



BORN

1997

SIMSIVF

ADVANCED FERTILITY CARE

Your Guide to Fertility Treatment

Explore your options for starting a family

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Introduction

Sims IVF has provided IVF treatment to couples in Ireland since 1997. We strive to bring the joy of a family to those who need help with their fertility and to assist people in a confidential, professional and caring manner. Our mission is to provide hope to all those that need help starting families.

Our vision is to be at the forefront of assisted reproductive technology and support. Our vision is centred around our core values which are outlined below:



Support throughout your entire journey



Innovation, science and advanced care



Mindful of you emotional and physical wellbeing



Success Rates - we are proud of how many families we have helped create



1. Support throughout your entire journey

"Having already tried a number of treatments and failed, we now need to be sure that we are getting the best treatment available in Ireland."

We genuinely believe that the support and care that we give to each of our patients is absolutely critical. However, some people succeed in having a baby, and some do not.

Our aim is to help you to achieve peace of mind, no matter what the outcome. We help you in every way we can to maintain a positive focus on your relationship, your general health and your psychological wellbeing.

We value your time as much as you do. Our waiting rooms are as fast and efficient as possible. We have car parking, internet access and refreshment areas.

We have full-time counsellors to provide guidance and support when you need it.

2. Innovation and advanced care: "We want to know that we will get the best resources and facilities for our treatment - and without a long waiting list."

We have invested significantly in state-of-the-art facilities for all of our clinics. We have multiple operating theatres and ultrasound suites to minimise waiting times. We also provide men's private treatment facilities and private recovery rooms for women.

We Are Responsible For:

The first Donor Gamete (using egg or sperm donors) programme, in Ireland.

Introducing time-lapse technology into Ireland.

The first use of Blastocyst Culture and Transfer.

Providing IMSI (Intracytoplasmic Morphologically-Selected Sperm Injection).

At our clinics, we have installed 3D ultrasound facilities. These colour dopplers provide 3D evaluation of uterine and vaginal anomalies.

Zentra Pharm Ireland, our onsite testing partner, provides the most up-to-date testing expertise and facilities for our patients.

3. Mindful of your mental and physical wellbeing

"We need someone to listen to our needs and provide us with insights and advice in a confidential environment."

Meeting the infertility challenge is all about teamwork and we want to work with you to make your dream of having a baby a reality. Our first step is to listen to you and gain an understanding of the nature of your problem.

We have highly trained counsellors that can provide support and advice throughout your journey with us.

Also, our nurses are always at the end of the phone should you have any worries or queries. We operate a 24 hour, seven day a week emergency phone line so we are always here to listen.

4. Success rates - we are proud of how many families we have helped

Sims IVF is Ireland's number one fertility clinic with locations in Clonskeagh, Swords, Carlow and Cork. Our doctors work at the forefront of IVF technology and our IVF success rates are world-class. As part of Virtus Health, one of the world's leading fertility groups, we share experience and knowledge from around the world ensuring you get access to the very best reproductive medical care.

Our experienced doctors will support and guide you throughout the process and develop a customised treatment plan that is specific to your needs.

"Having already tried a number of treatments and failed, we now need to be sure that we are getting the best treatment available in Ireland."





Part 1: Understanding Infertility

How Fertilisation Works

Fertilisation occurs when a woman's egg and a man's sperm fuse to form a single cell. This cell starts to multiply and forms a grouping of cells called an embryo. After the eight week, the embryo is called a foetus.

Ovulation – the female egg

Ovulation is when the ovary releases an egg during menstruation. The exact time of the month for ovulation depends on your menstrual cycle. Taking an average menstrual cycle of 28 days, ovulation occurs on days 12-15, with day one being the first day of your period.

At ovulation, an egg is released from the ovaries. It travels down one of the fallopian tubes towards the uterus where – if sex has taken place within the last four days – it may meet sperm.

Eggs can be fertilised for 12-24 hours after being released. Sperm can stay active in your body for up to 48 hours.

If the egg is not fertilised, or if the fertilised egg cannot attach to the womb lining, then a period begins.

The male sperm

During sex, a man can release up to 300 million sperm. Yet only a small number make it through the neck of the womb and on to the fallopian tubes.

When a sperm meets with an egg in the fallopian tubes, fertilisation may occur. Only one sperm is needed to fertilise an egg.

The fusion of the female egg and the male sperm

Once the sperm penetrates the egg, the chromosomes carried by the sperm and the egg come together and the egg is fertilised. This union is called a zygote.

Within hours, the microscopic zygote divides over and over to produce multiple cells. Over the period of about five days, the fertilised egg or embryo makes its way to the uterus or womb.

If everything is fine, the embryo embeds itself in the lining of the womb and the woman becomes pregnant.

What is infertility?

Infertility is the inability to get pregnant, despite having regular, unprotected sex for at least a year.

What are the common causes of infertility?

There are a number of causes of infertility, although some infertility cases are unexplained.

The most common causes of infertility in women include:

- Lack of regular ovulation (monthly release of an egg)
- Endometriosis
- Ovarian cysts
- Increasing female age
- Blockage of the fallopian tubes

In men, the most common fertility problem is poor semen quality.

How common is infertility?

One in six couples experience difficulties conceiving a child. About 85% of couples do conceive a child naturally, within the first year of trying. 95% of couples conceive within two years.

However, age is a factor. The chances of getting pregnant are reduced significantly for women over the age of 40.



How often do you need to have sex to conceive?

Having sex every day or every other day gives couples the best chance of getting pregnant. However, as this may not be practical, sex should be timed soon after the end of a woman's period and near the time of ovulation.

What is ovulation?

Ovulation occurs when the ovary releases an egg during menstruation. It is when a woman is most fertile. If the egg is met by a sperm, it may become fertilised and a pregnancy will occur.

If you have regular periods, you should be able to predict this time.

How can we optimise our fertility?

There are many factors which affect fertility.

You can help prevent infertility by making dietary changes, taking steps to reduce stress and by avoiding toxic substances such as drugs, alcohol and tobacco.

Having safe sex is also an important factor. Some sexually transmitted diseases (STDs) can lead to infertility if not properly treated.

When should we go for treatment?

Under normal circumstances, a couple has a 20% chance of conceiving a child each month, if they have sex during the most fertile part of the menstrual cycle.

About 85% of couples do conceive a child within a year.

When considering infertility treatment, age is an important factor – every six months makes a significant difference in terms of your fertility.

- If you are under 35 and have not conceived within one year, then talk to your doctor
- If you are over 35, you should seek medical advice much more quickly – after six months at the most

Research shows that:

- Women are most fertile between the ages of 20 and 24
- At 35 you're half as fertile as when you were at 25
- At 40 you're half as fertile as when you were at 35

Miscarriage risk

The risk of a miscarriage also increases with age. Between 25–29 years old, there is a 10% risk, while the risk between 40–44 is about 34%.

What can I do about recurrent miscarriage?

A recurrent miscarriage is the loss of three or more consecutive pregnancies.

Some immune testing can establish possible causes and treatment options which may be beneficial.

Treatment for autoimmune dysfunction can be provided by the limited use of drugs that suppress the immune system, so that implantation can proceed without interference from the immune system.

Why does fertility decline with increasing age?

At puberty, most women have about 300,000 eggs in their ovaries. For each egg that matures and is ovulated during the menstrual cycle, at least 500 eggs do not mature and are absorbed by the body.

As a woman ages, the eggs in her ovaries also age, making them less fertile.

Men's fertility gradually decreases from the age of 40 but most men can father a child right into their 50s and beyond.

Age is also a risk factor for genetic abnormalities such as chromosomal abnormalities.

Furthermore, gynaecological problems such as pelvic infection, tubal damage, endometriosis and fibroids also tend to increase with age.

Aging affects men too, but to a lesser



degree. It affects sperm and, due to lower libido, the frequency of intercourse. However, there is no age limit at which men are not capable of conceiving a child.

- The sperm are capable of reaching the site of fertilisation within 24–48 hours of their production
- The eggs can be fertilised by the sperm

What is unexplained infertility?

Infertility is considered 'unexplained' if the woman is ovulating regularly and with no obvious medical issues, while the man has normal sperm. In other words, everything appears to be fine yet there is a failure to become pregnant.

Unexplained infertility affects 20–25% of infertile couples.

In the majority of cases, the failure to understand why the infertility is unexplained, is not due to inadequate investigations, but other factors which are impossible to assess using conventional methods.

For example, we need to assess whether:

- The eggs have actually been released at the time of supposed ovulation
- The eggs are deposited into the fallopian tubes

In cases of unexplained infertility, assisted conception in the form of IVF (In Vitro Fertilisation) can be a solution.

When undergoing IVF, a woman's eggs are removed from her body and are mixed with a man's sperm in a laboratory. Once the eggs are fertilised, they are placed back in her body.

At 40 you're half as fertile as when you were at 35.



10 Ways to Boost Your Chances of Conception

1. Stop smoking

Smoking has been linked to infertility and early menopause in women and sperm problems in men, as well as being a factor in premature or low birth-weight babies. Studies show that non-smoking couples were almost twice as likely to achieve a pregnancy as those where the male partner smoked more than five cigarettes per day.

2. Weight management

Women who are overweight or underweight tend to ovulate or release eggs less regularly, therefore maintaining an optimum body weight is important.

3. Healthy diet

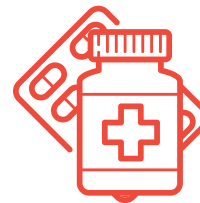
A balanced diet will help ensure a woman's body is healthy enough to conceive and nourish a developing baby. A healthy diet can also help to keep sperm production at optimum levels.

Remember that nutrients are important for a baby's development also. Your approach to nutrition will impact the long-term health and cognitive development of any child that you conceive.

Eat a diet rich in vegetables and fruit – a minimum of five portions daily. Vegetables and fruit are rich in vitamins, minerals and antioxidants to help enhance your chances of conception.

Eat plenty of whole grains and

Take time out from your busy schedule to simply relax.



pulses. Whole grains include oats, whole grain bread, brown rice and whole grain pasta. Pulses include chickpeas, kidney and other beans and lentils. They are rich in B vitamins and other fertility-enhancing nutrients such as zinc and magnesium.

4. Minimise stress

Take time out from your busy schedule to simply relax. Stress can have a negative impact on your relationship, your libido and your ability to conceive.

5. Exercise regularly

Moderate exercise helps you to improve your fitness and to manage your weight and is also proven to decrease stress, as well as helping to improve your mood and your libido.

6. Take vitamin supplements

Crucial nutrients such as zinc, iron and essential fatty acids, often lacking in today's diets are vital in the pre-conception period to optimise both egg and sperm quality and improve overall health.

All women trying for a baby should take 400 mcg of folic acid a day to help protect against conditions such as Spina bifida in the baby. Women should also take vitamin C, vitamin E, zinc and omega-3 fatty acids.

Zinc deficiency has been linked to

a reduced sperm count and it is recommended that men take 30 mg of zinc supplement twice daily. Men should also take vitamin C and selenium.

7. Drink sensibly

Heavy drinking can affect your fertility as well as posing a significant threat of miscarriage. Drinking alcohol can also affect the quality of a man's sperm.

8. Be drugs aware

Some prescription drugs can lessen your chances of conceiving, so if you are taking regular medication and want to try for a baby, talk to your GP about alternatives. Also, avoid all so-called 'recreational' drugs.

9. Men – stay cool

Sperm production takes place at a temperature slightly lower than body temperature. It has been shown that exposure to heat affects sperm quality. Therefore, regular hot baths, saunas and steam rooms should be avoided.

10. Avoid toxins

Evidence shows that men who are regularly exposed to solvents (present in paint, lacquers, adhesives, degreasers etc.) are likely to have reduced sperm count and quality. Take all appropriate safety precautions when handling solvents.



Part 2: Talking to the experts

Making An Appointment



If you are having a problem conceiving a child, you should contact your GP or Sims IVF to discuss it.

To ensure that we have all the details that we need, you are asked to complete a comprehensive and confidential form. This significantly improves your consultant's ability to understand your concerns about infertility, at the first consultation.

If you are unsure of the answers to some questions, don't worry. These questions can be covered more fully at a later stage.

If you would like to talk to a consultant at Sims IVF, you can make an appointment online at www.sims.ie or call us on +353 (01) 208 0710.

Once you register online, you will receive a confidential call from us by telephone shortly after.

Your First Sims IVF Consultation

No obligations, just a listening ear

The normal procedure for a new patient attending Sims IVF is to have an initial consultation with one of our doctors. Their role is to listen to your concerns and gain an understanding of the problems that you are experiencing. There is no obligation on you to go any further.

During a first consultation, the doctor will discuss your medical history with you and ask you a number of questions. It is useful to bring copies of any prior test results that you have had with you, including records of investigations and treatment summaries.

The doctor can then recommend the best options in terms of investigations, tests and potential treatments.

We encourage both partners to attend this first consultation as infertility is a shared condition and you will both want to be involved in all aspects of the decision-making process.

Consultation generally lasts an hour, which gives you the opportunity to ask questions and discuss your concerns with us.

Sims IVF takes a proactive approach to fertility treatment

If you decide to go ahead with testing, you will meet with a fertility nurse who will explain each step of the testing or treatment that has been prescribed by the doctor.

The nurse will also discuss and plan any blood tests or investigations that the doctor requested. Many people referred to Sims IVF have already undergone extensive infertility testing and treatment elsewhere. We will only repeat tests if they are essential.

We can adapt the treatment plan if your tests suggest that we need to – but overall, you can be assured that we take a proactive approach to your treatment from the moment you become a patient at Sims IVF.

Your initial tests

Some of these initial tests may be carried out in-house by Sims IVF. Please note that we adhere to the EU screening guidelines, and we will test you and your partner for major illnesses.

Women are born with their lifetime supply of eggs and they gradually decrease in quantity and quality with age.

Our Female Fertility Profile includes:

- Anti-Müllerian Hormone (AMH)
- AMH has replaced traditional blood tests to ascertain key hormone levels
- Thyroid Stimulating Hormone (TSH)
- Prolactin is a hormone produced in the pituitary gland. An imbalance can impact on fertility
- Saline Infusion Sonography (SIS)
- This identifies the presence of hydrosalpinx (fluid in fallopian tube) or polyps, fibroids or adhesions which may impede implantation and should ideally be removed prior to treatment

Additional tests can be arranged as needed.

Submucous fibroids in the uterine cavity may also affect implantation and it is usually recommended that these are removed surgically prior to treatment. Your doctor may refer you for further assessment if there are fibroids that need to be removed.

Consultants review

Following the initial tests or investigations, an appointment is made for you to speak with your consultant after one month. The doctor will present the results of the tests to you and will recommend a course of treatment including a medication regime.

Other investigations will need to identify physiological issues in women, such as:

- A lack of ovulating or the release of eggs at the right time
- The fallopian tubes can be blocked or damaged, and therefore eggs cannot be picked up and carried along the fallopian tubes to be fertilised
- Problems with the womb lining preventing a fertilised egg from implanting successfully, perhaps due to an immune problem



Factors Affecting the Outcome of Treatment

Age

As with natural conception, the chances of success following any fertility treatment decline with the age of the woman. There is much documentation to show a significant drop in the pregnancy rate for women over the age of 40.

Unfortunately, the risk of miscarriage in this group is higher. Also, the percentage of women having a live birth decreases.

Number of eggs collected and embryo quality

The number of healthy eggs collected and the number of normally fertilised eggs also affect the chances of getting pregnant. The number of embryos available affects the chances of success for transfer and the number transferred.

If only one embryo is available for transfer the chances of success are lower. Transferring more than one embryo can lead to a multiple pregnancy. Approximately 20% of pregnancies following assisted conception are twins.

Ovarian reserve

In a woman with normal menstrual periods, apart from her age, the second most important element that affects an IVF outcome is the ovarian reserve – the number of potential eggs available in the ovary. Typically, this is measured by checking the Anti-Müllerian Hormone (AMH) levels.

The hormone AMH is present in the cells of developing egg sacs and therefore, the level of AMH in blood is a good indicator of the quantity of eggs, though not the quality of them.

AMH operates on a scale from low to high. Women with a reduced ovarian reserve have a lower, but reasonable chance, of achieving live birth.

Multiple pregnancy

One of the complications of assisted reproduction is the increased incidence of multiple pregnancy. Concerns about multiple pregnancy arise because it is associated with a greater incidence of complications.

Problems are more commonly seen in triplet or higher order multiple pregnancies but may also occur with twin pregnancies. Because of the greater chance of pre-term labour and delivery, there is an increased risk of babies being born before they are mature enough to survive and a greater risk of complications associated with prematurity if they do.

The maximum number of embryos transferred is generally two and therefore higher order multiple pregnancies are not common. Women aged 37 years or under are usually advised to have one embryo transferred.

When two embryos are transferred in this younger group of patients, the overall chances of success are not significantly increased but the chances of multiple pregnancy are greater.

If a woman conceives with a multiple pregnancy, careful antenatal management is advised.

Miscarriage

The incidence of miscarriage in women who conceive naturally is approximately 25%. With assisted reproduction treatment this statistic is not significantly different, although in women over 40 there is an increased risk. Pregnancies should be monitored to ensure that it is proceeding normally.

Ectopic pregnancy

In a normal pregnancy, the fertilised egg attaches to the lining of the uterus. In an ectopic pregnancy the fertilised egg attaches somewhere other than the uterus, most commonly in the fallopian tubes.



The incidence of ectopic pregnancy with assisted conception treatment is approximately 2.5%.

It is potentially a serious condition but will often be detected very early in the pregnancy by an ultrasound scan. It is recommended that a detailed vaginal ultrasound scan be carried out three weeks after the confirmation of pregnancy.

The more common female fertility problems

Ovulatory problems

Ovulatory problems are the most common cause of female infertility and occur due to hormonal imbalance. This means that you ovulate infrequently, or not at all.

Ovulatory problems can be caused by:

- Stress
- Excess weight loss or weight gain
- Excessive production of prolactin (the hormone that stimulates milk production in the breasts)
- Polycystic ovarian disease

Polycystic Ovarian Syndrome (PCOS)

Polycystic Ovarian Syndrome (PCOS) is a condition that affects a woman's hormone levels. About 20% of women have PCOS.

Symptoms of PCOS include:

- Irregular or no periods – and which are often heavy and prolonged when they do arrive
- Overweight – craving mid-meal snacks
- Tiredness
- Pelvic pain
- Increased hair growth on the face and body

The causes of PCOS include:

- High glycaemic diet as many PCOS patients are also insulin resistant
- Excess levels of the hormone androgen

Treatment usually involves:

- A practical diet
- If required, the use of drugs to correct the hormonal imbalance and to stimulate ovulation
- Losing excess weight and exercising
- Changing to a low glycaemic diet may help to improve the hormone imbalance
- Medication can be used to increase sensitivity to insulin

Patients with PCOS are often successfully treated, though there can be complications associated with either over or under stimulation of the ovaries.

Endometriosis

Endometriosis is where cells similar to those in the lining of the uterus grow elsewhere in the body, such as the fallopian tubes and the ovaries.

When endometriosis occurs in your reproductive organs, the egg may be prevented from traveling down the fallopian tube to meet the sperm and fertilisation may not occur.

Endometrial tissue located outside the womb can cause inflammation and if nerve tissue is affected, pelvic pain may result. Painful periods and pain during intercourse are further symptoms.

The diagnosis of endometriosis cannot be made from symptoms alone as some women have no symptoms, and there may be other reasons for symptoms such as pelvic pain.

A surgical procedure called a laparoscopy is the only definitive way to diagnose endometriosis. It allows direct visualisation and the biopsy of areas suspected of having endometriosis. It is carried out by inserting a small telescope through an incision close to the naval.

Many women who have endometriosis can conceive without any difficulty; however, some women do have difficulty getting pregnant.

IVF is an appropriate treatment for infertility associated with endometriosis where other methods have failed.

Tubal disease

Tubal disease is a condition in which one or more of the fallopian tubes is blocked or damaged. This prevents an egg from reaching the womb, causing infertility.

It accounts for up to 25% of all infertility cases.

Typically, it is caused by:

- Pelvic infection as a result of pelvic inflammatory disease (PID) or appendicitis
- Pelvic endometriosis
- Scar tissue that forms after pelvic surgery

A diagnosis of tubal disease can be made in a number of ways, such as with a laparoscopy and hydrotubation. With this procedure, a camera is inserted through the belly button to inspect the pelvis as dye is passed through the tubes. Blockage or swelling can then be confirmed. The most common cause of blocked tubes is infection.

A less invasive procedure is the HyCoSy test, which stands for hysterosalpingo contrast sonography. It involves injecting harmless dye into the fallopian tubes which allows a sonographer to clearly see the tubes on the ultrasound scan.

Anti-Müllerian Hormone (AMH)

Women are born with their lifetime supply of eggs and they gradually decrease in quantity and quality with age.

As the hormone AMH is present in the cells of developing egg sacs, the level of AMH in blood is a good indicator of the quantity of eggs, though not the quality of them.

AMH involves a single blood test which can be performed at any stage in the menstrual cycle. We can analyse your AMH levels in our on-site laboratory.

Other relevant hormones may be measured in parallel with AMH - these are thyroid stimulation hormone (TSH) and prolactin. Together these are known as your AMH profile.

Male fertility problems

Typically, male infertility occurs in two situations. They are:

- When a man does not produce enough sperm, which is known as a low sperm count
- The sperm are not of a sufficiently high quality to fertilise the egg

There may also be problems with the tubes that carry sperm resulting in no sperm in the semen, or ejaculate. This condition is called azoospermia.

Furthermore, a man may find it difficult to get an erection, or have trouble ejaculating.

Semen analysis

A semen analysis is an important test for male infertility. Any abnormalities are primarily due to a defect in sperm production by the testicles.

The causes are difficult to ascertain, but may be associated with previous infections or surgery including undescended testis or hernia. Abnormalities may also be caused by excessive drinking.

Also, certain drugs, radiation and radiotherapy may have a detrimental effect on sperm production. The presence of a varicocele (increase in the blood flow around the testicles) may lead to a rise in the temperature around the testicles, thus affecting sperm production and motility, or movement.

A normal assessment should show a sperm count of more than 20 million sperm per ml with at least 50% of the sperm actively moving and more than 35% of the sperm with a normal shape.

Physiological issues

When a man ejaculates, the semen contains sperm as well as a number of bodily fluids. However, sometimes it lacks sperm. This absence of sperm may be due to a number of reasons, including:

- An obstruction at the level of the vas deferens, epididymis, or even at the level of the testes
- A bilateral congenital absence of the vas
- A testicular failure which leads to sperm not being produced. This may be the result of a chromosomal disorder or previous infections such as mumps
- The failure of descent of the testes into the scrotum

On rare occasions there may be anti-sperm antibodies in the semen which impair their motility. This may occur following a reversal of a vasectomy or other surgery on the male genitals. It may also be related to previous infections or injury.

Your semen sample will be tested for sperm antibodies during the analysis.

Sperm DNA fragmentation testing

In order to have a successful fertilisation of the egg and normal embryo development, the DNA or the genetic integrity of the sperm is vital.

If damaged sperm is accepted into an egg, poor quality embryos or a miscarriage can result. A Sperm Chromatin Structure Assay (SCSA) test can reveal a high susceptibility toward DNA damage and fragmentation, or abnormal genetic material in the sperm. A SCSA test is different to regular semen analysis.

In cases of a severe deficit in semen quality genetic testing should be considered.

A semen analysis is an important test for male infertility.



Part 3:

Infertility Treatments & Supports

There are many treatments and supports that are available to help with infertility. They include:

- Ovulation induction & cycle monitoring
- Intra-uterine Insemination (IUI) - using partner's sperm or donor sperm
- In Vitro Fertilisation (IVF)
- Intracytoplasmic Sperm Injection (ICSI)
- Intracytoplasmic Morphologically-Selected Sperm Injection (IMSI)
- Pre-Genetic Testing (PGS)
- Embryoscope
- Blastocyst Culture & transfer
- Donor sperm
- Egg donation
- Double donation
- Shared motherhood
- Embryo freezing & replacement
- Semen freezing
- Egg freezing
- Surgical Sperm Retrieval (TESE)
- Assisted hatching
- Reproductive immunology

The Following is a Review of Each of the Treatments in More Detail:

IMPORTANT

Ovarian Hyperstimulation Syndrome (OHSS)

While receiving fertility injections, some women experience abdominal bloating, breast tenderness, increase in vaginal secretions and some abdominal discomfort may be noted.

The majority of women do not experience any effects, but if they do they are usually short lived and will cease when the treatment is finished. In a few cases some patients will over respond to the fertility injections and produce too many follicles, or immature eggs.

If this happens and treatment is continued there is a risk of developing Ovarian Hyperstimulation Syndrome (OHSS). This is a

complication of ovarian stimulation arising in 5% of women undergoing fertility treatment.

OHSS causes fluid in the abdomen. It is due to over sensitivity of the ovaries to the fertility drugs and is more frequently associated with women who suffer from Polycystic Ovarian Disease (PCOS) and / or women who are thin and young.

However, anyone can experience OHSS and it can be extremely serious if left untreated. Therefore, you will be asked by your consultant to watch out for certain signs and to report immediately, if you do encounter any symptoms of OHSS.

Ovulation Induction & Cycle Monitoring

Ovulation induction uses medications to stimulate the development of one or more follicles (immature eggs) in a woman's ovaries.

Women that have irregular menstrual cycles or cannot ovulate may be treated with ovulation induction as they do not regularly develop mature follicles themselves.

Pelvic ultrasound scans are used to access the lining of the endometrium, or womb, to determine how the follicles are developing. Blood tests may also be carried out to measure hormone levels and help to determine when a woman is most likely to ovulate, which is your most fertile time.

Ovulation induction cycles are followed by a HCG injection. HCG is a hormone which supports the normal development of an egg

and helps to induce ovulation.

Timed sexual intercourse or intra-uterine insemination (IUI) can then take place at a given time.

Are there any side effects of ovulation induction?

The side effects include:

- Feeling bloated
- Lower abdominal discomfort
- Headaches and fatigue

Careful monitoring removes the risk of multiple births by advising the patient to abstain from sexual intercourse where indicated.

Intra-Uterine Insemination (IUI)

Intra-uterine Insemination (IUI) involves placing a sample of prepared sperm inside the uterus around the time of ovulation to facilitate fertilisation.

Who is IUI suitable for?

IUI is recommended under the following circumstances:

- The woman has healthy fallopian tubes, preferably confirmed by saline infusion sonography
- If the man's semen analysis is normal

Also, it may be useful for women who have cervical mucus hostility which refers to possible problems with cervical fluids.

In some cases, IUI is useful for unexplained infertility.

What does IUI involve?

On the day of the planned insemination, the partner provides a semen sample. A concentrated preparation of motile, or moving, sperm is extracted from the sample in the laboratory.

The sperm is placed into the uterine cavity using a fine catheter inserted through the cervix. In general IUI is a

painless procedure, which takes only a few minutes.

The chance of success with IUI is enhanced if insemination is combined with ovulation induction using small doses of fertility drugs. These are taken by the woman, and the development of the follicles on the ovary is monitored with ultrasound.

The insemination is timed to take place 36–40 hours after the administration of another hormone injection which triggers ovulation.

IUI using donor sperm

IUI is also carried out using the sperm of a donor in couples where there is a significant male factor infertility involved, in same sex couples and single women.

Is IUI successful?

For some couples, IUI is a very effective form of treatment provided that the man's sperm and the woman's tubes are healthy. The success rate for IUI is generally around 10–15% per cycle.

Please refer to our website www.sims.ie for more information on results.

In some cases, IUI is useful for unexplained infertility.



In Vitro Fertilisation (IVF)

The term In Vitro Fertilisation (IVF) literally means fertilisation 'in glass' and it refers to the process where a woman's eggs are fertilised outside of her body in the laboratory.

The resulting embryos are then transferred back into the uterus a few days later.

Who is IVF suitable for?

IVF is specifically recommended for women with absent, blocked or damaged fallopian tubes. It is also often used in cases of unexplained infertility and can be used in combination with Intracytoplasmic Sperm Injection (ICSI) in severe male-factor infertility.

ICSI is a variant of IVF. It is when single live sperms are injected directly into ripe eggs.

There are four steps involved in the IVF cycle:

1. Stimulation of the ovaries to encourage development and maturation of the eggs
2. Retrieval of the eggs
3. Fertilisation of the eggs
4. Transfer of the embryos back into the uterus

Stimulation of the ovaries to encourage development and maturation of the eggs

Under the care of a consultant gynaecologist, the woman is given fertility medications to stimulate her ovaries to produce many follicles. Follicles are the small fluid-filled sacs which develop on the ovaries, each of which will hopefully contain an egg.

The term In Vitro Fertilisation (IVF) literally means fertilisation 'in glass'

The number and size of the developing follicles is measured by trans-vaginal ultrasound scans. The exact number of follicles which develop varies between patients, but the average is about 10.

The final preparation for egg retrieval involves a hormone injection which mimics the natural trigger for ovulation. Egg retrieval will take place 36-38 hours after this injection.

Retrieval of the eggs

Egg retrieval is a minor theatre procedure which is carried out under local anaesthesia.

A trans-vaginal ultrasound probe is used to visualise the ovaries and a needle attached to the probe is passed through the vaginal wall into the follicles.

Each follicle is examined in the laboratory for the presence of an egg. After successful identification, the eggs are transferred into Petri dishes in an incubator.

Fertilisation of the eggs and culture of the embryos

While the egg retrieval is proceeding, the sperm is also prepared. From the semen sample, the best sperm is extracted in the laboratory.

This sperm preparation (containing approximately 150,000 sperm) is added to the dishes containing the eggs, and they are incubated together overnight.

In some couples, ICSI, an alternative form of insemination, is required. It is a laboratory procedure whereby a single sperm is picked up with a glass needle and injected into an egg.

Fertilised eggs are cultured in the IVF laboratory until day 3, at which time the best 1-3 embryos are selected and transferred back into the woman's uterus.

For some patients, a blastocyst cycle may be recommended, in which case embryo culture is extended to day 5. A blastocyst cycle refers to the embryo 5-6 days after fertilisation.



Any additional embryos that are not transferred on day 5 can be frozen for future use.

Embryo transfer

The embryos are placed into the uterine cavity by means of a fine catheter inserted through the cervix. The correct positioning of the embryos is confirmed by abdominal ultrasound.

Embryo transfer is a simple theatre procedure that does not routinely require anaesthesia.

Can you transfer more than one embryo?

During IVF treatment there is an increased chance of multiple pregnancies if more than one embryo is transferred. Research has shown that limiting the number of embryos transferred to two reduces the chances of

multiple pregnancies without causing a significant decrease in overall pregnancy rate.

Therefore, it is recommended to transfer a single embryo. In some cases, following a discussion with your consultant, it may be appropriate to transfer more than one embryo.

The maximum number of embryos transferred is two.

Embryo grading

After insemination by IVF or ICSI, fertilised eggs are then routinely cultured in the laboratory for three days before being transferred back into the woman's uterus.

However, before the transfer, the embryos are graded in order to select the ones with the best chance of implanting in the uterus and forming a healthy baby.



The main criteria used to grade embryos are:

1. The number of cells.

Embryos showing good development will generally have six to eight cells after three days of growth. Embryos with fewer cells may still be good, but they are less likely to continue normal development.

2. The amount of fragmentation.

Fragmentation describes the way that cells of an embryo split off into fragments. A small amount of fragmentation is normal, but excessive fragmentation suggests that the embryo will have a lower chance of continuing normal development.

How successful is IVF?

Please refer to our website www.sims.ie for information on results.

Intracytoplasmic Sperm Injection (ICSI)

ICSI is a laboratory procedure whereby a single sperm is picked up with a glass needle and injected into an egg.

It is very similar to IVF in that gametes (eggs and sperm) are collected from each partner. However, the difference between the two procedures is the method of achieving fertilisation.

In conventional IVF, the eggs and sperm are mixed together in a Petri dish and the sperm fertilises the egg naturally. However, to have a chance that this will occur, large numbers of actively motile normal sperm are required.

For many couples, the number of suitable sperm available may be limited or there may be other factors preventing fertilisation. Therefore conventional IVF is not an option, yet ICSI has provided hope for these couples.

Very few sperm are required and the ability of the sperm to penetrate the egg is no longer important as this has been assisted by ICSI.

ICSI does not guarantee that fertilisation will occur as the normal cellular events of fertilisation still need to happen once the sperm has been placed in the egg.

Who is ICSI suitable for?

The following are the circumstances when ICSI is suitable:

- Low sperm count
- Sperm cannot move properly or are in other ways abnormal
- When sperm has been retrieved surgically from the epididymis or the testes (TESE), from urine or following electro-ejaculation
- When there are high levels of antibodies in the semen
- When there has been a previous fertilisation failure using conventional IVF

What does ICSI involve?

From a patient perspective, undergoing

an ICSI treatment cycle is the same as a conventional IVF cycle.

There are four steps:

1. Stimulation of the ovaries to encourage development and maturation of the eggs
2. Retrieval of the eggs
3. Fertilisation of the eggs and culture of the embryos
4. Transfer of the embryos back into the uterus

How successful is ICSI?

Please refer to our website www.sims.ie for more information on results.

Intracytoplasmic Morphologically-Selected Sperm Injection (IMSI)

IMSI is a technique that allows a better selection of the sperm that will be micro-injected. It uses ultra-high magnification to allow greater visualisation of the structure of the sperm.

IMSI is suitable for patients with recurrent miscarriage or those where sperm morphology – or the shape – is particularly poor.

Managing the two-week transfer wait

Following your fertilized egg transfer, there is a two-week transfer wait. This two-week time period – between transfer and test date – has been described by some of our patients as a difficult and stressful time.

Our advice, no matter what the outcome which may be influenced by so many factors, is to take a positive – this is going to work – approach. Your primary goal is to avoid stress, negative thoughts and excessive worry. This two-week window is a time for calm, positivity and encouragement.

While science can't absolutely prove that thinking positively will ensure a baby arrives, overcoming your negative thoughts and promoting a positive mindset is certainly helpful.

Preimplantation Genetic Screening (PGS)

What is PGS?

Preimplantation Genetic Screening (PGS) is a specialised diagnostic technique that can be used to test embryos for a chromosomal abnormality.

This technique offers an earlier test than alternative ante-natal screening tests which are normally offered between 11-14 weeks of pregnancy.

Embryoscope

What is an Embryoscope?

Embryoscope Plus is a new generation incubator that uses time-lapse technology to allow us to continuously observe your embryos during their development undisturbed.

The Embryoscope incubator has a built-in camera and microscope that takes an image of your embryos every 10 minutes.

As a result, time-lapse videos of individual embryos are generated over the two to five days they remain in the incubator.

Your embryologist uses advanced software to look at the time-lapse movies of your embryos to select the best ones for transfer and freezing.

This technology allows embryologists to observe key features of embryo development that assist in the selection of embryos more likely to result in pregnancy.



Blastocyst Culture & Transfer

What is a blastocyst?

The blastocyst is a human embryo five to six days after fertilisation. It must reach this stage before it can be implanted in the uterus.

The structure of the blastocyst is more complex than earlier embryo stages because as well as increasing in cell number, the cells have become organised into two types:

1. The trophoblast, whose main role is in the implantation into the uterine lining
2. The inner cell mass which will give rise to the foetus itself

The diagram on the opposite page shows blastocyst formation in the female body.

The egg is fertilised following ovulation and the embryo goes on to divide as it travels along the fallopian tube. Blastocyst formation occurs as the embryo reaches the uterus.

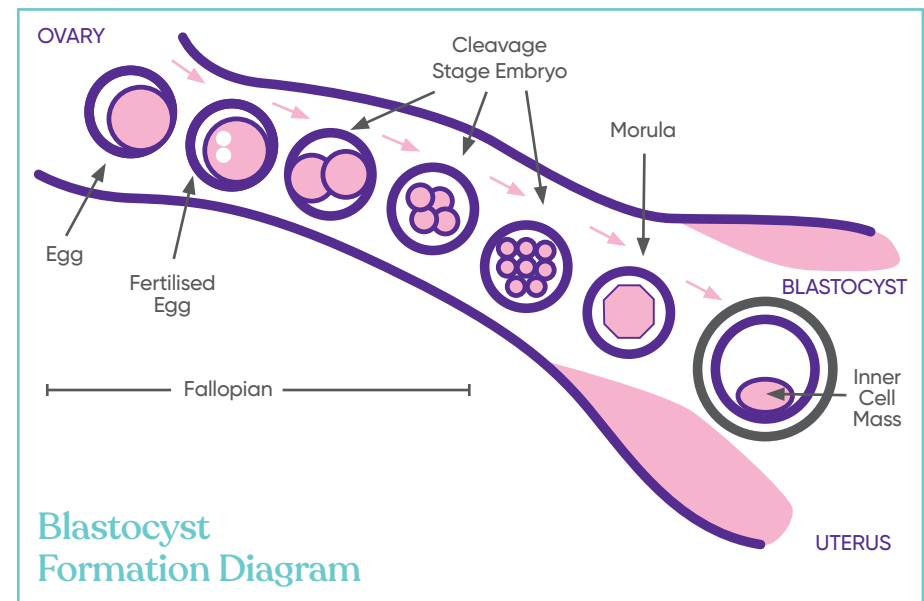
Why is blastocyst culture so important in an IVF setting?

Blastocyst is standard practice and the transfer involves extending the period that the embryos are cultured in the laboratory to five or six days.

Why extend the time that the embryos are cultured in the laboratory?

As many embryos are destined to fail at the early stages, the extended culture allows us to identify which (if any) of a group of embryos have the best potential for implantation. This is done by identifying those which form a normal blastocyst in culture.

Transferring embryos at the blastocyst stage also provides a better co-ordination between the embryo and the uterus by putting the embryo back at the optimum time.



What are the benefits of blastocyst culture?

Typically, if you have a normal blastocyst for transfer on day 5, the chances of pregnancy are higher than if you have embryos transferred on day 3.

However, the chances of having no embryos for transfer at all are also higher.

Are there any benefits in younger patients in whom IVF is likely to work anyway?

As blastocyst culture helps to determine which embryos have the best chance of being implanted and we can potentially reduce the number of embryos that we replace into the uterus. This will reduce the risk of a multiple pregnancy.

In women under 35, without female factor infertility, we can offer single embryo transfer which reduces the risk of both twins, triplets and quads.

Are there any benefits for patients over 37?

We think so as we can avoid the need to transfer three embryos on day 3, by

transferring two blastocysts on day 5. The small risk of triplets can be minimised without affecting the pregnancy rate.

- 78% of those couples had blastocysts for transfer
- 42% of those patients achieved an ongoing pregnancy

However:

- The extra culture time required adds to both the financial and emotional cost of treatment. Many couples find the wait over this period very difficult
- It is possible that you may not have an embryo transfer at all – about 20% of the patients we have treated to date with blastocyst culture have not reached embryo transfer
- It is less likely that there will be 'spare' embryos available for freezing
- There is a slightly increased risk of identical twins reported with blastocyst culture

Sperm Donation

Sims IVF donor program assists anyone needing donor sperm in order to achieve a pregnancy.

You might consider using a sperm donor if the male partner in the relationship has no sperm or carries a genetic condition; you are in a same sex relationship; or you are a single woman.

As recommended by the doctor and depending on other factors involved, donor sperm may be used in combination with IUI, IVF or ICSI as appropriate.

Who are the sperm donors?

Donors are ordinary, physically healthy men from a broad cross section of society whose ages range from 18–50 years. Most of them are students from institutions of higher education. They receive only a small remuneration for their donation and it is believed that they are genuine in their wish to help others.

Genetic screening

This involves a full medical assessment and a medical history covering grandparents and any descendants. The medical history places particular emphasis on any heritable conditions that may be present in the family and all donors are karyotyped.

In specific situations, tests for other heritable diseases may be carried out (sickle cell disease, thalassaemia, Tay Sachs, and cystic fibrosis).

Infectious diseases

All donors are tested for chlamydia, HIV-I and -II, HTLV-I, Hep B surface antigen (HBsAg), hepatitis C (HCV-Ab), syphilis, and gonorrhoea. These tests are carried out once every three months and all semen samples are quarantined for six months before they can be used to ensure as far as possible that the samples were negative for these diseases at the time of donation.

What information is available about the donor?

The majority of the donor sperm that we use in Sims IVF is obtained from a Danish donor bank. Regulations in Denmark require the donor bank to keep, at a minimum, the following information about donors on file:

- Colour of eyes
- Colour of hair
- Height
- Weight
- Type of build
- Race
- Peculiarities of appearance (e.g. complexion)
- Age
- Education/occupation
- Blood type
- Karyotyping
- Psychological profile
- Infectious screening results

Donor sperm may be used in combination with IUI, IVF or ICSI as appropriate.



Extended profile donors have much more detail available on file concerning their characteristics and personality. This is only available to you if you request an extended profile donor which entails an additional cost.

Donor Legislation

Patients using donor eggs or sperm procured after May 5 2020 will have to be compliant with the new legislation in terms of the donor being identifiable.

Our (recipient) patient details will have to be given to the Department of Health to be held on the national register, irrespective of whether the donor gametes or embryos were created before the date of enactment or whether the gametes or embryos were anonymously or non-anonymously procured.

These recipient details will not be retained by the Department of Health if the IUI procedure or embryo transfer does not result in a pregnancy. They will be held and added to if a child is born from the procedure.

This is a link to the legislation that we have to adhere to is here <http://www.irishstatutebook.ie/eli/2015/act/9/enacted/en/html>

You will be required to sign an additional consent when undergoing an IUI or having a transfer after the enactment of the legislation.

What happens if we need to use donor sperm?

If treatment using donor sperm has been recommended and all issues have been discussed and considered with the doctor and the counsellor, suitable donor sperm is selected for the couple or individual. The physical characteristics of the patient(s) are recorded. The hair colour, eye colour, height, build, and blood group are noted and these are used to pick the closest matching donor or based on characteristics you find acceptable.

If we have a child using donor sperm can the same donor be used for more treatment?

Yes, in most cases reservation of donor sperm

for future siblings is possible. As soon as you know you have an ongoing pregnancy, if there is still some of that same donor available at the donor bank, we advise you to contact the clinic in order for us to advise you on how to reserve some for future treatment.

To find out more about using donor sperm please book an appointment with a Sims IVF fertility specialist or contact us.

Double donation

This is the process in which both donor egg and donor sperm are used to create an embryo(s).

This programme is designed for heterosexual couples who have fertility issues with both parties, same sex female couples and single females that are unable to use their own eggs.

This programme will help many couples and single women who have struggled with conception in the past.

With over 20 years of experience in IVF and 15 in donation programmes – significantly more than any other clinic in Ireland – we offer a highly streamlined and affordable programme.

This programme only uses 'identifiable donors'. This means that any child resulting from this treatment will have the right to access identifying information about their donor from the age of 18.

However, identifying information about the donor will not be made available to the recipient(s).

Donor selection:

- Egg donor: Choice of two donors matched with your characteristics and preferences. Recipient photos taken to assist this process
- Five donors can be chosen from Cryos website. Final donor selection carried out by Sims IVF



Who are the egg donors?

All our donors are already mothers, and are between 18 and 34 years old. In addition, all donors undergo stringent tests to ensure their health and suitability.

You get a choice of two donors, carefully preselected based on a detailed profile that includes physical traits, family history, education, hobbies, and personality.

Who are the sperm donors?

Donors are ordinary, physically healthy men from a broad cross section of society whose ages range from 18–50 years. Most of them are students from institutions of higher education.

During the donor sperm selection the physical characteristics of the patient(s) are recorded. The hair colour, eye colour, height, build, and blood group are noted and these are used to pick the closest matching donor to your characteristics or preferences.

To find out more about our double donation program, how it works and the costs involved please contact us.



Egg Donation Programme

Our first experience with donor egg programmes was in 1999 when we began to provide satellite facilities for couples who were availing of egg donation elsewhere. In 2002 we started our own egg donation programme utilising Irish donors. We soon discovered that the supply of egg donors was far smaller than the demand from potential recipients which resulted in long and agonising waiting lists.

Now, Irish couples no longer need to travel to avail of egg donation programmes, because we provide an affordable, reputable, and available in-Ireland solution.

Our competitively priced egg donation programmes offers world-class results as well as a high level of support. You get a dedicated medical team and a top-class counselling service to help you through the egg donor decision making and IVF treatment process.

When is egg donation an option?

Our Egg Donation programmes are an option for women who have:

- Primary ovarian failure
- Premature menopause (before the age of 40)
- Ovarian damage following surgery, radiation or chemotherapy
- An inheritable genetic disorder like haemophilia
- Repeated failure to respond to ovarian stimulation in an IVF programme
- History of recurrent miscarriage

Women who do not produce eggs or those with poor quality eggs may be advised to seek treatment with donated eggs. Our standard policy is to offer donation to women less than 50 years of age.

Egg donation has become an increasingly popular option because it has higher success rates than IVF cycles using the woman's own eggs. Egg donation also allows for strong biological and developmental relationships within the family.

This is because donor eggs are fertilised with the male partner's own sperm through ICSI, matured to the embryonic stage and then placed in the partner's uterus. This provides her with the same experience of pregnancy as natural conception.

About the Donors

Potential egg donors come forward voluntarily because of a desire to help others. There is no incentive other than compensation for expense, time, inconvenience and risks involved in the procedure.

Egg donors must be fit and healthy and between the ages of 18 and 35 years, unless there are exceptional circumstances, such as 'known donation'. They must have proven fertility.

The donors are screened for problems relating to family health history and for transmissible infectious diseases and have consented to their eggs being donated. Each donor goes through a triple testing regime.

How Donor Eggs are Collected and Transferred

Eggs are collected by the means of 'follicular aspiration' or egg retrieval.

This is a transvaginal ultrasound-guided procedure in which eggs are retrieved from the follicles. It involves the introduction of a specially designed needle through the vaginal wall under local anaesthesia and intravenous sedation.

All the eggs are inseminated with the sperm from the partner or donor. If fertilisation takes place, all of the fertilised eggs or zygotes are cryopreserved.

The zygotes are then brought to Sims IVF to be thawed and grown for between 4 and 5 days after which the embryo(s) are either placed into the uterus of the female recipient or they are cryopreserved for her future use, or both.

Choosing your Egg Donor

As a recipient, you can choose your donor from a pool of donors. All donors profiled have their own children and so have proven fertility. The eggs that are donated for your particular cycle are exclusively reserved for you as the recipient.

All treatment is confidential. When you, as an individual or part of a couple, receive the eggs, you will not have access to the identity of person who donated those eggs. It is, however, a statutory requirement that the names of all donors and recipients are recorded and held by Sims IVF. The names are not available to either party.

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This programme only uses 'identifiable donors'. This means that any child resulting from this treatment will have the right to access identifying information about their donor from the age of 18.

However, identifying information about the donor will not be made available to the recipient(s).



This programme will help many couples and single women who have struggled with conception in the past.

What is Shared Motherhood?

Shared Motherhood or Reciprocal Donation is where the eggs of one partner are used in an IVF cycle to create embryos that are then transferred into the other partner, with the effect that one partner is the birth mother and the other partner is the genetic mother. The embryos are created using donor sperm

A number of same-sex couples choose to egg-share and we can facilitate this process. For many couples this is a beautiful process that allows both parents to have a unique bond to the child.

Embryo freezing and replacement

Embryo freezing (cryopreservation) is the process of preserving good quality embryos for future use. When undergoing IVF or ICSI, a woman's ovaries are stimulated to produce many eggs. Following fertilisation and embryo culture, the best embryos are selected for embryo transfer.

For about 50% of couples, there will also be good embryos which will not be transferred. These embryos can be frozen at this point for future use.

Embryos can be safely stored in liquid nitrogen for extended periods.

What are the benefits of embryo freezing?

The main benefit is the option to have frozen embryos thawed and transferred to the woman's uterus in the future without having to undergo stimulation of the ovaries or egg retrieval. This is called the frozen embryo transfer cycle.

It is also possible that there may be enough frozen embryos for more than one subsequent cycle.

What does a frozen embryo transfer cycle actually involve?

Typically, the woman's natural cycle will be monitored by ultrasound to assess the development of the lining of the uterus and to determine the timing of ovulation and hence embryo transfer.

In other cases, depending on the woman's history, a more hormonally controlled cycle may be warranted.

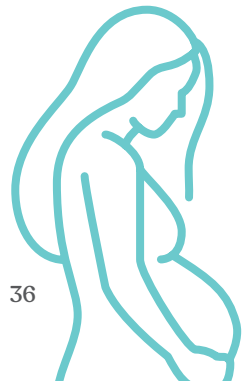
Will there be enough frozen embryos for more than one subsequent cycle?

Approximately 70% of the frozen embryos will survive the thawing process.

However, this varies between patients and it is possible that none of the embryos will survive the freezing and thawing process.

How successful are cycles involving the transfer of frozen embryos?

Frozen embryos have a slightly lower chance of implanting than fresh embryos. This is because, in general, the best embryos in a group will already have been transferred on the fresh embryo transfer.





Semen freezing

Semen freezing preserves sperm for future use.

It is useful for a man who finds it difficult to ejaculate on demand and may result in an inability to produce a sample on the day of egg collection. Also, treatments such as chemotherapy and radiotherapy can affect your sperm production; sometimes this is temporary but in other cases it may be permanent.

We collect samples in a private room in the clinic, so our scientists can prepare and freeze the sperm as soon as possible.

The quality of the semen is reduced after freezing, so if possible, fresh samples are preferred on the day required.

Social Egg freezing

According to the World Health Organization (WHO) one in six people experience fertility challenges.

The reason for this is that female fertility reaches a peak in the early 20s and begins to decline significantly from age 30 onwards.

- Women are most fertile between the ages of 20 and 24
- At 35, you're half as fertile as you were at 25
- At 40 you're half as fertile as you were at 35

We collect samples in the clinic, so our scientists can prepare and freeze the sperm as soon as possible.

A woman's ovaries age in the same way that normal aging affects all of her organs and tissues. Most women have about 300,000 eggs in their ovaries at puberty. For each egg that matures and is released or ovulated during the menstrual cycle, at least 500 eggs do not mature and are absorbed by the body.

As a woman ages, the remaining eggs in her ovaries also age, making them less capable of fertilisation and their embryos less capable of implanting.

Age is also associated with a higher risk of genetic abnormalities such as chromosomal abnormalities. The risk of a chromosomal abnormality in a woman aged 20 years is one in 500 while the risk in a woman aged 45 is one in 20.

Testicular Sperm Extraction (TESE)

What is TESE?

Testicular sperm extraction (TESE) is a surgical sperm retrieval procedure used in fertility treatment for men who have no sperm in their semen.

Who is TESE suitable for?

TESE is useful for men with both obstructive and non-obstructive azoospermia, which is the absence of sperm in the semen.

A lack of sperm in the ejaculate is because either there is a blockage in the route between the testes and ejaculation or because there is a partial or complete failure in sperm production in the testes.

What does TESE involve?

TESE is a minor theatre procedure carried out on an outpatient basis under local anaesthesia.

Sperm are retrieved from the testes and can be used to achieve fertilisation of eggs in the laboratory. However, because the numbers of sperm retrieved are often very low, it is necessary to combine TESE with ICSI.

When is TESE carried out?

In consultation with the urologist, the doctor may advise that TESE is carried out in advance

of any fertility treatment to confirm that sperm production is occurring.

Once it has been confirmed that sperm production is occurring, the TESE procedure is repeated on the day of the egg retrieval and the fresh sample used for ICSI.

Providing that there are suitable numbers of sperm present, the sample can sometimes be frozen for use in future treatment cycles.

Assisted hatching

During the first five to seven days of development, the embryo is surrounded and protected by an outer shell called the zona pellucida. In normal circumstances, when the embryo reaches the uterus, the zona pellucida partially dissolves and the embryo hatches out, allowing it to implant in the uterus.

Assisted hatching is a laboratory technique whereby the outer shell of the embryo is artificially weakened by making a small hole in the zona pellucida.

It is carried out before the embryos are replaced in the uterus and helps the embryo to hatch from the zona pellucida.

What does assisted hatching involve?

Assisted hatching is carried out in a laboratory using a high-powered microscope. A small slit is made in the zona pellucida using a very fine needle or laser, and when it is returned to the uterus, the embryo can hatch through this opening and implant naturally.

Who is assisted hatching suitable for?

Assisted hatching is generally recommended in the following circumstances:

- The woman is aged 35 years or older
- The woman has high follicle-stimulating hormone (FSH) levels
- Couples who have failed to get pregnant following previous IVF cycles
- Couples where a distinct thickening of the zona pellucida is noted by the embryologist
- Frozen embryo replacements







Part 4: The support and resources you need

Online Patient Resource Area

Our online Patient Resource Area gives you guidance through your treatment. It is full of useful information including frequently asked questions, video demonstrations on how to take medication injections and any forms that you need to fill out.

The Patient Resource Area is unique to patients of Sims IVF and was developed based on patient feedback and insights.

Counselling Support

We have a full-time resident counselling psychotherapist available to provide emotional and psychological support, particularly during any challenging times that may occur in your treatment process. Our fully accredited (IACP and BACP) and experienced therapist provides Cognitive Behavioural Therapy and Integrative Counselling sessions to individuals and couples who feel they may benefit from additional assistance before, during or after their treatment.

We also have a number of clinics each month to help those who need them to focus on and address issues such as nutrition and diet, psycho-sexual problems, and stress.

Referral by your GP or Gynaecologist

If you have been referred to Sims IVF by your doctor or gynaecologist, it is our policy to keep them informed of your progress. If not, we will stay in contact with your GP, unless it is your express wish not to. We believe that you ought to be given as much support as possible when undergoing fertility treatment and that your doctor can help you to manage your treatment.

Medications and Specialist Pharmacies

Once you have agreed to initiate treatment, you will be given a prescription for medications. We recommend that you procure your medication from specialist pharmacies with specific training and expertise in IVF and fertility medication.

Research carried out clearly shows that dealing with a pharmacy that is experienced in the area of prescribed fertility medication can assist in the success of the treatment.

The reasons for this are simple: a pharmacy that is well briefed on the types and stock levels of medication required and the issues involved and the back-up service needed for patients will deliver a better service to our patients.

This is important for patient safety and also to make sure that your medication is available to you when you need it. Of course, patients may use a pharmacy of choice unless the consultant specifically recommends otherwise for professional reasons.

We can also give you names of pharmacies that provide a 24/7 service to support your needs.

The Patient Resource Area is unique to patients of Sims IVF and was developed based on patient feedback and insights.

Sims IVF is experienced in working closely with endocrinologists and other specialist doctors.

Working with your Medical Specialists

Where patients have health issues or specific medical conditions, Sims IVF is experienced in working closely with endocrinologists and other specialist doctors.

Drugs Payment Scheme

If you are an Irish resident, fertility medications may be covered under the DPS (Drug Payment Scheme).

To qualify for the scheme and to get the latest updates on your entitlements, you can apply to the HSE. Forms are available from any pharmacy.

Private Health Insurance

Some of the major healthcare providers cover aspects of fertility treatment. It is possible that they may cover consultations and / or some investigations or tests. For more information, contact your health insurance company directly.

Tax Relief

If you are not eligible for health insurance cover for your fertility treatment, you may be able to claim tax relief. Keep all invoices as these are tax deductible and it may be possible to reclaim them under the Med 1 scheme. Further information and forms are available at www.revenue.ie

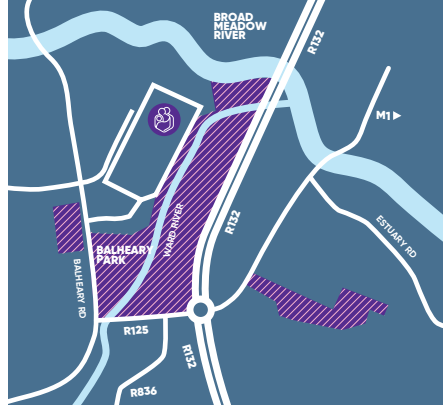


Our Clinics



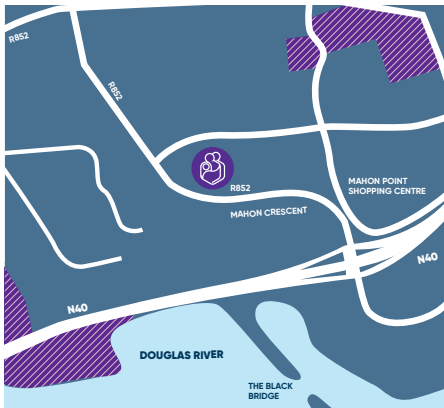
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We are an Academic Unit providing teaching for the students of the Royal College of Surgeons in Ireland.



We provide teaching for Postgraduate Doctors from the Danylo Halytsky Lviv National Medical University, Ukraine.



Our Quality Management System is accredited to the standard of I.S. EN ISO 9001 by the National Standards Associated of Ireland.

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Directions to our Clinics are also available on our website www.sims.ie



Born in 1997