

FUTURE-PROOFING — YOUR — FERTILITY

For some New Zealand women, the ideal age to have children fertility wise is out of sync with the practical reality of life – is egg freezing technology the answer? BY ZOË LAWTON

One million. That's the number of eggs a woman has at birth. By puberty, 400,000, and by her mid-30s, she has around 25,000 left. This reduction is caused in part by menstruation, although the vast majority of eggs simply die off naturally over time.

Twenty-five thousand eggs still sounds like a lot, but the problem is that women tend to ovulate their best eggs when they are younger.

Imagine a jar of jellybeans, explains Dr Andrew Murray of Fertility Associates. "On the day you are born, this represents the total number of eggs you will ever have. The 'good eggs' are the coloured jelly beans and the 'bad eggs' are the black jelly beans. Most people don't like black jelly beans, so if you were to pass the jar around sharing them out over time, eventually the majority of the jelly beans left in the jar would be black ones."

In other words, the older a woman is, the higher percentage of "bad eggs" she has, resulting in a lower chance of conceiving naturally. Dr Murray says at age 30, the chance of conceiving naturally is around 20 percent per month, by age 40, it is five percent, and by 45 it drops to about one percent.

From a fertility perspective, it's clear that it's better to begin trying for a child sooner rather than later. However, for an increasing number of women, this is not convenient – or even realistic. In an attempt to put their biological clock on hold, some women are now taking matters into their own hands and are exploring the option of freezing their eggs.

When egg freezing technology was legally approved by the Government in 2009, it was envisaged that it would be used by women who wanted to preserve their fertility before undergoing treatment for cancer. This remains the case in 2014, although the recent media coverage of egg freezing parties in New York has helped spark interest in utilising the technology for non-medical reasons in many countries, including New Zealand.

At these parties, dubbed the modern equivalent to Tupperware parties, women in their late 20s and 30s listen to presentations by fertility specialists and discuss egg freezing over nibbles and a few drinks. The company that hosts the parties – EggBanxx – promotes itself using the slogan "smart women freeze" and links women to a network of fertility clinics. It also provides financing options to make the technology more affordable.

The popularity of eggsurance.com, an information sharing forum recently featured in *Time* magazine, also signals increasing awareness of egg freezing. At the site, women are able to share their knowledge and experiences with other women who can also post questions. The site's founder, Brigitte Adams, froze her eggs in 2013 at the age of 38. She says her team's mission is to build a community for proactive women who want to ensure they have the option of having children – just not right now.

FERTILITY AND REALITY – OUT OF SYNC?

For an increasing number of women, the ideal age to have children from a fertility perspective is now out of sync with the ideal age from a practical perspective.

Robert Didham, a population expert at Statistics New Zealand explains that the average age a woman now has her first child is just over 30 years. For a number of reasons, university-educated women are likely to be first-time mothers at an older age than the national average – many in their late 30s and early 40s.

Egg freezing might appeal to some women for a range of reasons; the first being relationship status.

While it is possible to have children with a sperm donor, the desire to have children with a partner is strong for most women. The problem is, meeting the right person to have children with doesn't always happen at the right time. Having a backup plan could take the pressure off finding a suitable partner or remove the need to have to settle with someone unsuitable just in order to have children.

The shortage of men in comparison with women adds another

complication to the dating market. Social and Economic Researcher Paul Callister conducted a Victoria University study on the New Zealand “man drought” in 2011 and updated the study this year with Didham using 2013 census data. They found that in the prime relationship forming and childbearing age group of 30 to 40, there is a significant imbalance of the number of men and women, around 100 women for every 90 men.

Dr Murray confirms that the main reason why the majority of his clients freeze their eggs is because they are single and in their mid to late 30s. However, he goes on to say that career aspirations or demands are other reasons why some women – both single and partnered – might choose to freeze their eggs.

It could be an appealing option for women in their late 20s who want to focus solely on their careers until their late 30s or early 40s without the added pressure of having children. Being in a more comfortable financial position with a higher salary and less student loan or mortgage debt is another benefit of staying in the workforce longer before starting a family.

Egg freezing might also be considered by women who think taking a break to have children at the ideal age fertility wise will have a negative impact on their career. The legal profession is an example of a profession where this age directly coincides with a crucial time in terms of career development – around ten years after graduation is the time at which women’s prospects for partnership at a firm are often considered after years of hard work and long hours.

A recent study by the Auckland District Law Society and Auckland University of Technology on women’s career progression in law firms found that having children was perceived by women as a barrier to becoming a partner. Many women also said they felt like they were forced to choose between partnership and childbearing, and struggled with the issue of “if and when” to have children.

In light of these findings, egg freezing may be an appealing option for female lawyers as well as women in other professions where key career milestones coincide with the time they may want to have children.

Although, this does raise the question of whether egg freezing is perhaps a drastic measure that women should not have to take. Rather than offer a solution to balance competing career demands, it could be seen as an indication that workplaces need to do more to support women to have children at any age but particularly in their 30s.

Paul Callister, who has done extensive research on child bearing and its impact on employment, says egg freezing might not be necessary if workplaces offered better policies for work-life balance. This includes more flexible hours, working from home and also increased paid parental leave and more childcare support.

He goes on to say that if men are also offered increased workplace flexibility and are encouraged to stay at home to look after the children, this would take some of the pressure off women. However, there is still a lot of progress to be made – one notable gap is that men do not have an independent legal right to paid parental leave in New Zealand. Societal attitudes about men’s roles in terms of raising children also need to become more positive so that men increasingly choose to be stay-at-home dads or work part-time.

Brigitte Adams, founder of eggsurance.com, stresses that not all women who freeze their eggs simply fall into two distinct categories

– single women unable to find a partner and career focussed women. She explains of herself: “I froze my eggs simply because my life did not take the perfectly linear path that I always thought it would.” She says this is also true of many women she has come into contact with through her site. “Often their lives bent off course because of, for example, an unforeseen divorce just when they were ready to begin starting a family.”

Adams also makes the point that women shouldn’t apologise or feel ashamed for freezing their eggs. In her opinion, it’s a smart, proactive and empowering step to take.

Monash University, in conjunction with Melbourne University and Melbourne IVF, has recently announced that it is about to conduct a study on Australian women’s experiences of egg freezing.

Professor Jean Fisher, one of the lead researchers, explains that about 180 women who have stored material with Melbourne IVF have been invited to participate in the study. They will be asked to provide information on their personal circumstances at the time they froze their eggs, their reasons for doing so, their experience of the medical care they received, and whether they eventually used their eggs to have a child.

Fisher says the aim of the study is to help inform other women who are considering whether to freeze their eggs and to improve society’s understanding of why women are choosing this option. In her opinion, it is essential that women are well-informed about the potential risks, promised benefits, and the likely pregnancy rates from stored eggs. The results of the study will be available in early 2015 and will no doubt provide some interesting food for thought for New Zealand women.

IS EGG FREEZING A REALISTIC OPTION?

As with all fertility treatment, cost is a major factor and as egg freezing technology is still relatively new, it does not come cheap. One round of egg freezing costs around \$10,000, plus there is the cost of eventually inseminating the eggs and implanting the resulting embryos in order to get pregnant.

For some women, the cost won’t be an issue as the ability to have children is, to them, priceless. For others who plan on having children at an older age, it might be a strategic, long-term financial decision to potentially avoid multiple rounds of IVF in their early 40s, which can be expensive.

Another way to put the cost into perspective is to compare it with the total cost of raising a child until the age of 18. In 2009, a panel of economists advised IRD of the cost of raising a child in order to calculate revised child support rates. They concluded that the average cost of raising a child (on two average incomes) is \$250,000. An extra \$10,000 on top does not seem like much more in comparison.

As the demand for egg freezing increases and the technology improves so it is less expensive to provide, it is likely the cost will come down. Banks may also start to take notice of the increase in

ONLY A RELATIVELY SMALL NUMBER of children have been born using frozen eggs worldwide...

demand for fertility treatment generally and begin providing specific finance options to make egg freezing more affordable and accessible.

While the cost of egg freezing might put some women off, many may not consider that it’s for them simply because they assume they won’t need to freeze their eggs. The assumption that life will go according to plan and they will have no difficulty conceiving naturally is likely to be held by women in their late 20s and early 30s, which is ironically the ideal age at which to freeze eggs.

Women also perhaps overestimate their ability to get pregnant using IVF in their mid-30s onwards. This perception has arguably been perpetuated by media coverage of celebrities who appear to have had children with little difficulty at an older age. However, Dr Murray speculates that what these celebrity stories often leave out, particularly those involving celebrities in their 40s, is that the child was conceived using a much younger egg donor.

When it comes to pregnancy success rates using frozen eggs, a dose of reality is also needed as the technology does not provide women with a 100 percent guarantee of having children.

Only a relatively small number of children have been born using frozen eggs worldwide so there are no conclusive studies, which directly compare, for example, a woman’s ability to get pregnant at age 39 using her 39 years old “fresh” eggs, compared with eggs she had frozen when she was 33.

However, returning to Dr Murray’s analogy, it is fair to assume that a sample of eggs collected at age 33 would contain more “good eggs” than a sample collected at age 39. As a result, a woman would be more likely to get pregnant using her 33-year-old eggs.

Dr Murray also explains that the younger the age of the woman at the time the eggs are frozen and the number of eggs that are frozen

EGG FREEZING: HOW IT WORKS

Dr Murray explains that the overall process takes just under two weeks and consists of three main steps.

STEP 1: Ovarian stimulation. On the second day of the woman’s period, a hormone injection is given to increase the number of eggs available for collection. These are the same hormone drugs that are used for IVF.

STEP 2: Egg collection. About ten to 12 days after the hormone injection, the eggs are collected. The procedure takes about ten minutes in total. Slight sedation and pain relief is provided.

STEP 3: The eggs are frozen immediately in a thin plastic straw immersed in liquid nitrogen.

This three-step process can be repeated in order to collect a higher number of eggs.

When the time comes to use the eggs to conceive a child, they are thawed and sperm from a partner or donor is added to make an embryo. The embryo is then transferred into the woman’s uterus.

are the most crucial factors to boost a woman’s chances of getting pregnant using frozen eggs.

With all this in mind, rather than thinking of the technology as an insurance policy, it should perhaps be thought of by women as placing a bet on their fertility – with the odds in their favour. In the pursuit to “have it all” – a partner, a successful career and children – the question is, will it be a gamble an increasing number of women take? **MW**

EGG FREEZING: THE LAW

The Government approved egg freezing as an “established procedure” in 2009, which meant that fertility clinics could begin legally offering the service to patients.

New assisted reproductive technology only acquires this status if the Advisory Committee on Assisted Reproductive Technology makes a recommendation to the Minister of Health after considering peer-reviewed research of the known risk and benefits of the technology. The Committee also considers whether the level of risk is acceptable in New Zealand and whether the procedure is ethical.

New Zealand law limits the storage of eggs to a maximum of ten years initially. Beyond that, women must apply for an extension from the New Zealand Ethics Committee on Assisted Reproductive Technology.

Women who do not end up using their eggs can ask the clinic to destroy them or donate them to another woman. While some women choose to do this as there is a shortage of egg donors in New Zealand, others choose not to as it is no longer possible to be an anonymous donor. All children born using donated eggs have a legal right to access identifying information about the donor from the age of 18.

One risk with egg freezing is that the eggs might be accidentally damaged or destroyed while in storage. In the landmark case of *Yearworth v Bristol National Health Service* in 2009, a group of male cancer patients took action against a hospital in the UK for accidentally thawing their sperm and taking away their ability to have children. The court decided that the sperm was the men’s property and awarded them compensation. If this occurred in New Zealand in relation to frozen eggs, a similar conclusion could be reached.

Another risk is that the eggs might be mistakenly mixed up with another woman’s eggs and then used by her to conceive a child. There are examples of this occurring overseas, although there have been no reported cases in New Zealand.