

# Information Leaflet

## Sperm Banking for Young People

### Reproduction

Reproduction is the process where a baby is created. To make a baby, the sex cells (called gametes) of a male and a female must fuse together. The sex cells are the sperm and eggs. The sperm fertilises the egg, and an embryo develops to become a baby.


When a boy goes through puberty their reproductive system matures and the testes, found inside the scrotum, produce and store millions of tiny sperm and continue to do so throughout adulthood. These sperm cells travel from the testes through the system and mix with a white-ish fluid called semen, and this is what is released from the penis during ejaculation.

### Sperm Banking

Sperm banking is the process of freezing and storing some of your sperm. In the future, this stored sperm can be thawed and used in fertility treatment in the hopes of creating a baby. Your doctor has referred you to us as you are due to start treatment that may affect your ability to produce sperm (spermatogenesis). Your treatment might affect your sperm production temporarily or permanently, so it may be difficult to have a baby naturally. Storing sperm for this reason is called Fertility Preservation. Having sperm stored means you have more options when you are ready to try for a baby.

### Human Fertilisation and Embryology Authority (HFEA) – Regulatory Body

The HFEA monitor all treatment relating to fertility including sperm banking. You will be required to complete HFEA consent forms to allow us to store your sperm. The forms may seem overwhelming with a lot of information, but you will be guided through these and the Andrologist is there to help with any questions.

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## The Process

### Referral

- Your doctor sends our team a referral describing your diagnosis, treatment, and when they would like you to start this, so we know how much time we have for your appointments.

### Booking In

- A member of the Andrology team will contact you or your parent/guardian to discuss the process and to book your appointments.

### Consultation

- You will attend the Andrology laboratory.
- You will have a consultation with an Andrologist where you will sign consent forms relating to the storage and use of your sperm.

### Sample production

- You will need to produce a sample by masturbation • We have private rooms specifically made for sample production (you may be able to produce your sample at home, if you would prefer).

### Blood test

- If these tests have not been done already, you will be taken to our nursing team for a blood test. This is for storage purposes; we will store your samples with other samples with the same blood test result.

### Further samples

- Further appointments may be required to ensure we have a good number of samples stored for future use. We will discuss this with you when you attend.

### Summation letter


- After banking, you will be sent a letter summarising what you have in storage and what sort of treatment it can be used for in the future.

### Post-treatment

- At least 12 months after you have finished your treatment, you can contact the lab and book in for a semen analysis.
- You will then be booked in for a chat with one of our Doctors or Lead Scientists who will be able to talk with you about your post treatment fertility and your options for using your stored sperm

## Freezing

You will need to provide a semen sample by masturbation and collect your entire sample in a pot that will be provided to you. A basic semen analysis is performed to assess the number of sperm in your sample, their shape and size, and how well they are moving.

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A solution called cryoprotectant is added to your sample. This works to protect the sperm during the temperature changes of the freezing and thawing. Your sample is split into small thin straws (called cryostraws) labelled with your details and then sealed. The cryostraws are slowly cooled to -196 degrees Celsius by vapour of liquid nitrogen, and finally dunked into liquid nitrogen to complete the freeze process.

## Storage and use

These straws are then stored in large tanks that are filled with the liquid nitrogen vapour to keep them frozen for as long as you have consented to on your HFEA GS consent form. The temperature of these tanks is continuously monitored to ensure the safety of your samples.

When you are ready to use your stored sperm, there are several methods currently used. Your doctor will let you know which options you can use based on what we have stored:

- Your samples could be inseminated directly into your partner.
- Your partner's eggs could be collected and inseminated in a dish in the lab, this is called in vitro fertilisation (IVF).
- If there is a chance you may require surrogacy in the future (where a woman carries a baby for another person or couple), further screening will be required, and this can be discussed at your consultation.

## Common Questions

### Do I have to do this?


You do not have to decide to bank your sperm if you do not wish to, and we will support you in whatever decision you make. Although you may not be thinking about having children now, banking your sperm allows you the choice when you are older.

### Do I have to do this now?

It is important to freeze your sperm before any treatment starts, as this could significantly decrease your sperm production or damage the DNA within it.

### How long can I store my sperm?

The law allows you to store your sperm for up to 55 years, however you must renew your consent every 10 years, so it is really important that you keep us updated with changes to address or contact details by calling or email the Andrology laboratory team. You are also able to change or withdraw your consent to store at any time by contacting our team.

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### Where will I produce my sample?

We have private rooms in the hospital for you to produce your sample.

There is a possibility that you will be able to produce your sample at home, and this will be discussed further when we contact you to book in.

If you are an in-patient at your hospital and need to stay, a member of staff will be able to visit you at the hospital to take your consents and deliver your sample to our lab. Any further samples needed can be delivered to us by a family member.



Figure 1. Andrology Production Room (McAteer, 2023)

### How many samples do I need?

We aim to store enough samples for 10 treatment cycles, in accordance with the World Health Organisation (WHO). Depending on your initial sample quality and volume, you may only need to produce one sample, but you may require one or two more, we will let you know as the process goes on. This is just to ensure we have enough in storage for multiple treatment cycles, and optimise chances of a pregnancy, should you need to use this sperm in the future.

**Fertility preservation sperm banking is available to everyone regardless of sexuality or gender identity. Options for using your sperm may include using donated eggs or surrogacy and will be discussed with you at your follow up consultation.**

**If you are experiencing gender incongruence, please refer to the patient information leaflet 'Transgender & Non-Binary Fertility Preservation - Sperm Freezing' that can be found on our website: <https://www.thehewittfertilitycentre.org.uk/patient-information-leaflets-and-videos/fertility-preservation/>**

### Useful Resources

Teenage Cancer Trust website: [www.teenagecancertrust.org/information-about-cancer/how-does-sperm-banking-work](http://www.teenagecancertrust.org/information-about-cancer/how-does-sperm-banking-work)


HFEA website: <https://www.hfea.gov.uk/treatments/fertility-preservation/>

### References

McAteer, M. (2023) *Andrology Production Room* [Photograph].

World Health Organisation (2021) WHO laboratory manual for the examination and processing of human semen. 6th edn. World Health Organization, Department of Reproductive Health and Research. Geneva, Switzerland. WHO Press. 2021


**This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at [pals@lwh.nhs.uk](mailto:pals@lwh.nhs.uk)**

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