

## Sperm Washing

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If you are having difficulties becoming pregnant, you may have decided to try certain fertility treatments in order to increase your chances of conceiving. Intrauterine insemination (IUI) is often the first type of fertility treatment attempted by couples. In order to get sperm ready for the IUI procedure, it must first be washed. Sperm washing may sound strange, but it actually works to ensure that only the healthiest sperm are used during the procedure. Sperm washing can increase your chances of conception and may help you to welcome a new addition to your family.

### What is Sperm Washing?

Sperm washing is a procedure used to prepare sperm for use in IUI. It allows the sperm a better chance for survival and fertilization. Sperm washing separates sperm cells from the semen, helping to get rid of dead or slow-moving sperm as well as additional chemicals that may impair fertilization. Once sperm has been washed at The Kelowna Regional Fertility Centre's laboratory, it can be used during IUI to help achieve pregnancy.

### Why is Sperm Washing Necessary?

Sperm must be washed to use it for IUI. Raw semen cannot be inserted directly into a woman's uterus, because semen contains chemicals called prostaglandins. Prostaglandins cause muscular contractions and are responsible for cramps during menstruation and pregnancy. If raw semen is inserted directly into your uterus, rather than going through the cervix first, it could cause severe pain and cramping. Sperm is also washed in order to increase your chances of becoming pregnant. Sperm washing can remove dead sperm and those sperm with poor swimming ability. This leaves behind sperm that can swim faster and that are more likely to fertilize your egg. Sperm washing can also get rid of the white blood cells, mucous and seminal fluid surrounding the sperm, which can also interfere with fertility.

### Who Can Benefit From Sperm Washing?

Anyone who pursues IUI will receive the sperm washing procedure. However, the procedure can also benefit others, especially those with:

- unexplained infertility
- male-factor infertility
- women with endometriosis

### Preparing for the Sperm Wash

It is relatively easy to prepare for the sperm wash procedure. The semen will be collected in a cup after masturbation, or a sample can be taken during surgical sperm retrieval. It is important to refrain from sexual intercourse for two to five days before your sperm is collected. However, do not go more than five days without ejaculating. Certain antibiotics may also affect the quality of your sperm, so speak with your doctor if you are taking any medications.

## **Sperm Washing Procedures**

There are two commonly-used sperm washing techniques used at the Kelowna Regional Fertility Centre.

### **Simple Sperm Wash**

The simple sperm wash technique is the most basic way of washing and preparing sperm for IUI. Typically used for frozen donor sperm, the semen is diluted in a test tube with a special solution of antibiotics and protein supplements. It is then placed in a centrifuge, a machine that spins around at extremely high speeds. As the sperm mixture is spun, sperm cells fall to the bottom of the test tube, producing a mass of dense, highly active sperm. These sperm can then be removed from the test tube and used in IUI. A simple sperm wash takes about 20 to 40 minutes.

### **Density Gradient Sperm Wash**

The density gradient sperm wash is one of the most popular sperm washing methods and is the technique used for all fresh samples at The Kelowna Regional Fertility Centre. This is because it also works to separate dead sperm cells, white blood cells, and other waste products from the sperm.

A test tube is filled with two layers of liquids of different densities. Semen is then placed on the top layer of liquid and the test tube is spun in a centrifuge. After it is spun, active, healthy sperm will make their way to the very bottom layer of liquid in the test tube, while debris and dead sperm will get caught in the top two layers. These layers can be siphoned off in order to remove the active sperm from the test tube. This sperm is then used in the IUI procedure. Density gradient sperm washes take approximately 60 minutes.

### **Success Rates**

Success rates do increase when sperm washing is used with IUI. Because sperm washing ensures that only the most healthy and active sperm are used for fertilization, there is an increased chance that you will become pregnant when using washed sperm. However, success rates do depend on your partner's overall sperm count. Typically, the lowest sperm count to be used with sperm washing is one million, however, success rates are significantly lower if your sperm count falls beneath five to ten million. The best sperm counts for use with sperm washing are those between 20 and 30 million.

### **Cost of the Procedure**

Sperm washes are not covered by British Columbia MSP. Please see The Kelowna Regional Fertility Centre's fee schedule for current pricing.