2pm, Monday to Friday (except public holidays).

Contact Concept reception on 9382 2388 to make a booking for the collection rooms.

It is important to abstain from sexual relations for two to three days before doing the analysis.

Wash hands before collecting the sample. There are hand basins in the collection rooms.

The sample should be collected by masturbation into a sterile container supplied by Concept. Any form of contraceptive device such as a condom or coitus interruptus or any form of lubricant is not desirable for an optimal analysis and can affect the results of the analysis. It is possible for the partner to accompany the man if necessary.

After producing the sample place the label onto the specimen container and paper bag. It is important to be sure the correct details (name and date of birth) are on the label.

After collection of the sample complete the semen analysis questionnaire (6.8.15.1).

The specimen container and questionnaire are then placed into the collection hatch.

#### Collection at home

It is possible to collect the semen sample at home if it can't be done at Concept. To use this option collect a specimen container from Concept along with labels and a paper bag.

It is important that the sample arrives at Concept Fertility Centre, 218 Nicholson Rd, Subiaco within one hour of production. It is also important to avoid direct sunlight and extremes of temperature. Ideally the sample would be transported at room temperature and in the paper bag away from sunlight.

For couples with religious convictions special condoms which are not toxic to sperm can be purchased at Concept.

#### Normal Ranges

Measurements made as part of the semen analysis need to be compared with reference values to allow decisions to be made regarding possible treatment strategies. The WHO have published reference ranges for the semen values observed in 1400 men who had fathered children in a 12 month period.

Semen Volume	1.5ml
Total sperm number	>39 million /ml of semen
Total Motility	>40%
Progressive Motility	>32%
Sperm Morphology	>4%
pH	7.2

#### Nomenclature associated with semen quality:

Normozoospermic – all parameters above the reference range

Asthenozoospermic – total or progressive motility below reference values

Oligozoospermic – total sperm number below the reference value

Azoospermic – no sperm observed

Combinations of the above can also occur.

Should you require any further information please contact the Scientific Director at Concept.

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