A woman with long blonde hair, wearing a light blue button-down shirt, is seen from the side, looking out a window. The background is a blurred cityscape.

**Every day, a woman
treated by us learns
that she is pregnant.**

**The excellent work
of our team makes
one woman happy
every day.**

Europe IVF International s.r.o.
www.europeivf.com/en
info@europeivf.com
+420 257 225 751

A woman with long blonde hair, wearing a light blue button-down shirt, is sitting and smiling. She is holding a white mug with both hands. The background is a blurred indoor setting.

**Preserving
women's
fertility**

Part of the Treatment Guide series of brochures

Introduction

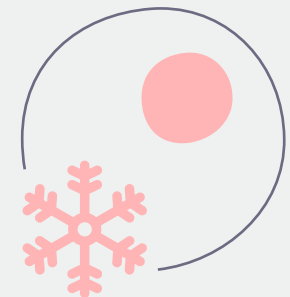
Our life plans, dreams, expectations and current situation don't always line up with the ticking of our biological clock. Sometimes we may only make the big decision to start a family when our fertility is in decline due to age. Thankfully, modern technology makes it possible to preserve our fertility for the future. Whether you decide to do it for personal or health reasons, freezing your eggs or sperm can give you a choice and provide an insurance policy for the future.

Egg freezing was originally used to help women undergoing cancer treatment, which can destroy their reproductive cells (oocytes – eggs). Recently, however, even healthy women are considering preserving their fertility for social reasons.

There are two types of freezing based on the reason behind it

Social freezing

Medical freezing



Důležité upozornění:

Informace uvedené v této brožuře nenahrazují žádné informace, ani rady poskytované lékařem. Váš lékař vám pomůže vybrat pro vás ten, nejlepší postup.

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Social freezing

A personal choice for planning your reproductive future

Social freezing, or egg freezing for non-medical reasons, is a process that allows women to preserve their fertility for the future. This method is becoming increasingly popular, especially among women who want to postpone motherhood due to their career, personal goals or not finding the right partner. Freezing eggs at a young age allows women to use their eggs in the future, when their fertility is naturally lower as it declines with age.

Thanks to advances in assisted reproduction, women can now have more control over their reproductive future without being limited by their biological clock. This procedure gives them the freedom to choose motherhood when they feel ready for it, without having to worry about the quality of their eggs.

Why is social freezing becoming more popular?

Many women are postponing childbirth to a later age in order to pursue other opportunities first. According to OECD data, approximately 20% of women aged 40-44 were childless in 2010, compared to 14% in 1995, and this trend is expected to continue.

Delaying family planning and the natural fertility decline after 35, which accelerates after 39, make egg freezing a way to preserve fertility for the future.



Possible reasons for social freezing

Work in hazardous occupations and adrenaline sports

If you work in an environment that poses an increased risk of injury or trauma (e.g. the military, fire department, rescue worker) or participate in extreme sports, freezing your reproductive cells may be a wise decision. Having this option gives you confidence that you will be able to start a family in the future, even if unexpected complications arise.

Age and fertility

The biological clock is ticking — especially for women. Their fertility begins to decline around the age of 30, with a steeper decline after 35. If you've reached this age and you are unsure when you'll want or be able to have children, egg freezing can be an insurance policy for the future. Sperm quality declines more slowly, but age also plays a role here, especially after age 40.

We recommend considering social freezing in the following cases

You haven't yet found the right partner to start a family with.

You want to prioritize your career, education, or travel plans for now.

You would like to achieve other life goals first, such as buying a house or building financial savings, and only then try for pregnancy.

Genetic factors

If there are genetic predispositions in your family that can affect your fertility (e.g. premature ovarian failure), freezing your reproductive cells is a useful preventive step.

Postponement of parenthood

If you aren't ready to start a family but you know that you would like to have children in the future, freezing your reproductive cells is a very good solution. Many people are postponing parenthood today to further their career, for education and personal priorities, or due to the absence of a suitable partner. However, fertility naturally declines with age, especially in women. Freezing eggs or sperm at an early age increases the chances of a successful pregnancy in the future.

Good to know

During your consultation with our medical specialist, we will be happy to discuss your motivation for social freezing with you to make sure it is the medically recommended method for your future parenting plan.

Medical freezing

A lifeline for future fertility

Freezing eggs for medical reasons is a proactive step for people facing medical procedures that may affect their ability to become pregnant in the future.

This technology gives hope to women facing various health issues that threaten their fertility. It offers them the possibility to preserve healthy eggs for later use and ensure that their health does not limit their possibility of having biological children. Medical freezing provides hope and reassurance during challenging health journeys and gives individuals control over their reproductive future.



Reasons for freezing eggs for medical reasons

Oncological treatment

Women who undergo cancer treatment with chemotherapy or radiotherapy often face the risk of impaired or lost fertility. Freezing their eggs before treatment may allow them to retain the possibility of having biological children after successfully managing the disease.

Premature ovarian failure

For women who have a family history of premature ovarian failure (premature menopause), egg freezing may be a preventive step to preserve fertility before ovarian function is lost.

Autoimmune diseases

Some treatments for autoimmune diseases, such as lupus or rheumatoid arthritis, can affect ovarian function. Freezing eggs before starting these treatments can ensure a woman's chances of future pregnancy.

Genetic predisposition

Some genetic mutations can lead to loss of fertility or increased risk of certain diseases that can compromise reproductive health. Egg freezing may be an option for women who want to protect themselves from these risks.

Ovarian function, fertility and age

During a woman's reproductive period, the ovary contains hundreds of thousands of immature eggs.

The eggs ripen, surrounded by liquid in a blanching casing. This spherical formation is called a follicle.

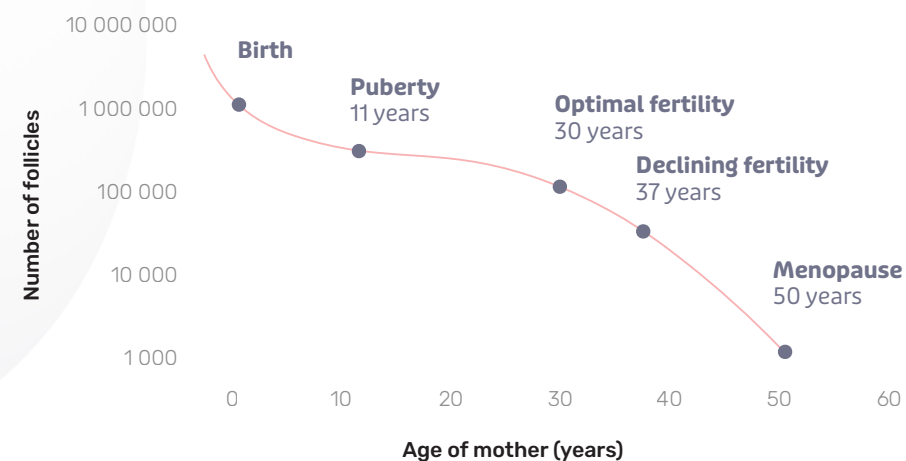
Usually, several smaller follicles start to develop in a wave over a period of weeks, and then most of them stop growing, while one – the dominant follicle – continues to grow and releases a mature egg during ovulation. As we get older, the number of eggs that can go through the maturation process declines, until there are almost none left by the age of 50.

The most fertile period for women is between the ages of 20 and 30, when the ovaries still contain a large number of healthy eggs.

10-15 years prior to menopause, ovarian function deteriorates, even though the woman has regular menstruation cycles. This is especially true for women in their 40s, who are less likely to get pregnant and give birth to a healthy baby because of the age-related decline in egg quality.



A woman is most fertile between the ages of 20 and 30



What is egg freezing?

Egg freezing is one of the most promising treatment options in fertility preservation. Over the last 25 years, the technology for long-term preservation of human eggs has improved significantly. This has been helped by the 'flash freezing' technique of vitrification, which has changed the way eggs are frozen.

Vitrification has increased the survival rate of oocytes during the freezing process and subsequent thawing for extra-uterine insemination.

Research suggests that the number of successful pregnancies with frozen eggs is very good, although it is important to note

that freezing eggs is not always a guarantee of that pregnancy will be achieved.

The actual egg freezing process involves the patient undergoing ovarian stimulation and oocyte (egg) retrieval to obtain a sufficient number of mature eggs that can be frozen and thawed later when the patient is ready to have a baby.

The optimal number is considered to be approximately 20 frozen eggs as insurance for later use for artificial insemination. In combination with quick-freezing techniques (vitrification) and ICSI fertilisation, the number of pregnancies using frozen and fresh oocytes is standardised.



Stages of egg freezing treatment



1 Consultation, examination, assessment and consent

The evaluation of egg freezing involves an initial consultation with our reproductive medicine specialist and a series of tests that include an ovarian reserve blood test (AMH) and an ultrasound.

A treatment plan is drawn up based on these results, and the stimulant drugs that will be used are considered based on the doctor's recommendations.



2 Treatment protocol

The initiation of treatment is planned either with a period or with certain adjustments to the period. Stimulant drugs play a key role

in ensuring the success of egg freezing. The main medications we use in our Europe IVF social freezing cycles are:

- ✓ **Gonadotropins (FSH/LH):** these are known as stimulatory injections because they stimulate the ovary to grow antral follicles. There are various drugs – Merional, Meriofert, Gonal F, Bemfolia and Fostimon – that contain stimulating hormones. The dosage of the medications is determined by your IVF doctor based on a previous examination.
- ✓ **Antagonist (Cetrotide/Orgalutran/Ganirelix):** this is a drug that is given to block ovulation. It is usually administered from day 5, 6 or around 7 of stimulation, or later in some cases.
- ✓ **Triggering injections (Ovitrelle/Decapeptyl):** these are administered to trigger the last stage of egg maturation to make the ovary ready for retrieval.

Important notes on ovarian stimulation

- ✓ For maximum success of the cycle, it is very important to carefully follow the tailor-made stimulation protocol, the application times and the medication dosage specified in it.
- ✓ Throughout the stimulation period, 'barrier' contraceptives should be used to prevent pregnancy.
- ✓ If your menstruation is irregular, we recommend taking a pregnancy test.
- ✓ Make sure you have at least a 2-3 days' supply of medication.

3 Ovarian stimulation

Once we agree on your plan, we will begin treatment either with the start of your period or on an individualised plan based on your availability. You will administer the stimulation injections yourself. They are taken daily at approximately the same time for 10-14 days. The injections are injected just under the skin in the abdomen or thigh area. Ultrasounds are performed to check the response of the ovaries to FSH injections.

During stimulation, an ultrasound is performed to measure the size of the follicles – folliculometry. The dosage can be adjusted depending on the development of follicles.



Frequently asked questions about stimulation

Can the size of the follicle indicate that there may be an egg in the follicle?

During ovarian stimulation, many follicles may grow, although some may not contain an egg. Unfortunately, there is no method to prove whether eggs are present in the follicles. Eggs can only be examined after ovarian puncture.



How do follicles grow?

The response of follicles in the ovaries varies from client to client. The goal of stimulation is to achieve an adequate number of growing follicles for a good egg count. A stimulation and treatment plan is drawn up after reviewing the results of all the tests performed. Although the stimulation protocol is carefully planned according to each patient's test results, the ovarian response can sometimes be unexpected. We therefore carefully monitor each patient during stimulation and adjust the dosage of medications if necessary.



When are the eggs retrieved?

When the follicles are large enough, egg retrieval (puncture) is planned. The egg retrieval injection (or trigger injection) is usually administered about 36 hours before the egg retrieval process, so it is usually done in the evening.

It is very important for the trigger shot to be given at the prescribed time.

4 Egg retrieval (puncture)

Egg retrieval consists of extracting the follicles from the ovaries and retrieving the eggs. This is a one-day procedure that is usually performed in the morning. All procedures are performed at our clinic.

Follicles are removed from the ovaries with a needle, which is inserted under ultrasound through the vaginal wall into the ovary, where all follicles of adequate size are aspirated. This procedure is performed by an IVF specialist.

An anaesthesiologist is always present during the procedure. The procedure is performed under general but short-term anaesthesia, so recovery is very fast. The entire procedure takes approximately 15 to 20 minutes.

Frequently asked questions about egg retrieval

Do all follicles contain eggs?

Follicles are sacs filled with follicular fluid. Inside, they are lined with follicular cells that produce female sex hormones, which, among other things, help the uterine lining grow properly.

Under the influence of stimulating hormones, the follicle grows and the egg begins to mature inside. This is completed by activating the last stage of cell division with a trigger injection. Ideally, there should be one mature egg in each follicle at the end of the process, but this is not always the case. Sometimes a follicle is removed in which no egg has formed.

Approximately 2 hours after the procedure, patients can go home with an adult. For the rest of the day, they are advised to rest.

After the puncture, we'll know how many eggs have been retrieved. In some cases, the follicles may not contain any eggs or may contain abnormal eggs. Neither the number of eggs nor their quality can be predicted until the oocytes are collected.

Serious complications are rare. It is important to watch for signs of severe pain or light-headedness. In these cases, we recommend visiting a medical facility or calling an ambulance as soon as possible.

What are mature and immature eggs?

Depending on the type of maturity, we refer to the eggs as M2 (mature egg) and M1 (immature egg).

Maturity indicates that chromosome segregation has occurred and the eggs are capable of fertilisation, but it does not confirm the type of chromosome segregation (mature eggs may therefore be genetically abnormal).

Immature eggs do not have the correct number of chromosomes, i.e. they have not

passed the last stage of cell division and therefore cannot be fertilised.

The proportion of mature and immature eggs varies from woman to woman. Older women and women with polycystic ovaries usually have a higher proportion of immature eggs than the population average.

Only mature eggs are frozen. We cannot see oocytes on an ultrasound, only follicles. It is therefore impossible to predict how many eggs can be frozen. In rare cases, there may be no eggs, or all the eggs may be immature. Suitable material for freezing may not be obtained.



5 Freezing eggs

The eggs are frozen in the IVF laboratory using the latest technology called vitrification (quick freezing). Oocytes frozen in this way can be stored for many years without deterioration.

When the woman is ready to use her eggs, the oocytes are thawed and fertilised with sperm. The fertilised eggs are then cultured for a few days. The blastocyst (5-day-old embryo) can then be transferred into the woman's uterus with a chance of pregnancy.

Risks of egg freezing

Egg freezing is considered a safe procedure, but as with any medical procedure, there is a risk of possible complications. These are related to hormonal stimulation and egg retrieval.

Administration of hormones used for stimulation may slightly increase the risk of thrombosis (clots). If you have a strong family or personal history of clots, you must inform your doctor.

Possible side effects of stimulation include under- or over-stimulation of the ovaries. Egg retrieval can be complicated by pelvic infection or other pelvic trauma, although this is very rare.

Other risks of egg freezing are related to possible treatment failure: the eggs may not survive thawing, may not fertilise or develop into embryos, or you may not become pregnant after embryo transfer.

Frequently asked questions about egg collection

How many eggs will I be able to freeze?

It is very difficult to accurately predict the number of eggs retrieved and the number of viable embryos that will eventually be produced. The expected success rate of the procedure can be partially estimated based on an initial assessment of the ovarian reserve with the anti-müllerian hormone (AMH) test and ultrasound. The AMH test can give us an indication of the remaining egg reserve, although it does not provide any information about egg quality.

What are the risks and side effects of egg freezing?

When deciding whether to preserve your eggs for future use, it is important to consider the risks of this procedure and the likelihood that your eggs will survive the process. Ultimately, you need to decide whether to try to get pregnant in the near future or use this technique to preserve your fertility.

The risks associated with social freezing are mostly related to hormonal stimulation and egg retrieval. The most common side effects of hormonal stimulation are redness at the injection site, breast pain, bloating and mood changes. These symptoms usually subside within a few days after egg retrieval.

Egg retrieval using ultrasound and ovarian stimulation have been performed for almost 30 years, and the risks have been greatly reduced. The risks of egg freezing are small but significant if they occur.



In some cases, the ovaries may overreact to hormonal stimulation, leading to ovarian hyperstimulation syndrome. However, thorough medical examinations and individualised stimulation treatment minimise this risk at our clinic.

The most common postoperative symptoms after egg retrieval are pain, abdominal distention, nausea and fatigue. These may take 3-4 days to resolve, and recovery time varies from client to client.

To prevent complications, in addition to professional medical care, the patient's discipline is also important; she should strictly follow all instructions and recommendations by doctors and medical staff. Statistically, frozen eggs have a lower pregnancy rate than fresh eggs at the age at which the oocytes were frozen.

How are the eggs stored?

Mature eggs are frozen using the vitrification method (quick freezing) and stored in cryostorage directly at our clinic. They are not transported anywhere and are not handled during storage.



How long can eggs be stored?

Thanks to vitrification, eggs can be safely stored for many years, or even decades, while maintaining their quality. It depends on each patient's preference as to how long she wishes to preserve her eggs. The price for one cycle of social freezing includes one year of storage. If you only expect to use your eggs after several years, we recommend taking advantage of our discounted biological storage packages.

It is important to keep in touch with the clinic and inform us if there is a change in your delivery address or other contact details, so that we can contact you before the storage period expires and arrange the next course of action.

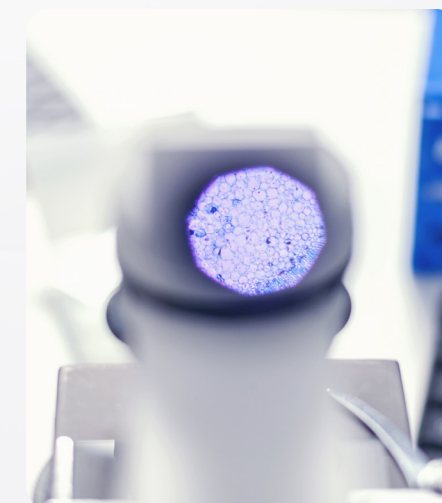
What happens if I want to use my eggs? How many survive?

The eggs are thawed (heated) and then fertilised with sperm using the ICSI method (intracytoplasmic sperm injection into the egg).

Thanks to a new technology called vitrification, approximately 80-90% of eggs survive thawing. The number varies depending on the age of the patient at the time of freezing and her ovarian reserve. Older women and women with a lower reserve have a lower egg survival rate.

The egg and sperm contribute equally to the creation of the embryo, i.e. 50% each. Unless we know the quality of the partner's gametes, it is very difficult to accurately estimate the chances of achieving pregnancy and giving birth to a healthy baby.

The only thing that can be said with certainty about social freezing is that it allows fertility to be maintained at the same level as when the sex cells were frozen.





Key information and psychological support

The whole process of social freezing can be mentally challenging, but with the right support and preparation you can get through it calmly and with confidence.

Before starting therapy

Clarify your motivation

Before you decide to freeze your eggs, it is crucial to clearly define why you're doing it. Whether it's because of your career, the absence of a suitable partner, or other personal reasons, these motivations will give you emotional support throughout the process. It can also help to consult your reasons with a professional so you can be more confident in your decision.

Psychological support

We may recommend a consultation with a Europe IVF therapist before starting hormone treatment. This step can help you prepare for the emotional challenges that may arise during the process

Factors influencing the success of egg freezing

Ideally, a stimulated cycle should result in the retrieval of 10 eggs (for women under 35), but this number is highly variable and depends on several factors, including the woman's age, overall health, ovarian reserve, and current ovarian function.

It is important to note that the success of egg freezing is particularly uncertain for women over the age of 38.

What are the chances of success from egg thawing to pregnancy?

- Approximately 80-90% of eggs survive thawing.
- Approximately 50-80% of the surviving eggs will fertilise.
- Approximately 10-40% of fertilised eggs develop into quality embryos, depending on the age of the woman and the quality of her eggs.

In women under 38 years of age, a single embryo has a 30-40% chance of developing into a clinical pregnancy, with the same chance of miscarriage as other women of the same age.

As with fresh eggs, one to four embryos should develop for every 10 eggs collected.

During process

Emotional fluctuations

Hormones used to stimulate the ovaries can cause increased feelings of anxiety, irritability or depression. Having a plan in place to cope with these emotions and being able to turn to support such as family, friends or a therapist can be very helpful.

Neighbourhood support

It's important to build a solid support network, whether it's family or friends. Communicate openly about what you need from those around you and don't hesitate to ask for help if the situation calls for it.

After egg retrieval

Emotional processing

After the procedure, some women may feel relief, but there may also be uncertainty about the future. Continued therapy or an initial consultation with a therapist can be helpful in coping with the mixed feelings that may follow.



Why should I consider egg freezing at Europe IVF?

Age-related infertility in women is one of the most common problems fertility specialists encounter every day when trying to help patients get pregnant.

- ✓ We have had many **successful births** from our egg freezing programme.
- ✓ We have **many years of experience** with social freezing and we achieve a great success rate of thawing eggs.
- ✓ **We educate and inform** the general public about support options for women who want to optimise their chances of starting a family before the natural decline in ovarian function.



Conclusion

The fertility preservation method represents a significant advance in the field of reproductive medicine. It is an affordable option for women who want to plan their future with greater flexibility and certainty, and who wish to have children in the future but are delaying pregnancy at the most fertile age for a variety of reasons. Egg freezing can be seen as a way to reduce the risk of future infertility.

We always make sure that your treatment takes place under the best conditions and at the right time.

You can find lots of information adapted to various stages in a couple's journey on our website www.europeivf.com/en.

Are you ready to take the first step?

If you are ready, book your first appointment at our clinic.

Our coordinators can offer you in-person, phone or video appointments.

We are available during normal business hours if you request, at a time that suits your preferences.

Book a consultation with one of our leading fertility specialists



Europe IVF International s.r.o.
www.europeivf.com/en
info@europeivf.com
+420 257 225 751

**If you have any questions,
ask us.**



You dream. We care.