

## Long Term Sperm Storage

### Introduction

Over the past 10 to 15 years technology has advanced so that now it is possible to store sperm at very low temperatures, in liquid nitrogen, almost indefinitely. The sperm are processed and stored in a special medium before freezing. There is some small loss of sperm quality on thawing but the sperm still remains functional and suitable for use.

### Why freeze sperm?

The freezing of sperm is very useful for patients undergoing any procedure that may impair fertility, be subject to physical danger or extensive travel, or if beginning to plan a family where physical separation from the female partner occurs for long periods. Occasionally we also may deduce that sperm quality may be about to decrease- for example commencing medications for treatment of arthritis, or cytotoxics for malignancy. Some will choose to store before vasectomy.

### How do I proceed with sperm freezing?

You will need the following:

1. An appointment with Dr. Thomas who will explain the procedure, outline the reasons for storing sperm and the possible results.
2. You will need to make an appointment with Healthscope Pathology who is currently providing sperm freezing services for Monash IVF.

*An extensive "Permission to Freeze Sperm" form will need to be completed.* The form covers the reason for storing sperm, and seeks your permission for the possible future uses that the sperm may be put to.

The sample must be produced at home or in the clinic and brought to the clinic within an hour. It is recommended that patients have three days abstinence prior to an appointment for freezing sperm.

### **How many samples do I have to store prior to treatment?**

We recommend a minimum of two samples ideally three to five. If the initial semen quality is not optimal we recommend as many samples as feasible prior to any procedure that may limit future collection. This is because there is some further reduction in sperm quality as a result of the freezing and thawing process.

### **What is the quality of the frozen sample?**

This varies between individuals. It is not unusual to see that sperm quality varies widely from sample to sample even in the same man. This may occur as a result of trivial viral infections, some medications, alcohol intake etc. A bad result does not mean that the semen result will be poor permanently in fact results can recover from being very poor to quite normal over a space of several months. It is likely that we will already have an estimate of your sperm quality, prior to proceeding with the freezing procedure.

Following semen freezing a small volume is usually thawed (a "trial thaw") to ascertain the impact of freezing the sperm. If the semen quality is reduced due to illness or other factors it may be necessary to undertake IVF procedures when pursuing a pregnancy including injection of a single sperm into an egg. This may also be undertaken if the quantity of sperm available is suboptimal.

### **Does the storage charge vary according to the number of samples stored?**

No. Standard charge remains the same regardless of the number of samples.

### **How can my frozen sample be used?**

If you decide to use your frozen sample in an attempt to achieve a pregnancy a range of treatments are available. The treatment recommended will be discussed with you by Dr. Thomas and depends on the number of motile (swimming) sperm available after thawing. Treatment options may vary from timed insemination (the sperm is introduced into the uterus at the time of ovulation) or IVF which stands for invitro fertilization. A single sperm is often injected into an egg to begin the fertilization process.

## What are the chances of achieving a pregnancy with my frozen sample?

This varies significantly between individuals and depends on the quality of the sperm and also, most importantly, with the age of the female partner. This is a very complex discussion and may take a while. If there are perceived abnormalities you will need to have at least one discussion with Dr. Thomas prior to proceeding.

## How long can my frozen semen be stored?

There is theoretically no limit to the length of time that sperm can be stored in a frozen state. Monash IVF or the laboratory will send reminders annually and invoice you for storage costs. In fact storage costs can be queried when booking your appointment with the laboratory. If you no longer wish to keep the sample stored the samples can be thawed and discarded.

## What tests are required before proceeding to a sperm freeze?

It is usual that Dr. Thomas will order various tests to exclude an underlying infection that may exist in your blood prior to freezing which may therefore be passed on to other patients or to a female partner upon using your sample. These tests include Hepatitis B, Hepatitis C and HIV. You will also need to have a preliminary semen analysis to get a feel for how appropriate semen freezing may be.

