

InfoSheet : SPERM FUNCTIONAL ASSESSMENT (SFA)

What is a Sperm Functional Assessment?

Every couple might have very different reasons for their infertility and these reasons can be as individual as they are. The male partner needs to be tested even if there has been a reason for infertility found in the female partner. Combined factor infertility has been found in 40% of couples. For the male partner, this testing usually involves some form of assessment of the semen. A routine semen analysis gives the doctor information about the number of sperm present, how many are moving and how many have a normal shape. This analysis does not provide any information about other factors that may be interfering with fertility or how the sperm in the sample will behave when prepared for infertility treatment (e.g. IUI, IVF or IVF with ICSI).

In order for fertilization to occur after intercourse, the sperm must first leave the vagina, travel through the cervix and the mucus located there. The sperm then enter the uterus and find their way to the fallopian tubes where they meet the ovulated egg. Many things may interfere with this process and cause infertility. The Sperm Functional Assessment is a series of tests that extend a basic semen analysis and provides the doctor with information which helps decide which treatments are not appropriate for you. Over the long term this benefits you by saving time and money being wasted on treatments that would probably not work.

What tests does the SFA include?

The male partner will need to produce a semen sample at the Victoria Fertility Centre. The laboratory can immediately place the sample under ideal storage conditions and also properly assess the sample's "liquefaction", which is a normal process the semen undergoes right after ejaculation. The overall Assessment comprises the following tests.

- **A comprehensive sample analysis**

The results will include: the volume and pH of the semen, the number of sperm, the number of sperm moving and the quality of their movement. It will also include information about the percentage of sperm with normal shape and information about the types of abnormal shapes present. The laboratory will also calculate the TZI (Teratozoospermia Index), which will tell the doctor the average number of defective parts that there are in each abnormal sperm. This Index will assist the doctor in determining which fertility treatments may not be beneficial. The sample will be also assessed for unusual amounts of debris (pieces of dead cells), suspected presence of bacteria, clumping of the sperm and for the presence of cells other than the sperm.

- **A screen for possible infection**

The semen sample will be screened for the presence of leucocytes (white blood cells) as well as the approximate concentration of these cells in the sample. This information will indicate to the doctor whether a possible infection may be present.

- **A screen for antisperm antibodies**

Men sometimes produce antibodies against their own sperm cells (there are a number of potential causes for the formation of these antibodies) which bind to the sperm. These antibodies can interfere with the movement of sperm through the female reproductive tract and/or interfere with the sperm's ability to fertilize the egg. The formation of antisperm antibodies cannot be stopped, but the results of this testing can provide the doctor with information about which treatments may be appropriate in order to bypass those stages of the sperm's journey where the antibodies can interfere with fertility.

- **A "Trial Wash" of the semen sample**

If sperm are going to be used for infertility treatment they must be "washed" in order to separate the best sperm from the semen.

While our standard washing procedure for the sperm works well for most men, it might not work well for some. Therefore a Trial Wash of your semen is required in order to make sure that the standard wash procedure can be used for you on the day of treatment. If the Trial Wash does not work well, the laboratory might be able to adjust it and wash the sperm differently. Some semen samples may also have very low sperm counts or very low motility. A Trial Wash therefore gives the laboratory valuable information as to how best to prepare your sample and also how many washed sperm they can expect to obtain on the day of treatment.

- **An assessment of sperm for IUI, IVF or ICSI**

The doctor will be provided with a summary of information from the laboratory about the semen sample and the quantity and quality of the sperm that it contains. The laboratory will also indicate whether or not the sample quality meets the minimum established requirements for use in IUI, IVF or ICSI. Please note that this will only be a recommendation; there might be other medical information that the laboratory is not aware of, and the ultimate decision about treatment is between your doctor, you and your partner.

What do the results mean and what will my doctor do with them?

Your doctor will review the Sperm Functional Assessment results along with any other previous investigations that you or your partner have had. The doctor will then be able to decide which type of infertility treatment is best suited to you. Whichever treatment is decided upon will not necessarily guarantee a pregnancy, but the Sperm Functional Assessment will be especially helpful to your doctor in deciding which treatments may or may not be suitable.

When will I know the results?

It takes a few days for all of the parts of the Sperm Functional Assessment to be completed. Your doctor will be sent the results and will then consider them along with all other test results and your medical history in order to plan your treatment options. Please allow three to six weeks for your Sperm Functional Assessment results to become available.

Will the laboratory tell me the results?

The results of the Sperm Functional Assessment must be interpreted along with other tests, your medical histories and other treatments you and your partner have had. The laboratory does not have all of this information and therefore cannot give a reliable, complete interpretation of your results.

What does the SFA cost?

The Sperm Functional Assessment is not a British Columbia MSP covered service. These tests are not available in regular pathology laboratories, only a few highly specialized laboratories located in specialist fertility centres across Canada. Please refer to the current VFC fee schedule for pricing.

How do I get an SFA done?

Sperm Functional Assessments can be booked at the reception desk of the Victoria Fertility Centre or you can call during office hours (9:00am to 12:00pm and 1:30pm to 4:30pm). You must book an appointment with the laboratory as only a certain number of Assessments can be done each day. If you must cancel, please provide at least 48 hours notice in order that we may offer the appointment to another patient anxiously awaiting treatment.

Please note that a 3-day period of sexual abstinence is necessary before providing a semen sample for the Sperm Functional Assessment. Shorter or longer periods than this may make interpretation of the results unreliable.