

Fertility preservation information for those starting oestrogen

Information for young people using oestrogen.

This information is for young people who are about to have puberty blockers and/or oestrogen which may affect their fertility. It aims to help you make decisions now which may preserve your chance of having children in the future. We hope that it answers all your questions, if not, please speak to your doctor/nurse.

What are the effects of my treatment?

Puberty blockers and/or oestrogen can affect your ability to have children. Although puberty blockers do not affect sperm production in the long term, use of oestrogen has been known to permanently stop sperm production which will cause infertility.

What are my options?

Before you start puberty blockers and/or oestrogen, some of your semen, containing sperm, can be frozen and stored at Fertility Plus, Greenlane Clinical Centre, until you wish to start a family. The storing of semen is fully funded to patients of Hauora Tāhine able to produce a semen sample themselves. You will need to produce your semen sample at the clinic where you will be storing your sperm.

Here are some tips for producing a semen sample:

- Tucking (pushing your testicles inside the body) may affect sperm production. New sperm produced take approximately 12 weeks to mature.
- Obtain self-collected sample of semen.
- Do Not use a condom or any form of lubricant – this can damage the sperm.
- Make sure you collect all of the semen – the first portion often contains most of the sperm.

At Fertility Plus you will be asked to bring your photo ID and to sign a consent form to allow the clinic to store your sperm. The clinic will thaw and check a small sample of your frozen sperm and they may ask you to repeat your sample if more sperm is needed. In New Zealand the law (the Human Assisted Reproductive Technology [HART] Act) allows for a ten year storage limit, although extended storage is possible.

It is very important to notify Fertility Plus with any change in address or phone number so that they will be able to contact you in the future to discuss your stored sperm. If Fertility Plus is unable to contact you then after ten years the law requires them to discard your sperm.

Does freezing damage the sperm?

The sperm are prepared for freezing by mixing them with a protective solution, putting them into tiny straws and then reducing the temperature gradually. They are stored in liquid nitrogen at -196°C . Some of the sperm are killed in the process of freezing, the results vary but usually 25% to 50% will survive. The use of sperm that has been frozen and thawed is not associated with any increased health risks to your child.

What happens when I want to start a family?

Different fertility methods are used depending on the quality of the semen after storage. You may qualify for funded treatment.

- **Intrauterine insemination (IUI)** – your semen is thawed and the sperm is placed into a person's uterus. This method can be used if there is plenty of semen containing large numbers of motile (moving) sperm but you may need to have stored multiple samples of sperm before this is possible (usually three or more).
- **In-vitro fertilisation (IVF)** – eggs are collected from ovaries and fertilised with your sperm in the laboratory, the embryo(s) are then placed in a person's uterus. Usually one sample of sperm will be enough for one IVF cycle but this will depend on your sperm concentration. The staff at Fertility Plus will discuss this with you and advise accordingly.
- **Intracytoplasmic sperm injection (ICSI)** – this is done as part of IVF and is used when there are only small numbers of sperm available. In this method a single sperm is injected into each egg in the laboratory. Usually one sample of sperm will be enough for several ICSI cycles.

What is a testicular biopsy?

Some young people may be unable to collect semen or there may be no sperm in the semen because of pubertal stage or other reasons. In this situation it may be possible to collect sperm from your testicles using a needle or a scrotal incision via a small procedure called testicular biopsy. Sperm collected from the testicle may be frozen and used later by intracytoplasmic sperm injection (ICSI).

This procedure is not offered routinely and is not funded.

What are my chances of having a child?

There is no guarantee of success. The chance of assisted reproduction being successful is dependent on many factors, including the person's age.

I've already started gender transition using medication, can anything be done?

If you have started puberty blockers or oestrogen and you do not have sperm stored, there are some options to improve your chances of having children in the future. If it is acceptable to you to stop the blockers you will start to produce sperm after a number of months. This sperm could be collected and stored before restarting the puberty blockers. It is not known how the use of oestrogen will impact on testicular tissue in the longer term.

Talking it over

You might not want to have children now but it is difficult for anyone to know how they will feel years ahead in the future. Take time to talk to your family and other support people about these options. Whether or not to freeze sperm is an important decision that you need to consider carefully.