

Information Leaflet

Egg Freezing

What is egg freezing?

Egg freezing is a technique that allows long-term egg storage in very cold conditions (-196°C).

Who can have egg freezing?


Patients facing medical treatment that may affect their fertility, such as chemotherapy, radiotherapy or surgical removal of the ovaries, may benefit from egg freezing. Also, patients at risk of premature ovarian failure or suffering from endometriosis, cysts and pelvic infections could preserve their fertility by storing their eggs for future use. Egg freezing could also allow individuals to delay having a baby, due to career demands, the lack of partner, or other medical reasons.

I am under 16 years old, can I have my eggs collected?

Eggs are not routinely collected and stored for minors unless there is an urgent care need. If you are under 16, you will be assessed to ensure that you have capacity to understand and consent to this procedure. Counselling is available to help support you and your family during this time.

How are the eggs collected?

Fertility drugs are given to stimulate the ovaries to produce several follicles; sacs of fluid that hopefully contain eggs (see the leaflet "Ovarian Stimulation"). The development of follicles is monitored by vaginal ultrasound scans. When the follicles have reached the right size, the eggs are collected by a clinician using a needle to remove the fluid within the follicles. This is done with sedation under ultrasound guidance. The fluid is looked at under a microscope and any eggs

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present are identified by the embryologist and placed in an incubator until they are frozen. Not all eggs are suitable for freezing. Only mature eggs will be frozen.

How long are eggs stored for?

Eggs can, in theory, be stored for decades and still be viable after thawing. The maximum legal period for storing eggs is 55 years according to the Human Fertilisation & Embryology Authority (HFEA). The HFEA is our governing body responsible for upholding fertility law. Initially, eggs can be stored for 10 years. For storage to lawfully continue after this, you will need to renew your consent every 10 years. A written consent form is required for storing eggs before treatment starts. Consent can be changed or withdrawn at any time before the eggs are used in treatment. Eggs can be donated for training or research purposes if they are no longer wanted for patient treatment. Eggs can only be used for training or research purposes if this option has been selected on the HFEA consent form. Please note, it is unlawful to store eggs beyond the period of consent, and The Hewitt Fertility Centre (HFC) has a legal obligation to dispose of them once consent has expired.


What happens when I want to use my frozen eggs?

Frozen eggs can be used in a natural or stimulated frozen embryo transfer cycle. Once you are ready to proceed with treatment, the eggs are removed from storage and thawed. Not all eggs survive the freezing/thawing process. Current data from 2021-2022 at HFC show that 80% of eggs survive the freezing/thawing process for patients of all ages.

Suitable eggs are inseminated with sperm using a technique known as Intracytoplasmic Sperm Injection (ICSI). ICSI is required to inseminate frozen-thawed eggs because the outer shell (zona-pellucida) surrounding the egg hardens after freezing making sperm entry difficult. ICSI is the only practical way of ensuring a sperm will enter the egg; this is because the injection procedure bypasses the hardened shell. ICSI is also required because frozen-thawed eggs no longer have their protective outer cell coating. Conventional IVF cannot be performed as the outer cell coating is necessary for sperm to achieve fertilisation.

What are the success rates?

Until recently, pregnancy rates from egg freezing procedures were very poor, but scientific advances have now made egg freezing a viable option. However, the data is still limited and with all fertility treatments, no clinic can guarantee this procedure will result in a successful pregnancy. The number of people who have used their frozen thawed eggs in treatment at HFC is small which means the dataset cannot be used to give a realistic chance of success. The HFEA reported the live birth rate for people using their own frozen thawed eggs to be 18%. In addition, the live birth rate for people using frozen donor eggs was reported to be 30% (HFEA, 2018).

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Are there any risks associated with egg freezing?

Frozen eggs are stored in liquid nitrogen, and this presents a theoretical risk of potential cross-contamination between samples in storage. To reduce this theoretical risk, all patients are screened for viral diseases (Hepatitis B, Hepatitis C and HIV) and stored appropriately according to viral status. Current data indicate that there is no increase in birth defects or chromosomal abnormalities in children born from frozen eggs, but we need to monitor this carefully (HFEA, 2016). Many healthy babies have been born following egg freezing/thawing; however, this is a relatively new procedure and may yet involve unrecognised risks. We will look after your eggs as carefully as possible, but we cannot be held responsible for loss or damage of eggs due to equipment failure.

Any other questions?

If you have any other questions about egg freezing, please speak to a member of the scientific staff.

References


HFEA (2016) <https://www.hfea.gov.uk/media/2656/egg-freezing-in-fertility-treatment-trends-and-figures-2010-2016-final.pdf>

HFEA (2018) <https://www.hfea.gov.uk/about-us/news-and-press-releases/2018/press-release-age-is-the-key-factor-for-egg-freezing-success-says-new-hfea-report-as-overall-treatment-numbers-remain-low/>

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

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