Fertility preservation including sperm and egg storage

There are a number of reasons people look to preserve their fertility into the future. One reason is illness such as cancer, and another is when their fertility may decline before they are ready to have children.

**Sperm**, eggs, embryos and testicular tissue and ovarian tissue can be frozen for people who face losing their fertility because of cancer treatment or another reason. Eggs can also be frozen by women who have not yet found a partner and who are concerned that their fertility will soon decline because of their age. Sperm can be frozen as back up for fertility treatment and as ‘insurance’ before vasectomy.

### Techniques
- **Sperm freezing** Sperm freezing is straightforward and many men will have enough sperm in one ejaculate for several IVF cycles. If there are enough good quality sperm after thawing then the first approach may be to try IUI treatment, keeping some sperm in reserve for IVF later if IUI is not successful. If you want to consider IUI as an option, you will almost certainly need to freeze three or more semen samples.
- Sperm can sometimes be banked during a vasectomy reversal by taking sperm from the epididymis during the operation. Sperm are usually frozen for future use during surgery and freezing thin slices of ovarian tissue. The slices are transplanted back to the women once cancer treatment has finished. This technique is still very experimental – fewer than 20 babies have been born worldwide.
- **Egg freezing** Egg freezing involves all the steps of an IVF cycle up to and including egg collection. Eggs are then frozen, usually by a method called vitrification. When the woman wants to use the eggs, they will be thawed, and she will resume the second half of an IVF cycle – adding sperm to the eggs, embryo transfer, and freezing any spare embryos.
- While a million or so children have been born from frozen embryos, the number of children from frozen eggs is much smaller, probably around 5,000 worldwide. Most of the world’s experience from frozen eggs does not come from fertility preservation but from routine IVF in Italy during the period when embryo freezing was banned for religious reasons.
- **Ovarian tissue freezing** This technique involves removing one or both ovaries surgically and freezing thin slices of ovarian tissue. The slices are transplanted back to the women once cancer treatment has finished. This technique is still very experimental – fewer than 20 babies have been born worldwide.

### Preparation
Most people facing fertility preservation won’t have enough time to make changes to lifestyle or to follow the tips for becoming ‘fertility fit’ (page 51). If you do have time before egg freezing, the key messages are – stop smoking, take folic acid, reduce caffeine and alcohol and discuss medications with your doctor.

### Screening
We will want to screen you for HIV, Hepatitis B and Hepatitis C. If we can’t get the results in time, we can still bank your sperm, eggs or embryos, but sperm samples will be stored in an ‘unscreened’ bank with other untested samples. This is because there is a theoretical risk of cross-contamination of viruses from one sample to another, although it has never been reported.

### Seeing a doctor
You don’t need to see a Fertility Associates doctor if you want to bank sperm, although we encourage you to do so if you have any questions or want to explore how your sperm might be used in the future.

### Consent
You will need to sign a consent form as part of bank sperm, eggs or embryos. Consent covers time limits to storage, your decision on who may use your sperm, eggs or embryos if you die, and seeing a doctor.
Health system.

Many options for fertility treatment you speak have time before you start very important that if you treatment, however it is preservation may exist.

Options for fertility

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Pathway to a child

embryos from bank failure.

be held responsible for the loss of sperm or embryos stored in it to perish. Bank failure has never been reported. As a precaution we store sperm for men positive to Hepatitis B or C or to HIV in a separate bank.

There is a very small risk that a liquid nitrogen bank will fail causing the sperm or embryos stored in it to perish. Bank failure has been reported occasionally around the world. We take reasonable precautions but cannot be held responsible for the loss of sperm or embryos from bank failure.

Obtaining eggs and embryos for storage carries the risks associated with the relevant parts of IVF treatment, which are covered on page 67.

Cost

Sperm storage before cancer treatment or similar treatment is nearly always publicly funded. You generally have to pay for sperm stored as back up for fertility treatment, and always for storage before vasectomy.

Egg or embryo storage before cancer treatment or similar may be publicly funded depending on the circumstances – most of the usual rules for eligibility for publicly funded IVF treatment apply.

Egg storage for social reasons and ovarian tissue storage needs to be privately funded, these prices can be found on our website.

Risks

Frozen sperm and embryos are stored in thin plastic straws immersed in liquid nitrogen. Cross-contamination of straws by viruses such as Hepatitis or HIV is a theoretical risk although it has never been reported. As a precaution we store sperm for men positive to Hepatitis B or C or to HIV in a separate bank.

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It has been an emotional journey to get this far. I had decided sometime ago that I wanted to be a mum, this was despite not having a partner, so set about exploring the options. The process was clinical. I met the specialist, underwent some tests, met with a counsellor and put my name down on the waiting list, hoping that at some stage in the future my name would come up and I would move to the next stage in the process.

My time came some six months ago, and I was asked to go into the clinic and decide on the donor. It was another surreal experience, where I was put in a room with four profiles of donors. The listing includes details such as age at the time of donation, height, weight, eye colour etc along with some other facts like education, relationship status etc. From these profiles I had to pick my “match”. To me, it was somewhat easy as I wanted someone who was interested in being part of any potential child’s life – that gave me two options, and then following another read through the profiles I picked my one.

I vaguely remember reading something about the donor wanting to meet prior to any treatment but didn’t really consider what that meant until some two months later when I rang the clinic to say that I wanted to start my IVF treatment. After speaking with the nurses and setting up various appointments, I was rung back and told that I would need to meet the donor prior to starting the process. I then had to set up a time with the counsellor and during the session would be introduced to the generous person who was allowing me the opportunity to be a mum.

It is fair to say that I was very nervous – what would the donor think of me and my choice to become a single mum and what if neither of us liked one another? I initially met with the counsellor, and she helped settle my nerves somewhat; asking me what sort of things I would want to know and was happy to answer any questions that the donor and his wife had.

Finally, she left me sitting in her room while going out to meet the donor and his wife. The first thing that the donor said when he walked in was “are you nervous?” - “so are we”. It was nice to know that we were both having similar feelings. The first few conversations were a bit stilted, managed largely by our counsellor asking questions of us all but pretty soon it was much more comfortable and all three of us talked openly about why we were doing what we were, about our families and anything that came up. It was a wonderful experience, albeit somewhat weird, and we parted quick friends with both the donor and his wife wishing me all the best and hugging goodbye.

I now had a much better idea of the person that was potentially going to be my baby’s biological father – he was no longer just words and statistics on a piece of paper, and better still I knew that both he and his wife would be open to being part of the baby’s life should this be something that they wanted to explore at some stage.

I had up until that stage continually questioned if what I was doing was really right and if I really could have a baby whose father was just statistics and a first name – how would I explain that in later life?

I know that meeting a donor is not a common occurrence and for some people the fact that the person’s details are anonymous, unless the child wanted to know, is right for them. I was not one of those people. Meeting the person that was generous enough to give me the opportunity to be a mum was an enormous honour and made the whole “scientific” procedure a lot more human. It is something that I would recommend to others to do given the opportunity.


Here you will find stories our patients have chosen to share with you about their experiences with fertility treatment, the impact on their lives and the different ways they coped with treatment. These stories are written by them and are unedited – they are in their own words.

I wanted to be a mum

“Our Pathway...”