

## **Sperm Freezing and Storage**

Ever since the birth of the first baby in 1953 following the use of frozen sperm, sperm cryopreservation has allowed many men whose fertility may become impaired, the potential opportunity to attempt to achieve a pregnancy .

### **Reasons for Freezing Sperm**

There are many situations where men may wish to take advantage of this facility You may decide to freeze your sperm as an insurance policy if you are considering vasectomy, or if you are undergoing medical treatment, or have an unrelated condition such as cancer, diabetes, or kidney disease that may affect your fertility, or simply for personal or social reasons

#### **Vasectomy**

If you are planning a vasectomy, it is a good idea to consider sperm banking as an insurance policy. If for any reason you may decide to reverse the vasectomy at a later date due to unforeseen circumstances, resumption of your fertility cannot always be guaranteed. Having frozen sperm may provide you with a viable alternative

#### **Primary testicular failure**

Patients diagnosed with this condition may start to see a rapid decline in their sperm count. There may come a time when you will not produce sperm any more. Under these circumstances, it may be advisable to store your sperm while you are still producing them.

#### **Unrelated clinical conditions**

Some patients may have unrelated conditions where either the condition or the medication for the treatment causes damage to the sperm. Diabetes, renal or liver disease and antihypertensives or antidepressants are just a few examples. Since these cause deterioration of sperm with time, you may wish to discuss with your Doctor freezing your sperm as soon as you are diagnosed or before you begin taking medication.

#### **Sperm and Age**

Although a normal healthy male is technically fertile for his entire life, as for women, a man's fertility declines with age particularly past the age of 40. In today's busy

environment, Men are also putting their families on hold and may wish to store their sperm while they are young and healthy. Indeed, there may be other personal or social reasons why a man may wish to store his sperm.

### **Sperm banking for donation**

Semen from healthy men can be frozen and stored for use in assisted reproduction techniques whenever requested. Our service is geared to storing sperm from donors who are known to the women requiring sperm donation, although men approaching the clinic to become sperm donors without a recipient in mind are also welcome to come through the programme. Donors are asked to complete a family medical history and must be screened for infections including several sexually transmitted diseases as well as genetic conditions. Please ask for more information if you are considering storing sperm for this reason.

### **Sperm banking for men with cancer**

The survival rates for young men suffering from various types of cancer have improved dramatically. However, chemotherapy and radiotherapy for treating cancer can have a serious detrimental affect on your fertility. It is impossible to predict who will have normal sperm development and who will be left sterile without any sperm after chemo- or radiotherapy. The majority of these patients are young men who have neither started nor completed their families. For these reasons patients are motivated to preserve their fertility by freezing their sperm before embarking on adjuvant therapy. If you have been diagnosed with cancer, you should try and freeze your semen as soon as possible to enable several samples to be banked before starting chemo- or radiotherapy, just in case you are made sterile as a result of your treatment.

### **Surgical Sperm Recovery**

When there is no sperm present in the semen, it is sometimes possible to recover sperm from the testes. If sperm is found it may be frozen for use at a later stage with ICSI treatment. Please ask for more information if you are choosing to have this procedure.

### **Back-up for Fertility Treatment (IUI, IVF or ICSI)**

- **Absence of male partner during fertility treatment**

If you cannot be present on the day of your partner's fertility treatment, your sperm can be frozen in advance and thawed on the required day

- **Ejaculatory problems**

If you and your partner are going through fertility treatment and you have problems ejaculating on demand, it is a good idea to store your sperm as a back-up. This considerably reduces the pressure for you to produce a sample on the day of egg collection or insemination – the make or break of treatment!

- **Variable Sperm Quality**

Sometimes, sperm may be frozen as a back-up for fertility treatment when sperm parameters vary from one sample to the next, particularly count and motility. Ideally, you may produce several samples and store one or two when the parameters are at their best.

### **How Long Can Sperm be Stored?**

Under HFEA regulations, sperm can be stored for an initial maximum period of 10 years and there must be fully informed written consents in place. In exceptional circumstances an extension may be applied for, but if the extension is allowed, the samples cannot be stored beyond a male patient's 55<sup>th</sup> birthday.

### **Infection Screening**

All men wishing to store sperm must have screening for HIV, Hepatitis B and C. This is because your sperm is to be stored with sperm from other men in the same container and by screening for these diseases, the risk of contamination in the storage vessel is minimised. Samples cannot be frozen without copies of these results. We can accept copies of test results carried out in the last three months or we can arrange for these to be done. In cases where sperm banking needs to be done urgently, for example for oncology patients, we can arrange for the blood tests to be done in the morning and an appointment to attend to freeze a sperm sample can be booked for later that day when the results are back.

### **Consent**

At the time of the first appointment to freeze a sample, consent forms need to be completed. Issues to be considered include who can use the sperm, how long storage is required for and, although a delicate issue, for legal reasons under guidance from the Human Fertilisation and Embryology Authority, we need to have clear and complete consent about what should be done with the samples in the event of death or mental capacity. These consents can be changed at any point, provided the sperm has not already been used, but this must be done in writing.

### **Producing the Semen Sample**

All sperm samples should be produced by masturbation on-site at Andrology Solutions. There are comfortable, private rooms allocated especially for this purpose and this ensures that the samples are received immediately by laboratory staff for processing. To ensure that the sperm sample is optimum it is necessary to have at least two but no more than five days abstinence.

### **Freezing and Thawing of Sperm**

The sperm samples are frozen by a member of the Andrology team by adding a cryoprotectant solution and placing the samples into liquid nitrogen in a two-stage freezing process. The freezing and thawing process does have a negative impact on the sperm samples, and after thawing there is usually a decline in the quality and motility of the sperm particularly if the sample is weak to start with. But even healthy looking sperm may not do well after freezing. Very occasionally, none of the sperm will survive the procedure. For this reason we offer an immediate test freeze thaw for all your samples, so that if there is any problem, we can let you know immediately. Furthermore, we recommend that ideally three separate sperm samples are frozen, with appointments several days apart.

### **Counselling**

The decision to freeze sperm may be a difficult issue at times, and sometimes poor sperm survival after freezing and thawing may be hard to reconcile. That is why we have a Counsellor that can help you discuss any concerns you may have. This service can be arranged at any point whilst samples are in storage at Andrology Solutions.

### **Ensuring the Safety of Your Samples**

All critical stages of the procedure are witnessed by a second member of staff so all details are checked by two people. The storage tanks are remote alarmed so that in the very rare case of a potential problem at any time, a member of staff will be alerted. As an extra precaution samples from one individual are usually stored between two tanks.

### **Maintaining Sperm in Storage**

These sperm samples can remain in storage under the care of Andrology Solutions at 55 Wimpole Street provided that there is valid consent in place, the storage period has not expired and that the annual storage fee payments are kept up to date. It is the responsibility of the patient to inform the centre if they have a change of address or circumstances. The centre will contact all patients who have samples in storage on an annual basis using the details on file but if payment for further storage is not received then the centre reserves the right to discard any samples in storage. If you prefer the samples to be moved to another clinic for storage or use, we can arrange for this to be done.

If you wish to book an appointment or have any further questions please contact us by phone on 020 7224 2322 or by e-mail at [info@andrologysolutions.co.uk](mailto:info@andrologysolutions.co.uk)