

YOUR FERTILITY JOURNEY.



Welcome to your Fertility Journey

As Australasia's leading centre for infertility and IVF treatment, we would like to welcome you and make your experience with us as comfortable and simple as possible. Through our pioneering science and professional care and support, you can be assured of our dedication at every step. We have been helping people begin and grow their families for more than 30 years and we're delighted that you've decided to join us for your journey. We are dedicated to ensuring your experience with us exceeds your expectations and that we give you the support and care to make your fertility treatment as seamless and low stress as possible.

We understand the emotional investment required when considering and undergoing assisted reproduction. Because of this, we've built small, intimate teams of professionals to support you during your care. You will have your own Fertility Specialist and a team of Nurse Coordinators, Scientists, Counsellors and other professionals who will be there for you every step of your treatment to offer guidance, support and be available to answer your questions.

We have designed this booklet to provide you with the most important information you will need to ensure you are well informed about what you may encounter during your fertility treatment - the benefits and also any potential risks. The information in this booklet should be read in conjunction with the consent forms you will be requested to sign.

There can be a lot to take in when your Fertility Specialist first explains the plan for your fertility treatment and we understand it can be hard trying to get your head around the steps involved and what you need to do when. Your nursing team and patient relationship coordinator will explain the process and costs for your specific treatment in detail but you can also refer to the information in this booklet to refresh your memory.

Our patients often tell us that hearing that they're not alone in having trouble conceiving helped them cope better with their own journey. Sometimes reading about other people's experiences can be a good way to gain some perspective on your own situation. You can read about other patients' Conception Stories on the Genea website: www.genea.com.au/mystory

Alongside our world leading science, the high level of care we provide to our patients is something we are very proud and we believe it is a key difference to other clinics. We receive a consistently high satisfaction rating from our patients after their treatment. If you have any concerns or feedback - good or otherwise, please let us know so we can address your concerns and improve our care. If at any time you need additional assistance or information interpreted into your language, please advise your team who can arrange this for you.

We're honoured to be joining you on your fertility journey.

Kind regards,



Dr Tomas Stojanov, CEO

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Your Fertility Journey

Initial assessment and types of assisted reproduction

Infertility affects many people. Up to one in six couples have difficulties in conceiving. In Australasia, assisted reproduction treatments can only be provided by accredited clinics.

In your initial consultation with your Fertility Specialist, they will discuss various investigations to try to identify the cause of your infertility so that a treatment option can be recommended. Even after these tests, up to 30 percent of couples may still not have an identified cause.

Depending on your circumstances, your Fertility Specialist will recommend a specific assisted reproduction technology and develop an individualised treatment plan for you. This brochure provides information on:

- In vitro fertilisation (IVF) and related treatments such as intracytoplasmic injection (ICSI), preimplantation genetic diagnosis (PGD), preimplantation genetic screening (PGS)¹, freezing eggs for fertility preservation, donating gametes (eggs or sperm), taking part in surrogacy arrangements and the transfer of frozen embryos.
- Ovulation tracking (OV)
- Ovulation induction (OI).
- Intra-uterine insemination (IUI).

Success depends on the type of treatment, the cause of infertility as well as age. Your fertility specialist will give you more information on your likelihood of success when a treatment type is selected.

New Zealand patients may access a free initial obstetric consultation with one of the Geneva Oxford practitioners, this is not currently available at our other clinics.

Some patients embarking on treatment may have special moral, cultural or religious requirements. Please make these known to us and we will ensure your beliefs and requirements are respected.

¹ PGD & PGS unavailable in our Oxford clinic.

1. *In vitro* fertilisation (IVF) and related treatments

Whether embarking on *in vitro* fertilisation (IVF), intracytoplasmic injection (ICSI), freezing eggs for fertility preservation, donating gametes (eggs or sperm), taking part in surrogacy arrangements or the transfer of frozen embryos, this information outlines the various steps to treatment.



An ultrasound scan of an ovary showing follicles

Step 1: Stimulating the ovaries to produce eggs (oocytes)

All assisted reproductive techniques involve the monitoring of the menstrual cycle to time procedures precisely.

A follicle is a fluid-filled sac in the ovary, which has the potential to nurture a single egg to maturity. A number of follicles will normally begin to develop in the ovaries during each menstrual cycle. In a natural cycle, usually only one of these follicles will continue to grow and ovulate a mature egg. Excess or immature follicles provide hormonal support, but do not progress to produce a mature egg.

In assisted reproduction, the goal is to encourage more follicles to develop in order to collect a safe number of mature eggs. We do this with injections of Follicle Stimulating Hormone (FSH), which will start within a few days of your period arriving and continue for up to two weeks. Sometimes other agents are used as well - you will receive an individualised medication regime developed by your Fertility Specialist and must collect your medication from a pharmacy (in Australia) or the clinic (New Zealand).

As you are undergoing the stimulation process, blood tests are used to measure hormone levels and vaginal ultrasound examinations are used to monitor the number and size of the follicles. The first blood test and ultrasound are generally conducted within a week of starting FSH. This monitoring takes place before 9am to ensure we can consult with your Fertility Specialist about your results and provide you with further instructions for the next steps – all on the same day. Your treatment may be adjusted based on the results.

It is important that unprotected intercourse is avoided during this stage of treatment (and for two days after the egg collection procedure) because sperm can remain alive for several days within the female reproductive tract and there is a chance of spontaneous conception and an increased risk of multiple pregnancy.

There are psychological aspects to infertility as well as physical effects. Feelings of frustration, sadness, anxiety and lack of control are common, even for people who don't normally experience these sorts of emotions and feelings. We have a dedicated, supportive team of Nurse Coordinators and Counsellors who can provide advice, support and understanding, so please ask.

RISKS - For full details refer to the risks and hazards section

- Medication side effects
- Exposure to human substances
- Premature ovulation / conception
- Cancellation of treatment cycle
- Ovarian Hyper-Stimulation Syndrome (OHSS)
- Freeze all (embryos)
- Multiple pregnancy following unprotected intercourse during treatment
- Rare but serious long term risks
- Cycle commencement time

Step 2: Preventing premature ovulation before egg collection

Ovulation is the process by which the body recognises a mature follicle and releases a hormone called Luteinising Hormone (LH) to stimulate the follicle to expel the egg into the fallopian tube. During treatment you will be prescribed medication to inhibit this natural release, so that the eggs produced in the follicles can be collected by your Fertility Specialist.

Step 3: 'Triggering' ovulation

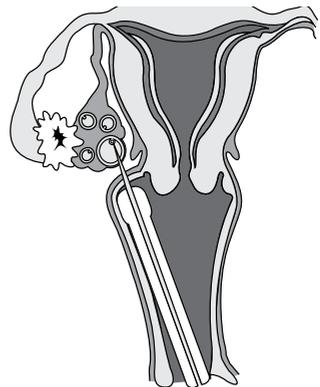
When blood tests and ultrasound results indicate the time is optimal, you will be provided with instructions to inject a drug to mimic the body's natural LH surge. This will be a single injection that is administered at a specified time and the egg collection procedure is typically scheduled 36 hours later.

Step 4: Egg collection procedure (Oocyte pick-up; OPU)

The egg collection procedure can be conducted with intravenous pain relief and local anaesthetic; under sedation or with a general anaesthetic. It is best to discuss these options with your Fertility Specialist in advance of the day of the procedure. Your Nurse Coordinator will advise if you need to fast in advance of your procedure.

In the day surgery procedure room, your ovaries will be scanned using a vaginal ultrasound. To numb the area, local anaesthetic is placed in the wall of the vagina. A needle is then passed through the wall of the vagina beside the cervix and into the ovary to collect the fluid contained in each follicle (each of which is now large enough to possibly contain an egg).

As the follicles are emptied, the collected fluid is passed to your Embryologist, who locates any eggs and transfers them into a specially prepared dish. (Not all follicles will contain eggs, and some eggs may not be mature). The microscope that the Embryologist uses to view the eggs is attached to a video camera so you can watch this process if you choose.



Ultrasound guided egg collection from the ovary

While some discomfort due to pressure on the ovary is normal, only around 1 in 20 women experience pain. Pain relief is provided if necessary and any discomfort managed during and after the procedure. Some women may feel faint or light headed after the procedure, don't worry - our Nurses will remain close by to monitor and provide you with support. There can be minor bleeding (spotting) from the vagina, during and after your egg collection procedure. If this happens, please use liners or pads (not tampons) for the next week, to minimise the risk of infection.

For egg donors, at this stage the eggs will be taken to the laboratory on behalf of the recipient.

For egg vitrification procedures, the eggs will be taken to the laboratory and frozen for future use.

In both situations, treatment finishes here, but there can be some side effects over the next few days such as tiredness, discomfort and bloating.

RISKS - For full details refer to the risks and hazards section

- Anaesthetic complications
- Bleeding
- Infection
- Injury to organs near the ovaries
- Falls and injury
- A follicle may not yield an egg
- No eggs collected

Step 5: Sperm collection

The sperm used to inseminate the eggs can be either fresh or frozen. Your Fertility Specialist will advise you on which option is the most suitable for you.

Fresh semen can be collected in one of our private rooms at our clinic; at home (for those who live within an hour of the clinic); or through a surgical sperm retrieval procedure. If collecting at home you must use one of the clinic's home collection kits and the sample must be delivered to the clinic by the sample's owner.

Sperm can also be frozen in advance of the day of the egg collection procedure for reasons such as:

- Previous difficulties in collection;
- The male partner is unavailable on the day of the egg collection procedure; or
- For cycles involving donor sperm.

In the case of donor sperm, a quarantine period of 4 months applies before frozen sperm can be used.

All samples are prepared for use by a washing procedure that removes the seminal plasma, debris and immotile sperm.

Step 6: Culturing embryos in the laboratory

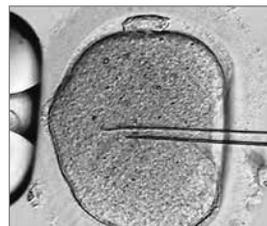
After the egg collection procedure (or egg thawing if the eggs were previously frozen), your Embryologist will review the maturity of the eggs. Eggs determined by the Embryologist to be suitable will be inseminated by either IVF or ICSI.

IVF (*In vitro* fertilisation):

In conventional IVF, washed sperm are placed in a dish with the eggs. The following day they are examined by the Embryologist to assess if they have successfully fertilised. In normal fertilisation, the Embryologist should see 2 pronuclei (structures which contain genetic information) - 1 from the sperm and 1 from the egg, contained within a single cell. Not all eggs will fertilise and, unfortunately, occasionally no eggs will successfully fertilise.

ICSI (Intra-cytoplasmic sperm injection):

If your Fertility Specialist has determined there is a decreased chance of fertilisation occurring with IVF, either due to low sperm numbers; decreased sperm motility; other barriers to the fertilisation process (such as anti-sperm antibodies); or if there has been a previously experienced failure to fertilise using IVF, then ICSI may be used. The suitability of ICSI is determined in each individual treatment. The Embryologist will select sperm based on appearance and activity and inject a single sperm into each mature egg. It is, again, unfortunately the case that not all eggs will fertilise.



A single sperm injected into an egg during the ICSI process

Blastocyst culture and selection:

Once fertilisation has occurred, the embryo will divide and rapidly increase in cell number over the next few days. While many embryos can survive 2 or 3 days to reach the 4 to 8 cell stage, only the strongest and most viable will have the ability to keep developing into a blastocyst by Day 5, which contains between 75 and 100 cells. We believe that the best way of identifying the embryos with the strongest developmental potential is to let them grow longer in the laboratory and to transfer them at the blastocyst stage.



Day 2: 3-4 cells



Day 3: 6-8 cells



Day 4: morula



Day 5: blastocyst

The eggs, sperm and embryos are cultured in a special solution of salts, sugars, amino acids, vitamins, protein and other substances. These solutions (or culture media) have been researched and developed by us over the past 20 years and are used by IVF clinics worldwide. The newest version of these solutions is currently available for exclusive use by patients in Australasia, only in our clinics.

RISKS - For full details refer to the risks and hazards section

- Exposure to human and animal substances
- Infection
- Handling error
- External factors
- Potential health risks for children conceived by IVF/ICSI
- No fertilisation or embryo development

GeneSure*

Preimplantation Genetic Screening (PGS)

Preimplantation Genetic Diagnosis (PGD)

Unlike conventional IVF, where the Embryologist chooses which embryo will be transferred to the uterus based on a visual assessment, we offer both Preimplantation Genetic Screening (PGS) and Preimplantation Genetic Diagnosis (PGD) using our GeneSure technology which takes the IVF process one step further, allowing a more informed choice of embryo for transfer based on the genetic or chromosome makeup of the embryo.

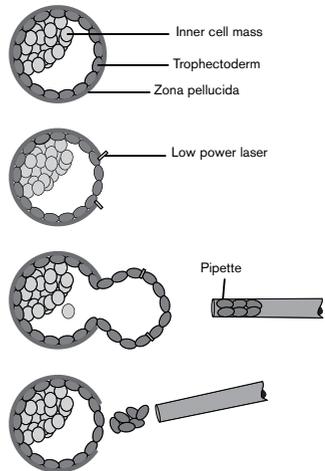
If your treatment includes PGS and/or PGD, your embryos will undergo a procedure called hatching where a small incision in the outer layer of the embryo is made using a laser. To the best of our knowledge hatching the embryos is not harmful and does not increase the risk of monozygotic twinning.

In fact, embryos must hatch in order to implant in the uterus. After hatching, the embryos are cultured until they have reached the blastocyst stage and an embryo biopsy is performed by removing a small sample of cells (less than 5%) from the trophectoderm (the structure of the embryo which becomes the placenta in a successful pregnancy).

These cells can then be tested using different techniques either alone or in combination: Next Generation Sequencing (NGS); and linkage analysis via Polymerase Chain Reaction (PCR) and/or karyomapping.

Genetic screening and your individual circumstances should be discussed with your Fertility Specialist before commencing treatment, but as a general guide:

- NGS assesses the chromosome make-up of embryos and this may be appropriate for people who:
 - have had recurrent miscarriages;
 - have experienced previous unsuccessful IVF attempts;



The blastocyst biopsy process used in PGD

* Not currently available at Genea Oxford

- have a previous history of chromosome problems;
- need to choose the sex of their baby in order to avoid a sex-linked genetic condition; or
- may develop a high number of healthy appearing blastocysts, in which case NGS can help to choose the most viable embryo to use, sooner.

Following analysis, an embryo with an acceptable chromosome result will be selected for transfer to the uterus.

- Linkage analysis may be appropriate for people who:
 - are affected by or carry a known genetic condition; or
 - have a family member who has a genetic condition.

Following analysis, an unaffected embryo will be transferred to the uterus.

Chromosome testing using NGS*:

Embryos with the wrong number of chromosomes could fail to implant, lead to a miscarriage or result in the birth of a baby with a serious medical condition. NGS is used to check that each embryo has the correct number of chromosomes present. As the NGS test itself takes some time, all of the biopsied embryos are frozen while our PGD scientists perform the testing and determine the results. Following testing, suitable embryos can be thawed and transferred to the uterus.

Because we are excluding a proportion of embryos from transfer for the cycle, the number of available embryos will be lower, but the implantation rate per embryo transferred is higher.

An embryo may return a result indicating a mixture of abnormal and normal cells (referred to as mosaicism) and you will be required to undergo additional genetic counselling before such embryos can be considered for transfer. The decision to transfer an embryo with mosaicism is made with the understanding that there may be an increased risk of an adverse clinical outcome. Your treating IVF specialist will support you in making the decision to transfer such an embryo and will help answer any questions you may have.

Please also refer to the PGS embryo screening brochure and PGS patient information

Specific genetic disease testing using karyomapping or PCR*:

For some patients who have a known genetic condition or risk factors, a genetic test is performed to check for those specific diseases. The first step involves a review of your suitability for either karyomapping or PCR test development.

This work-up phase will usually take between 2-4 weeks to develop for karyomapping or 10-12 weeks for PCR linkage. Once the work up is completed, an IVF cycle can be initiated. Generally fertilisation is achieved using ICSI and on Day 5 or 6 of embryo development the scientist will take a biopsy sample to diagnose the genetic status of the embryo.

Both NGS and linkage analysis techniques can be combined to obtain the benefit of both tests. In this situation, all embryos are frozen and full results are available in line with NGS testing outcomes.

* Not currently available at Genea Oxford

We are committed to offering our patients the latest technology. PGS and PGD are not automatically performed during IVF so this should be discussed specifically with your Fertility Specialist to determine if this is suitable for your circumstances. There may also be circumstances that come to light while you are undergoing your treatment where it is believed our GeneSure technology could improve your clinical outcomes. Your Fertility Specialist will discuss this with you if clinically appropriate.

RISKS - For full details refer to the risks and hazards section

- Not all embryos will reach the blastocyst stage or develop appropriately to proceed with PGD testing
- No diagnosis due to test failure
- False diagnosis - PGD/PGS laboratory techniques are generally 95-99% accurate
- Even if you are fertile and having PGD for genetic disease testing, you may not fall pregnant
- Affected pregnancy (baby with a serious medical condition) following unprotected intercourse during treatment.

Step 7: Embryo transfer and excess embryo storage

Embryo transfer options include:

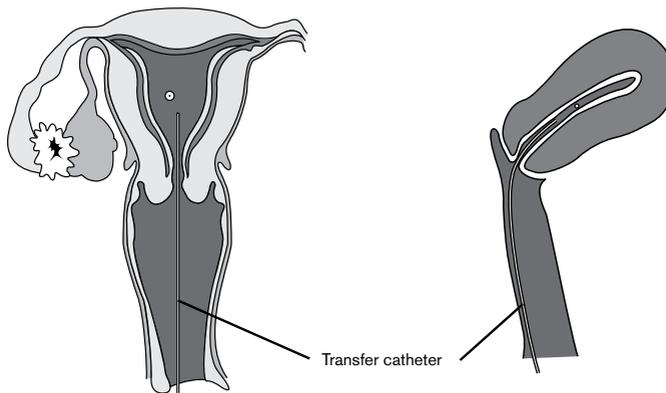
- Fresh transfer following the egg collection procedure; or
- Fresh transfer following cycle monitoring to receive an embryo created from donor eggs; or
- Fresh transfer following egg thawing and fertilisation; or
- Frozen transfer of a thawed embryo (Cryo) following cycle monitoring (includes PGD/PGS tested embryos and surrogate cycles where offered)

Women having an embryo transfer that is not part of the stimulated cycle (such as frozen embryo transfers, recipients of donor eggs and surrogate cycles) will have their menstrual cycle monitored so that the embryo can be transferred to the uterus at the right time. This might be undertaken in your natural menstrual cycle, or might involve your Fertility Specialist developing an individualised medication regimen.

An embryo transfer is usually straightforward and painless, generally no more (or less) uncomfortable than having a Pap test and usually does not require sedation. A fine soft catheter that has been loaded with the embryo is passed through the cervix into the uterus with ultrasound guidance and generally little recovery time is required.

Worldwide, some clinics transfer more than 1 embryo to try to increase success rates. Our technology allows us to achieve world-leading success rates with single embryo transfers. Transferring just 1 embryo at a time dramatically reduces the chance of a multiple pregnancy and, therefore, the associated risks.

Freezing spare embryos does not lower the chance of implantation. Therefore, the choice of transferring for example, 1 embryo fresh and later, 1 embryo frozen-thawed does not lower the chance of pregnancy.



The transfer of an embryo into the uterus

As a result of a stimulated cycle there may be extra embryos that are not transferred. These extra embryos may be frozen for later use for another attempt at pregnancy. It is important to note that not all embryos are suitable for freezing and some may not survive the thawing process.

It is important that unprotected intercourse is avoided during a frozen embryo transfer cycle to reduce the chance of spontaneous conception and the associated increased risk of multiple pregnancy.

RISKS - For full details refer to the risks and hazards section

- You may not fall pregnant
- Ectopic pregnancy
- Miscarriage
- Multiple pregnancy
- Baby with serious medical condition

Step 8: Extra hormonal support after embryo transfer

In some women, the ovaries do not produce enough hormones on their own to support a pregnancy so at times additional medication may be prescribed to support implantation until the outcome of the cycle is known.

Step 9: Waiting for your pregnancy test

A pregnancy test is not reliable until approximately 9-11 days after an embryo transfer. Some women and couples can find this period of waiting unsettling and some will feel simultaneously elated as there is a new chance of pregnancy and deflated as there is much less to do and not as much contact with your team at the clinic. Some refer to this time as the dreaded 'Two Week Wait'. We have a team of dedicated Counsellors who are available (either in person, over the telephone or via SKYPE) at no extra cost – so please use this service if you want to.

Please note that a pregnancy test is mandatory if you have received treatment with donated gametes or are a surrogate.

Many factors will contribute to the success of treatment, including age and cause of infertility. For our latest success rates, please refer to our websites: www.genea.com.au/successrates (Australia) and www.geneaoxford.co.nz/success-rates (New Zealand).

96% of couples who achieve a successful pregnancy with us, do so within 3 stimulation cycles and any additional transfer cycles.

Step 10: After your pregnancy test

Even with the best science, will and care, not every embryo will implant and create a pregnancy. If you are not pregnant, your team are available to support you and help you plan your next steps.

For those with a positive pregnancy test, an ultrasound is required at 7 weeks gestation (3 weeks after the initial positive test) to further monitor the pregnancy. From that point, our team hand over care to your GP, Obstetrician or Midwife.

We are required to provide de-identified cycle outcome information to various authorities, so even after your treatment with us is over, we may need to make contact to confirm any details.

2. Ovulation tracking (OV)/ Ovulation induction (OI)

Ovulation tracking monitors your menstrual cycle with blood tests to guide timed intercourse.

Ovulation induction involves using medications to stimulate the ovaries, and monitoring the menstrual cycle with blood tests and ultrasounds (as discussed above for IVF and related treatments) that generally commence at Day 7 to 12 of the cycle. Once it is identified that there is a follicle growing, and ovulation occurs (spontaneously or via an injection to trigger ovulation) your Nurse Coordinator will provide guidance on when to have intercourse. Follow-up medication to support the lining of the uterus and further cycle monitoring may be required. A pregnancy (blood) test may be undertaken 14-16 days after ovulation to determine the outcome of the cycle.

RISKS - For full details refer to the risks and hazards section

- Medication side effects
- Exposure to human substances (FSH injections only)
- Premature ovulation / conception
- Cancellation of treatment cycle
- Multiple pregnancy

3. Intra-uterine insemination (IUI)

Intra-uterine insemination involves monitoring the menstrual cycle with blood tests and ultrasounds (as discussed above for IVF and related treatments) that generally commence at Day 7 to 10 of the cycle, and may also involve using medications to stimulate the ovaries. Once it is identified that there is a single follicle growing, and ovulation occurs (spontaneous or via an injection to trigger ovulation) you will be advised when to attend the clinic for the insemination procedure.

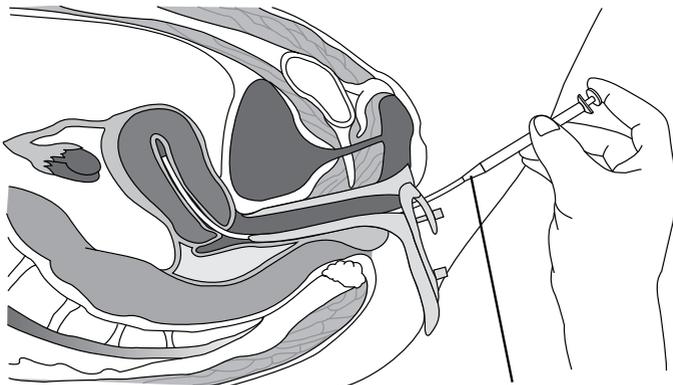
The procedure involves depositing washed sperm directly into the uterus using a catheter. The outcomes after an IUI are very much dependant on the underlying cause of infertility, but lower than IVF.

For those using a fresh semen sample this will require the man to attend the clinic a few hours prior to the scheduled procedure time to permit the sample to be prepared. Otherwise sperm which has previously been frozen can be used.

Follow-up medication to support the lining of the uterus and further cycle monitoring may be required. A pregnancy (blood) test may be undertaken 14-16 days after ovulation to determine the outcome of the cycle.

RISKS - For full details refer to the risks and hazards section

- Medication side effects
- Exposure to human substances
- Premature ovulation / conception
- Cancellation of treatment cycle
- Multiple pregnancy



Sperm injected into uterus

Intra-uterine insemination procedure

Important information about the potential risks and hazards of assisted reproduction

In appropriate circumstances assisted reproduction significantly increases the chance for pregnancy, often in situations where it was otherwise impossible prior to its introduction. However, as with any medical treatment there are risks. We have identified the risks during each treatment step above and more in-depth information on the key risks of which you should be aware is provided below. You should discuss this and any questions you may have with your Fertility Specialist prior to commencing any treatment.

Cycle risks, including during stimulation:

Medication side effects: It is usual to experience some mild side effects from the medication. This tends to be similar to, but more pronounced than, the symptoms you experience in the lead up to your period or what you might know as pre-menstrual syndrome (PMS) - bloating, headaches, nausea, irritability, mood swings and breast tenderness. All potential side effects are outlined in the Consumer Medicines Information sheets provided by the manufacturers and enclosed with each medication. It is important that you read this information and discuss any concerns with your Fertility Specialist or Nurse Coordinator.

Exposure to human substances: Certain drugs that may be used in your treatment are derived from the urine of women who are pregnant who are recruited in different parts of the world by the relevant drug company concerned. In over three decades of worldwide use of urinary products, no case of infection transmission has been confirmed.

Drug supply: It is important that you are responsible for monitoring your personal medication supply as lack of the appropriate drugs may affect your treatment. Please contact your Nurse Coordinator for a prescription to collect medication from your pharmacist (Australia) or to obtain a prescription or medication (New Zealand).

Premature ovulation/unprotected intercourse: There is a small risk of spontaneous (premature) ovulation during stimulation; a medicated frozen (Cryo) cycle; fresh recipient transfer cycles; prior to timed intercourse with ovulation induction or IUI; and at the time of egg collection.

Sperm can remain alive for several days in the female reproductive tract and this means there is a risk of spontaneous conception (and an increased risk of multiple pregnancy) if you have unprotected sex at this time. To guard against this risk, you should refrain from unprotected sexual intercourse between the third day of your stimulation (FSH) medication until 2 days after your egg collection procedure or as advised by your Nurse Coordinator. This is particularly important if you are an egg donor, surrogate, (or a PGD patient having embryo testing for a genetic condition). We recommend you use barrier contraception.

Cancellation of a treatment cycle: Although less than 5% of cycles are cancelled, your Fertility Specialist may find it necessary to recommend the cancellation of your treatment cycle. A cycle could be cancelled because:

- Your follicles are not responding to hormone treatment, or ovulate prematurely;
- Your follicles are over-responding to the medication and you are at risk of ovarian hyperstimulation (OHSS);
- Multiple follicles have developed prior to planning timed intercourse or IUI; or
- Unexpected uterine problems (such as fibroids or polyps) are detected on ultrasound examination.
- Cancelled cycle or delay in treatment due to unforeseen circumstances (for example an illness or an inability to access services/medications required for safe and effective treatment).

Ovarian Hyper-Stimulation Syndrome (OHSS): This is a condition in which the ovaries produce high levels of hormones/too many follicles. This is associated with fluid moving from your blood vessels into the abdominal cavity and lungs. One out of 3 women have some symptoms of mild OHSS, which are similar to premenstrual symptoms, such as abdominal bloating, nausea and weight gain (due to fluid retention) which all resolve without treatment. These same symptoms are worse in women with moderate OHSS. Women with severe OHSS usually have vomiting and an increase in discomfort from swelling of the abdomen and in the worst cases can develop shortness of breath and require hospitalisation. The risk of this is around 1 in 200 (0.5%) of egg collections. In severe cases, OHSS can also result in very enlarged ovaries, dehydration, fatigue and the collection of large amounts of fluid in the abdomen and lungs. Very rarely, OHSS can lead to blood clots and kidney failure, which even more rarely can be fatal. (These symptoms can be exacerbated by air travel, please speak with your Fertility Specialist regarding any travel plans.) If you experience vomiting, diarrhoea, shortness of breath, or pain that has not subsided 40 minutes after taking pain relief, contact your Nurse Coordinator and, if in doubt, present to the nearest Emergency Department. Please let us know if you are hospitalised at any stage during your treatment (for any reason).

Ovarian torsion: In around 1 in 1,000 cycles an enlarged stimulated ovary can twist on itself because the ovary is heavier from more follicles. This twisting can cut off the blood supply and cause acute pain that necessitates immediate hospital admission. Unless corrected quickly by surgery the affected ovary may need to be removed. If you experience vomiting, diarrhoea, shortness of breath, or pain that has not subsided 40 minutes after taking pain relief, contact your Nurse Coordinator and, if in doubt, present to the nearest Emergency Department.

Freeze all embryos: If you are at risk of OHSS or if a problem is discovered in the uterus, or for other reasons such as being unwell, your Fertility Specialist might suggest that you have a 'freeze-all' cycle rather than cancel the cycle completely. In a freeze-all cycle, the eggs are collected, fertilised and cultured to Day 5, but no embryo will be transferred in this cycle and any suitable embryos will be frozen for possible future use.

Long-term health effects: There have been very few studies examining the long-term health effects of IVF for women, other than some studies relating to cancer. A number of large studies have investigated the relationship between the use of fertility drugs and breast cancer. Combining these studies, the risk of using fertility drugs has been investigated in over 45,000 women and no overall increase in the rate of breast cancer has been found. Ovarian and uterine cancers are much more uncommon and therefore more difficult to study. However, most studies have shown no significant increase in the risk of developing these cancers due to fertility drugs. Some studies have raised questions about whether there is an increase in cancer risk associated with the duration of fertility drug use, or use of specific types of fertility drugs among certain groups of infertile women. To date there is no conclusive evidence that these factors increase the risk of cancer.

Although the findings of these studies are reassuring, it is important to remember that IVF has only been available for just over 30 years and that it is only in the last 2 decades that IVF has been used by large numbers of women. Therefore, questions remain about the very long-term risks of using fertility drugs, particularly for rare forms of cancer. Also, little is known about the effect of fertility drugs in women with a strong family history of breast or ovarian cancer, or in women with a personal history of cancer prior to fertility treatment.

Finally, some studies show that simply having infertility may place a woman at higher risk (i.e. a risk independent of treatment).

Risks in the Day Surgery/Procedure Area

Effects of Anaesthetic/Sedation: The nature of the anaesthetic or medication routinely used will normally permit you to leave the Day Surgery/Procedure Area after a short recovery period. You must plan to have a responsible adult accompany you home. It is strongly advised that they also stay with you overnight. You should not drive, operate machinery or make important decisions for 24 hours following your procedure.

Complications of Anaesthetic: Our procedures are normally performed under sedation but on occasions it may be necessary to use a general anaesthetic. General anaesthesia has increased risks. It is important that you follow the nil by mouth instructions from your Nurse Coordinator (no food or fluids, including chewing gum for at least 6 hours before your procedure). This will reduce the risk of aspirating any stomach contents into your lungs whilst you are unconscious. More serious complications, including nerve damage and death, are extremely rare. These risks will be explained to you in more detail by your Anaesthetist.

Major Bleeding: Any invasive medical procedure carries a small risk of unexpected bleeding. Major bleeding may rarely occur if there is damage to an internal organ or blood vessel. This risk is probably around 1 in 5,000 to 1 in 10,000. This may require emergency surgery to correct and a blood transfusion if blood loss is severe. Following the procedures involved in your treatment, a small amount of vaginal bleeding is normal. The puncture sites through the vaginal wall will heal quickly and the bleeding will stop, however, this remains a potential site of infection for the next few days. It is safe to use sanitary pads or liners. You should not use tampons for 1 week and you should also avoid saunas, hot water spas and very hot baths.

Infection: Any invasive medical procedure carries a small risk of infection. Hand hygiene, wearing of protective attire (gloves, scrubs, gowns, eyewear and masks for example), high standards of house-keeping and the use of aseptic or sterile techniques and equipment are all part of our service to ensure your timely recovery and to reduce the risk of infection. All needles used for any purpose (such as collecting blood or eggs), and all of the plastic that comes into contact with your gametes or embryos in the laboratory is new. Surgical instruments are cleaned and sterilised after every occasion of use in line with standards that meet or exceed those approved by the relevant state Health Department for day surgery units (Australia) or the Ministry of Health (New Zealand).

Some patients are at a higher risk of acquiring a serious pelvic infection (in particular ovarian abscess) as a result of egg collection. These situations include prior pelvic inflammatory disease, obstructed fallopian tubes (hydrosalpinx), endometriosis, ovarian cysts or difficult to access ovaries. The overall risk of a serious infection is around 1 in 1,000, but higher in these situations.

Additionally, all patients are screened for infection risk on admission to the Day Surgery/ Procedure Area, so that additional precautions may be taken to protect other patients and staff. These additional precautions range from applying dressings to protect wounds/skin, to requesting patients with respiratory symptoms to wear a mask. In severe cases as medically indicated, the procedure may be cancelled or postponed until you are well. You should talk to your Fertility Specialist or Nurse Coordinator if you are not feeling well prior to, or following any planned procedures.

Injury to organs near the ovaries: The physical manipulations required to access the follicles to collect your eggs may occasionally result in injury to the organs near the ovaries, such as the bladder, bowel or blood vessels. Rarely, injury to an adjacent structure such as the bowel or blood vessel can be a severe complication and may require blood transfusions and surgery for repair.

Falls and Injury: The unfamiliar environment of the Day Surgery/Procedure Area, combined with the fact you may have medication during your admission can increase the likelihood of falls and injury whilst in our care. Our Nurses will ask you a series of questions when you are initially admitted to identify any pre-existing conditions and the need for increased resources or supervision during your visit. If you normally use any mobility aids or visual aids, please bring these with you to the Day Surgery/Procedure Area. Our Nurses will orientate you and ensure the environment is as safe as possible, but you should still:

- Take special care when walking or standing, particularly after a procedure where anaesthetic, sedation, or administration of pain-relieving medication has been involved.
- Tell your Nurse or Fertility Specialist if you notice any tenderness or soreness over a bony area or you notice any reddened, blistered or broken skin.

Risks in the Laboratory

Exposure to human and animal substances: During the course of your fertility treatment you will be exposed to a limited set of biological materials.

For couples, we assume that any semen or sperm-containing fluid you or your partner provide the clinic for use in your treatment is that of your partner, with whom you usually have unprotected sexual intercourse. Therefore, we infer that any possible infectious or genetic hazards brought about by using the semen or sperm you give us are not new.

In the case of donated semen, the gametes must come from a donor quarantined for at least 4 months:

- (i) with us; or
- (ii) Another gamete bank appropriately licensed or accredited in accordance with relevant legislation; or
- (iii) An overseas gamete bank that uses the same screening criteria against infectious diseases as is required by law and by regulation in Australia and New Zealand.

In the case of donated eggs, there is a potential for transfer of infectious agents which we reduce by; i) creating embryos and freezing for a quarantine period before transfer or ii) freezing eggs for the quarantine period. In some cases your Fertility Specialist may consider that the risks from treatment are low enough to warrant you considering a waiver of the quarantine period to permit a fresh transfer. This will be discussed with you by your Fertility Specialist and you will be asked to sign a consent document regarding the infection risks.

Many substances and supplies are used in laboratory culture systems. These are always purchased from the most reputable suppliers and are of the highest possible grade of purity. However, whilst the best possible care is taken in their use, we cannot guarantee that impurities or contaminants that affect laboratory results might not occur. In particular, human albumin forms part of the culture solutions used to prepare gametes and embryos, and some of this albumin is therefore transmitted along with transferred eggs or embryos. The albumin is prepared by prolonged heat treatment that kills viruses. It is purchased from overseas suppliers and is a pharmaceutical quality product. The enzyme (hyaluronidase) that is used to prepare eggs for ICSI is derived from animals and is also prepared by prolonged heat treatment. The use of these products is standard in IVF programs everywhere and to date there have been no reported disease complications from their use.

Infection: There can occasionally be an undetected infection within the female reproductive tract. Some of this infective material may be collected with the eggs. Because the culture solutions used in the laboratory are designed to promote biological growth, the infection can grow in the embryo culture dishes and destroy the embryo(s).

Handling error: The provision of assisted reproductive treatment is a highly specialised area and involves human manipulation of your gametes (eggs and sperm). Gametes and embryos can only be seen under the microscope. Very precise movements and manipulations of your gametes and embryos must be undertaken in the laboratory. It takes years of training to

become a competent Scientist. Nevertheless, occasional handling errors can still occur even by the most experienced Scientists. There are circumstances where there will be no embryos to transfer, which is not due to human error. However, very rarely, an embryo (or gamete) loss is due to human error that was preventable. Everything that we do is designed to avoid such incidents. However, if such a loss does occur, you will always be fully informed of the circumstances and supported. We will, at your election EITHER refund the relevant cycle fees to you OR re-provide treatment at no out of pocket cost to return you to the situation you would have been in, but for the incident. These circumstances are very rare and you will always be fully informed of any incident that affects your treatment.

External factors: We are not (and will not be) liable in circumstances where there has been an error, mistake, failure, damage or loss caused by, or caused in substantial part by, circumstances or people beyond our direct control or practical ability to detect. This includes, but is not limited to situations of damage or loss caused by:

- Faulty or defective or, in retrospect, sub-optimally designed equipment or consumables that have been used in accordance with manufacturer's instructions and/or maintenance schedules and/or generally accepted practice; and
- Events including natural disasters and catastrophic accidents not attributable to our conduct, whether innocent, intentional, negligent or malevolent;
- A person or persons or company or government agency outside of our control, including but not limited to criminal acts, acts of terrorism, changes to laws or regulations, industrial action, third party corporate collapse or orders of a court.

Health risks for children conceived by ICSI: After intracytoplasmic sperm injection (ICSI) there is a slightly increased chance of health risks for children. Whether this is due to the laboratory process itself, or whether it is due to the inherent sperm problem that has led to the need for using ICSI, is unclear. Your Fertility Specialist can discuss the specific risks with you. It is advisable for men with significantly low sperm counts to have genetic tests performed to detect causes that can increase these risks before starting ICSI treatment. These include testing for:

- The genes associated with Cystic Fibrosis;
- Changes in the number of sex chromosomes; and
- Errors in the Y chromosome.

There is also a higher risk that an unknown genetic cause of male factor infertility might be passed on to male children.

No fertilisation or embryo development: Fertilisation can fail and fertilised eggs can fail to divide or undergo development properly. The reason can lie with the sperm, with the egg or both.

Sometimes it can lie with the laboratory. There are occasional genetic causes of difficulty with eggs or sperm which might not become apparent or be suspected until you have undergone one or more cycles of treatment.

PGD/PGS biopsy (Australia only): It may be that not all embryos will be suitable for embryo biopsy and GeneSure analysis, but in some cases could develop should they be transferred to the uterus. Your Fertility Specialist may discuss transferring embryos that have no information available and inherently would then have the same risk of carrying the condition for which PGD was considered.

False diagnosis with PGD/PGS (Australia only):

All medical tests have a small risk of an incorrect result. This means either:

- False negative – where the chromosome count is normal; or where no abnormal gene is identified, but the embryo is actually abnormal or affected by the genetic disease in question. This may be caused by contaminated genetic material or a mixture of normal and abnormal cells in an embryo or a faulty test result that has failed to identify the abnormal genes or chromosomes.
- False positive – where an embryo is diagnosed as having abnormal chromosomes or having the genetic disease in question, but this does not represent the true status of the embryo. This is usually caused by a mixture of normal and abnormal cells in an embryo, but a faulty test or contaminated genetic material can also be a cause.
- No diagnosis – due to failure of development or inconclusive genetic results, the genetic status of the embryo may remain unknown. As such, these embryos would inherently have the same risk as an untested embryo of carrying the condition for which PGD/PGS was considered and should be transferred at your own risk after consultation with your Fertility Specialist.

Due to the tiny amount of material available for testing, PGD/PGS as a process is less accurate than prenatal diagnosis by amniocentesis or chorionic villus sampling (CVS). Also, even in a blastocyst, embryo cells are not in the final form that they will have as a fetus and placenta after implantation. PGD/PGS does not completely exclude errors as the embryo can continue to change as it develops further. So even if you have PGD/PGS, you should still have the usual first trimester pregnancy screening tests that you and your pregnancy carer would otherwise consider.

Following PGD/PGS analysis, affected and/or abnormal embryos are classified as clinically unsuitable. They may be used for training purposes or frozen for future follow-up confirmation testing or possible research (your consent for research would be sought separately).

PGD/PGS (Australia only) may reveal new genetic information: If undergoing PGD/PGS it is important to note that the molecular genetic testing can reveal information that you may not have been aware of before embarking on treatment, this could include information about the parentage of those individuals being tested.

New knowledge: Assisted reproductive services are constantly evolving and new knowledge can alter the information provided to patients. We encourage patients to stay informed and visit our website(s). Once you are no longer receiving treatment, we do not have an obligation to inform you of new information that may or may not turn out to be relevant.

The long-term effects of the technological interventions on patient or children who result from them are not fully understood. The newer or more innovative the procedure, treatment or test the more uncertainties, hazards, or risks there could be and these uncertainties, hazards, or risks are inherent in assisted reproductive services and cannot be entirely eliminated.

Risks during pregnancy

You may not fall pregnant: Not all embryos that are transferred will result in a pregnancy. The embryo may fail to implant, or when a pregnancy is established it may not carry to term. This may be for various reasons, including, the energy stored in the embryo(s), chromosome abnormalities or other physical causes.

Ectopic pregnancy: The embryo may occasionally implant within the fallopian tube or elsewhere instead of the uterus. If you are pregnant and experience a sharp, stabbing pain (that has not subsided 40 minutes after taking pain relief); vaginal spotting or bleeding; dizziness or fainting; low back pain or low blood pressure (from blood loss), call your Nurse Coordinator immediately and, if in doubt, present to the nearest Emergency Department. There is a 1 in 50 risk of an ectopic (tubal) pregnancy (potentially higher if you have a past history of tubal damage). If an ectopic pregnancy occurs, you will usually need medication to end the pregnancy or surgery to remove it.

Miscarriage: The rate of pregnancy loss or miscarriage following IVF is similar to the rate following natural conception, with the risk increasing with the mother's age. The rate of miscarriage may be as low as 1 in 7 for women in their 20s to more than 1 in 2 for women in their mid-40s. There may be a genetic cause of the miscarriage including chromosome errors in the parents or fetus; or there may be a physical reason. If you experience recurrent miscarriage, your Fertility Specialist can arrange investigations of the cause. Preimplantation Genetic Screening (PGS) can be of assistance in some situations (where available).

Multiple pregnancy risk: We would like to help you grow your family one baby at a time. If you have had trouble conceiving, the idea of having 2 babies at one time could be appealing. However, multiple pregnancies place an increased physical burden on the mother, including an increased risk of miscarriage, high blood pressure, bleeding and premature birth and death of the babies. Severe prematurity is much more likely when carrying twins, leading to abnormalities and developmental delay. The risk of a fetus dying in utero is up to 10 times higher for twins compared to singletons; rates of cerebral palsy are up to 4 to 7 times higher. These risks are even higher for triplet and higher order multiples. Premature babies can have difficulty with breathing, feeding problems and other developmental delays. Even if normal, caring for more than one baby can cause challenges associated with emotional, physical and financial stress.

Furthermore, there is the potential for one of the fetuses to be chromosomally normal and the other abnormal; this has the potential to put the entire pregnancy at risk.

For these reasons, the Reproductive Technology Advisory Committee (RTAC) requires clinics to recommend no more than one embryo is transferred in the first treatment cycle of an IVF

cycle where the female is less than 35 years. We generally only transfer one embryo. Also, an embryo can sometimes divide to produce two or more embryos, creating identical twins. The risk of a twin pregnancy after a single blastocyst transfer is approximately 1 in 100. The risks of birth defects and still birth(s) are often higher with identical twins, depending on whether they share the placenta. In certain circumstances, such as advanced maternal age of the woman, or previous unsuccessful treatment, we may consider transferring two embryos following detailed consultation with your Fertility Specialist.

Outcomes for babies: Every pregnancy, whether conceived naturally or by assisted reproduction has a risk that the baby may be born with a serious medical condition, either from a chromosome error or the combination of genetic material from both parents. There may be as yet, unknown inherited genes which are the cause of infertility. The risk of birth defects in children conceived naturally is 1 in 50 to 1 in 33 (2-3%) whereas the risk of birth defects in children conceived by IVF is estimated by the American Society for Reproductive Medicine (ASRM) to be 1 in 38 to 1 in 26 (2.6-3.9%). Also, there may be an increased risk of sex chromosome abnormalities, hypospadias (urinary opening not at the tip of the penis) and imprinting disorders when intracytoplasmic sperm injection (ICSI) is performed as part of IVF. There may be other rare conditions that are more common in children born after IVF; for example Beckwith-Wiedemann syndrome which is thought to be increased from about 1 in 14,000 to 35,000 in spontaneously conceived babies to about 1 in 4,000. For up-to-date information you should consult your Fertility Specialist. You should not assume that genetic testing or PGD is automatically conducted.

Getting ready to start - information we would like you to be aware of

We would like to assist you to be in the best possible state of health and preparation before commencing treatment with us. We recommend you consider the following information before starting treatment.

Have a check-up: Before starting assisted reproduction and possibly pregnancy it is ideal to have a check-up by your GP. You should ensure that you:

- are up-to-date with your Pap test;
- have had a recent breast exam, ruling out any unexplained lumps;
- have been immunised against rubella (German measles), varicella (Chicken pox), whooping cough and influenza;
- have had all viral screening blood tests, vaginal swabs, diagnostic ultrasounds and sperm tests as ordered by your Fertility Specialist; and
- know your blood group.

If you do not have a GP, Clinic GPs are available for appointment in the Kent St, Sydney (1300 367 198) and Genea Hollywood Fertility (08 9389 4200) clinics.

Consider genetic screening to reduce your risk of conceiving a child with a serious genetic syndrome. Discuss this with your Fertility Specialist.

Nutrition and supplements: You should follow a nutritionally adequate diet and, where this is not possible, talk to your Fertility Specialist about the value of supplementation or alternative dietary advice. You must be careful to not take more than the recommended daily allowance of Vitamin A, because higher amounts can cause birth defects. Taking extra folic acid before and after the time of conception greatly decreases the risk of spina bifida. It is recommended you take at least 0.8 mg per day (unless otherwise directed by your Fertility Specialist). Many women also require supplementation of vitamin D and iodine.

Herbal preparations contain active ingredients that are not standardised and their mechanism of action is largely unknown. We recommend you discuss your supplement regime with your Fertility Specialist prior to commencing treatment.

Weight: An increased body mass index (BMI) in women and men can reduce the chance of pregnancy and success with IVF and in women, significantly increase the risks from IVF procedures and the risks in any achieved pregnancy. If your BMI is greater than 35, national guidelines recommend against assisted reproduction and your Fertility Specialist may not treat your infertility until you attempt to lower your BMI. If you need assistance, we can refer you for weight and lifestyle management.

Smoking and recreational drugs: Cigarette smoking is harmful to sperm, eggs, and very early embryos. If you are a smoker we encourage you to stop smoking now. Any recreational drug or steroid use should be stopped completely.

Genetic testing: We recommend that you consider your family history (where possible) and ensure you have discussed your detailed medical and family history with your Fertility Specialist. There are tests for genetic diseases available that should be considered depending on your particular medical or family medical history, age or ethnic origin as it might be possible to test for your carrier status and prevent transmission of genetic disorders to your future children. It should never be assumed that any kind of genetic testing will be performed unless this has been specifically discussed and agreed to.

If you carry a gene mutation that gives a significant risk of conceiving a child with a genetic condition, or a chromosome change that could cause miscarriage or the birth of an affected child, it's likely our PGD Scientists could design a PGD test for your embryos to reduce the risk of transmission. New Zealand patients can discuss options for accessing PGD testing in Australia.

Your psychological wellbeing: Your fertility treatment may add extra stress and increase the strain on your relationships. These feelings may also be increased by the side effects of the medications. The treatment process can mean that some people experience a roller coaster of emotions depending on the length of treatment and its outcome. We provide counselling services that can greatly assist managing this emotional impact. You may want to consider meeting one of our team of dedicated Counsellors before or during your treatment. More information is available:

Australia

www.genea.com.au/counselling or by contacting 1300 361 795. External support can also be accessed through the consumer support group, ACCESS www.access.org.au.

Western Australia

www.hollywoodivf.com/im-a-patient/counselling

New Zealand

www.geneaxford.co.nz/counselling or by contacting 0800 377 894. External support can also be accessed through the consumer support group, Fertility NZ. You can find out more about Fertility NZ by visiting their website www.fertilitynz.org.nz.

Even though we understand that you may be frustrated, we will not tolerate verbal or physical abuse or discriminatory behaviour towards staff members, other patients or external contractors. We have a duty of care to provide a safe working environment for our staff and to provide the safest most supportive environment for our other patients. This also includes discriminatory behaviour towards staff and other patients e.g. comments based on ethnic background, current pregnancy or physical disability. We understand that this is a difficult time and we will do everything in our power to support you.

The consenting process: You will be provided with consent documentation in advance of your treatment. A consent form is a legal document which gives permission for treatment and acknowledges that you accept the risks and benefits of the treatment. It is your decision whether to be treated (or to continue treatment). It would be a criminal offence for us to provide treatment without your consent. Before you commence your treatment it is important that you understand the procedures your Fertility Specialist is planning for you and the potential risks and benefits. This booklet is an outline to your treatment, but you should talk with your Fertility Specialist or Nurse Coordinator if you have any questions before you sign the consent forms. Depending on your type of treatment, you will be required to sign one or more consent forms. Your circumstances may change over time. You may complete your family, or simply decide on no further treatment. Some couples may separate. You are able to withdraw your consent for treatment at any time by advising us, in writing.

Please note that where embryo transfers are concerned, consent is required from both partners. We will not, for example, undertake a frozen embryo transfer cycle (Cryo) unless there is signed consent to do so, from the patient's partner.

Nothing in the consent forms seeks to exclude or limit the application of any applicable legislation. We are not (and will not be) liable in circumstances where there has been damage or loss caused, or caused in substantial part by events or actions beyond our control or practical ability to detect, including but not limited to accidents not attributable to our conduct, changes to laws or regulations, industrial action or orders of a court.

Preparing for the future: Consideration should be given to the future outcome of any eggs, sperm or embryos that result from your treatment. This includes both what you would like to happen to gametes/embryos that are in excess to your reproductive needs and in the event that one or both partners die, you separate, or become unable to vary your instructions.

Our team can assist you in considering your options and our Counsellors are available to help you make a decision that is right for you. You should include instructions in your Genea consents and we recommend that you also include details in your Will(s).

Legislation, regulations and guidelines vary between State and Country jurisdictions. We recommend that you read your Genea consents carefully and also consider whether legal advice is appropriate for your particular situation.

These rules may restrict (or prohibit) the use of reproductive tissues after death, especially in the absence of written consent. In the event of no instructions, impractical or conflicting instructions, gametes/embryos may be discarded upon the death of either partner without requiring further consent.

Charter of Patient Rights

In Australia, we have adopted the principles of the Australian Charter of Healthcare Rights, which is an initiative of the Australian Commission on Safety and Quality in Health Care. You can find out more about the Australia Charter of Healthcare Rights by visiting the Commission's website: www.safetyandquality.gov.au where you will find additional resources and access to alternative versions including audio, Braille and translations.

In New Zealand, we have adopted the principles of the Code of Health and Disability Services Consumers' Rights. You can find out more about the Code by visiting the Health and Disability Commissioner's website: www.hdc.org.nz or by phoning 0800 555 050. You will find a brochure detailing the Code of Health and Disability Services Consumers' Rights included in your Consents pack. Please take a moment to read the Code as it explains your rights as a consumer.

1. **Access** – A fundamental right to adequate and timely healthcare. We will provide you with access to appropriately trained healthcare professionals during your treatment; facilitate appropriate referrals as required and provide you with the tools to access the care you need. You can contribute to the right of access during treatment by informing us of your needs and any changes in your circumstances, being available to receive your instructions and results, being on time for your appointments and ensuring timely payment of any fees. Sometimes healthcare may be provided by external health practitioners. Please be aware that as a private healthcare provider, we reserve the right to cease treatment or discontinue the storage of gametes/embryos if fees remain outstanding.
2. **Safety** – A right to safe and high quality care. You can contribute to the right of your safety by alerting your Fertility Specialist and/or your team if you are unsure about what is happening to you, or if you think something has been missed in your care, or if there are any circumstances that might make your healthcare riskier. We request that all staff and patients are treated with respect. Please make suitable arrangements for care of your children when you visit us – our staff are not permitted to care for your children. Medical equipment in our clinics may be hazardous to children and Department of Health license requirements do not permit children in the Day Surgery at any time. Please be aware that

we have a duty of care to refuse or discontinue treatment if your actions compromise the safe delivery of your care/ treatment, or the safety of others.

3. Respect – A right to be shown respect, dignity and consideration. You are entitled to receive care in a way that is respectful of your culture, beliefs, values and individual circumstances. It is important to tell your Fertility Specialist and your team of any special requirements you may have and any changes in your circumstances. You can also contribute to the right of respect by being mindful and considerate of our staff and other patients. Some of our patients have told us that the presence of children in our waiting areas is distressing. Where possible we request that you please make alternative arrangements.
4. Communication – A right to be informed about services, treatment, options and costs in a clear and open way. Your Fertility Specialist and your team will tell you about the care you are receiving and help you understand what is happening. You can contribute by being open and honest, being available to receive results and instructions and attend appointments as required during your treatment. To understand the instructions given to you, we encourage you to ask questions if you would like more information. We can arrange an interpreter for you if English is not your first language.
5. Participation – A right to be included in decisions and choices about care. Your Fertility Specialist should give you a clear explanation of your diagnosis, your treatment and any associated risks, as well as other treatments available. When you become our patient you will receive information about your proposed course of treatment, including medications and side effects, and anticipated procedures. You will also be provided with detailed information about our fees, including any likely out-of-pocket costs. You are encouraged to ask questions if you are unsure about what is happening or you'd like more information. Involve your support people or family if this makes you more comfortable and sure.
6. Comment -A right to comment on care and have your concerns addressed. We are committed to continuously improving our service and your feedback is important to us. From time to time we may contact you for quality assurance purposes to offer you the opportunity to provide feedback. If at any time you have any specific feedback or concerns about any aspect of our service, please raise this with us by calling:
 - New South Wales and Victoria – (02) 9229 6420; in writing to Patient Experience Manager, Genea, Level 2, 321 Kent St, Sydney NSW 2000; or through our website www.genea.com.au/feedback.
 - Western Australia – (08) 9389 4200; or in writing to Genea Hollywood Fertility, Locked Bag 2001, Nedlands 6909; or through our website www.hollywoodivf.com/feedback
 - New Zealand – General Manager 0800 377 894; or in writing to Genea Oxford, Level 1, 132 Peterborough Street, Christchurch Central, Christchurch 8013; or through our website www.geneaoxford.co.nz/feedback

You may also address concerns about us to your relevant Health Complaints Commissioners:

- Australian Capital Territory – Health Services Commission (02) 6205 2222
or email: human.rights@act.gov.au
 - New South Wales – Health Care Complaints Commission (02) 9219 7444
or email: hccc@hccc.nsw.gov.au
 - Western Australia – Health and Disability Service Complaints Office (08) 6551 7620
or email: mail@hadsco.wa.gov.au
 - Victoria – Health Complaints Commissioner 1300 282 113 or online via
www.hcc.vic.gov.au/contact or email: hcc@hcc.vic.gov.au
 - New Zealand - Health and Disability Commissioner 0800 11 22 33
or email: hdc@hdc.org.nz
7. Privacy – a right to privacy and confidentiality of provided information. The personal information you share with us during your treatment will be safeguarded in accordance with Australian Privacy Principles/Privacy Act 1993 (NZ) and in accordance with our Privacy Policy. Over the page is our Privacy Collection Statement which we are required to make available to individuals at or before we collect personal information.

Genea Privacy Collection Statement:

We collect personal and health information from individuals enquiring about or seeking health services. We may collect your information in the following ways:

- during conversations with you, over the phone or face to face
- through your use of our website
- from your referring doctor, other treating doctors or Fertility Specialist
- when you complete our forms and paperwork

Sometimes we may obtain health information about you from a third party ie your partner or other family member (when it is not practical to obtain it from you). This information will always be confirmed with you when it does become practicable to do so.

All information is held securely on an Australian based information platform.

If any of the personal or health information you provide is not accurate or complete, it may detrimentally affect the services that we can provide and may result in us being unable to provide you with our services.

For what purposes do we collect, hold, and use your personal and health information?

Your personal and health information is collected and used to ensure you can be informed about the services that we provide, that you receive the best possible care if you become our patient, and for us to manage the health services we provide to you effectively. It will also be used to:

- send communications (including results) to you and your referring and treating doctors
- provide information and advice
- conduct business processing functions
- update our records and keep your contact details up to date
- respond to any complaint made by you
- comply with any law, rule, regulation, lawful and binding determination, decision or direction of a regulator, or in co-operation with any governmental authority

It will also be used internally for the administrative, marketing, planning, product or service development, quality control and research purposes.

To whom may we disclose your information?

The only people who ordinarily see your health information are the ones who really need it - the health professionals directly involved in your treatment. However, if you are hospitalised as a result of your treatment and your records are needed urgently, they will be forwarded to the relevant medical professional without waiting for written consent.

We may disclose your personal and health information to our employees, related bodies corporate, contractors and service providers for the purposes of us providing the health service to you and managing our business (ie our computer systems) subject to strict confidentiality obligations.

Health information may also be provided to third parties if we are legally obliged to do so by a court subpoena, statutory authority, search warrant, coronial summons or to defend a legal action. If information is requested by a third party connected to you it must be accompanied by an original written authorisation from you to release that information.

There may be instances where mailing houses, couriers, payment processors, data entry services providers, electronic network administrators and debt collectors are provided with some of your personal details. They will never have access to your treatment information and are subject to strict confidentiality obligations.

We undertake and participate in medical research with collaborators that sometimes involves identifiable health information. Such research proposals must be presented to our Ethics Committee for approval prior to any project commencing and must follow strict guidelines. We will always request your permission to be involved in such research and your written consent to release your information to third party researchers.

Your personal and health information will not be disclosed other than as described in the Privacy Policy.

Do we disclose your personal information to anyone outside Australia/New Zealand?

No personal or health information is disclosed to parties outside Australia/New Zealand except in circumstances where you request and consent to its release (ie the shipment of biological material to an overseas clinic).

Our Privacy Policy: Our Privacy Policies are available at www.genea.com.au, www.hollywoodivf.com and www.geneaoxford.co.nz and contain further information about how you may access your information and how we will handle any complaints.

Our contact details:

Australia - privacy@genea.com.au or Privacy Officer, Genea Limited, Level 2/321 Kent Street, Sydney NSW 2000.

New Zealand - privacy@geneaoxford.co.nz or Privacy Officer, Genea Oxford Fertility Limited, Level 1, 132 Peterborough Street, Christchurch Central, Christchurch 8013.

Please also note that with this approach in place:

1. As part of our obligations as a registered provider of assisted reproductive technologies and in order to deliver treatment, we are required to send a summary of each treatment cycle in a de-identified manner to the University of New South Wales, Sydney, for inclusion in the Australia and New Zealand Assisted Reproduction Database (ANZARD). The data will be used for national statistical reporting, regulatory review and population based research by the National Perinatal Statistics Unit (NPSU).
2. Certain information, including participant identifying information may be required to be held in state Department of Health (DOH) registers, which may only be viewed by authorised DOH staff.
3. Some information will be provided to Medicare (Australia)/NHI (New Zealand) and/or your approved health fund on your behalf, if requested to do so.
4. Medical records may be internally audited by our staff for quality improvement activities and externally audited by officers or certifying bodies performing inspections for the purpose of clinical audit, licensing or institutional accreditation, including, RTAC, ISO 9001, National Standards for Safety and Quality in Healthcare, WARTC (Western Australia only), NATA and New Zealand Fertility Standards NZS8181. If you are also under the care of a GP or external O&G, we may provide information to them on your behalf for your continued treatment.

Open disclosure framework: We have adopted the Australian Open Disclosure Framework (2013) and the New Zealand Health and Disability Commissioner Code of Health and Disability Services Consumers' Rights. Should you experience an adverse outcome (through error or incident) at any stage during your fertility treatment, we and our representatives will:

- Apologise and maintain an open dialogue with you;
- Give a factual explanation of events (which may take time to investigate and determine) - including the potential consequences as they relate to your individual circumstances; and the steps taken to manage the event and prevent re-occurrence; and
- Give you an opportunity to relate your experience.

Research: We have achieved our world leading results by a continuing commitment to scientific research and the generous participation of our patients. Our Australian research projects are approved by our independent Ethics Committee and are strictly governed by the National Health and Medical Research Council (NHMRC) of Australia. Clinically unsuitable oocytes/embryos are excluded from your IVF cycle in order to maximise treatment outcomes and would normally be discarded. There are a limited number of research projects in which clinically unsuitable oocytes and/or leftover sperm may be used without the need for further consent forms.

Oocytes/embryos originally frozen for future cycles, may at some point become excess to a patient's clinical need for different reasons (e.g. when the patient's family is complete). With your specific consent, these excess or clinically unsuitable oocytes/embryos can also be donated to research projects. Our research team is undertaking a number of research activities to continuously improve the way in which we treat our patients and to further medical knowledge for the treatment of genetic or acquired diseases. Not all research projects are suitable for every patient; our Research Consent Team may contact you with information specific to your circumstances over the course of your treatment. Separate specific written consent for research projects has to be given and no research activity will go ahead without it. Your participation is entirely voluntary and your relationship with your team will not be harmed if you decide not to take part. If you have any questions about our research projects please the Research Consent Team on (02) 8484 7692 or research.info@genea.com

Clinical trials: Our ability to conduct world leading treatment is greatly assisted by the ability to offer clinical trials to our patients. New protocols, culture media and devices are extensively tested in pre-clinical studies. Apart from giving our patients access to the most advanced IVF protocols, clinical trials are usually conducted to determine final validation and usability studies in a clinical setting. Participation in clinical trials is entirely voluntary. Your decision will not affect the standard of care you receive or the relationship you have with your team. Details specific to current trials including study description, information about confidentiality, consent processes, potential risks and benefits of active clinical trials will be provided to you during your treatment. Please note that not all current clinical trials will be relevant to your specific

clinical circumstances. Your Fertility Specialist may contact you (or may have already spoken to you) with information about the clinical trial most relevant to your treatment, if applicable.

New technology: We are constantly seeking to provide the best possible care to our patients and to constantly improve our laboratory methods. This involves the validation and implementation of new and improved IVF techniques, IVF devices and IVF media during a clinical treatment cycle. For example, sperm may be prepared for use in your treatment in more than one way to compare new technologies with standard technologies. Eggs or sperm or embryos may be prepared or grown in more than one kind of culture medium or vitrified using different techniques. De-identified images of your gametes/embryos may be used for marketing/research purposes.

Quality improvement and training: Our ability to conduct high quality IVF procedures is dependent upon method development and ongoing training. During your journey with us, staff under training may be involved in your treatment and laboratory work. At all times trainees work under the direct supervision of fully qualified staff. Eggs or embryos not suitable for clinical use and leftover sperm would normally be discarded. These may be used for quality improvement and training purposes as governed by the NHMRC guidelines.

Pecuniary interests: Unlike many fertility clinics, we are not owned by private equity firms, but rather, we are largely owned by doctors past and present, and staff who provide your treatment. Please note that Assoc. Prof. Mark Bowman, Dr Lincoln Brett, Dr Janene Brown, Assoc. Prof. Michael Cooper, Dr Gabrielle Dezarnaulds, Dr Michael East, Dr Alison Gee, Dr Hilary Joyce, Dr Devora Lieberman, Dr Antony Lighten, Dr Mark Livingstone, Dr Derek Lok, Dr Tween Low, Dr Anthony Marren, Dr Gregory McGrath, Dr Myvanwy McIlveen, Dr Harry Merkur, Dr Helen Peric, Prof John Rasko, Dr Geoffrey Reid, Dr Lionel Reyftmann, Dr Katrina Rowan, Prof. Peter Russell, Dr David Shelley-Jones, Dr Simon Turner, and Dr Robert Woolcott own shares in Genea Limited (ABN 82 002 844 448) or an associated company or entity and therefore have a direct financial interest in us and in the licensed day surgery units at 321 Kent Street, Sydney, NSW; 173-175 Bigge Street, Liverpool, NSW; 10 Norbrik Drive, Bella Vista, NSW; 2 King Street Deakin, ACT and 132 Peterborough St, Christchurch Central, New Zealand.

Your next steps

Use the checklist below to ensure you have completed all steps prior to Day 1 of your treatment:

- Carefully reviewed and signed the attached 'Request and Consent for Treatment' document and returned to the clinic*.

Australia:

- A valid and current referral for Medicare claimable cycles. This must be dated and received by your treating Doctor prior to Day 1 of your cycle. If you do not have a valid referral you will be unable to claim a Medicare rebate. (Applicable for those with Medicare coverage)
- Completed the online payment registration and returned your signed quote to the clinic (refer to your quote for registration instructions). This will allow Genea to process your payments and lodge any applicable claims with Medicare and/or your Health fund on your behalf.

New Zealand:

- Completed the payment for treatment and returned your signed quote to Genea Oxford

*You may withdraw your consent for treatment at any time prior to the procedure, in writing

ENGLISH: If you need this information interpreted for you into your language please advise the receptionist when you book your appointment.

MAORI: Ki te hiahia koe ki ēnei kōrero i tō ake reo, tēnā whakamōhītia te kaiwhakatau manuhiri i te taupaepae i te wā e whakarite ana koe i tō hui.

ARABIC: دن ع لابق تسال فظوم غالب إى جري كفت غل يف لكل رسفت تامول عمل هذه ولإة اجاب تنك اذا زج حلا

CHINESE: 如果您需要使用此信息为您解释您的语言请告诉接待员当您预订您的约会。

ITALIAN: Se avete bisogno di questa informazione interpretato per voi nella vostra lingua si prega di avvisare la reception quando si prenota il tuo appuntamento.

VIETNAMESE: Nếu bạn cần thông tin này được giải thích cho các bạn vào ngôn ngữ của bạn Xác nhận các nhân viên tiếp tân tại khi bạn cuốn sách cuộc hẹn của bạn.

Glossary of Terms

For a more detailed glossary please visit genea.com.au/glossary (Australia) or geneaoford.co.nz/glossary (New Zealand).

Amniocentesis: the sampling of fluid from the amniotic or gestational sac, usually performed around 14 weeks of pregnancy to check the genetic normality of the fetus by determining its karyotype or for performing biochemical tests.

Antagonist (GnRH): a GnRH-analog that (unlike GnRH-agonists) immediately stops the pituitary gland from releasing the gonadotropins follicle stimulating hormone (FSH) and luteinizing hormone (LH). Can substitute for GnRH-agonists for many gynaecological purposes (particularly to suppress the LH surge in assisted conception), although its use with pure FSH preparation (such as Fertinex, Gonal-F, Metrodin HP or Puregon) can lead to poor egg quality unless the dosage is carefully controlled or some luteinizing hormone is added to the stimulation regimen.

Agonist (GnRH): a GnRH-analog that briefly stimulates the pituitary gland to release follicle stimulating hormone (FSH) and luteinizing hormone (LH), then within a few days reduces these hormones to low levels (you could say that the pituitary has had a clamp put on it), stopping them from competing with administered hormones—and, particularly in women, suppressing the LH surge that otherwise can spoil the timing of egg retrieval in an assisted conception program such as IVF (all clinics) and GIFT (New Zealand only).

ART: assisted reproductive technology

Blastocyst: stage of development of the embryo in which a fluid-filled cavity forms in the formerly solid ball of cells (the 'morula'), about 5 days after fertilisation. For the first time, a distinction can be made between a

sheet of cells to one side, which will form the embryo proper (the inner cell mass), and the remaining, peripheral cells, which – after the blastocyst 'hatches' through the zona pellucida and undergoes implantation – will form the placenta (the "trophectoderm").

Chorionic villus sampling (CVS): a test performed at about 10 weeks of pregnancy at which, under ultrasound guidance, a small sample of tissue is taken from the placenta (afterbirth) for genetic testing, such as a karyotype.

Chromosome: the visible structure formed by a single long strand of DNA with its supporting and regulatory proteins. There are 46 chromosomes in the nucleus of every human cell, 22 pairs of "autosomes" (common to both sexes) and the two sex chromosomes, XX in a female and XY in a male.

Culture medium: a solution of nutrients required for the growth of an embryo or tissue in culture.

CVS: chorionic villus sampling

Cytoplasm: the part of a cell that is not the nucleus (the nucleus contains the chromosomes). The cytoplasm is contained by the cell's 'plasma membrane' and contains all the other cellular structures, including the mitochondria. Genetic inheritance is mostly by way of the nucleus (with a contribution from mother and father); a small part is by way of the cytoplasm (with a contribution only from the mother). It's the cytoplasm of the egg into which a sperm cell is injected in the process of 'intracytoplasmic sperm insertion' (ICSI).

DNA: deoxyribose nucleic acid, a molecule made up of a sequence of nucleotides, the order of which forms the genetic code.

Embryo: the word is used loosely to describe everything from a fertilised egg to a fetus. Up to the time that the embryo would normally implant in the uterus (as a blastocyst), any of the cells of the fertilised ovum can develop into a whole new embryo - they are 'totipotent'. After implantation a group of cells (the inner cell mass) differentiates to form the embryo itself (later the fetus), whereas remaining cells go on to form 'afterbirth' tissues, namely the pregnancy membranes and placenta.

Embryo biopsy: the procedure whereby five or six cells are removed from an embryo (performed at the blastocyst stage, on Day 5 or 6 after fertilisation) for genetic analysis.

Embryo transfer (ET): procedure by which the embryo is placed in the uterus or into the fallopian tube after *in vitro* fertilisation.

Embryonic disc: derived from the inner cell mass. The part of the implanted embryo that will form the embryo itself, i.e. the fetus.

Fallopian tube: the hollow organ, about 10 to 12 centimetres long, that effectively joins the ovary to the uterus on each side. Composed of the fimbrial end, the ampulla, the isthmus and the interstitial segment.

Fertilisation: the fusion of the male and female gametes, a spermatozoon with an oocyte to form an embryo and, potentially to create a new individual.

Fluorescent in-situ hybridisation (FISH): a technique using fluorescently tagged pieces of synthetic DNA ("probes") to label particular regions of a chromosome so that it can be seen under a fluorescence microscope using ultraviolet light.

Gamete (pl. gametes): the generic term for a male or female germ cell, i.e. the spermatozoon or oocyte.

Gene: a specific part of the DNA that contains the genetic code for a single molecule such as an enzyme or other protein.

Genome: the entire genetic code of an individual cell or organism.

HLA: surface proteins present on most cells (including the fetus) and responsible for immune recognition or rejection.

Hybridisation: the matching of two complementary strands of DNA.

Implantation: the process whereby the blastocyst-stage embryo burrows into the lining of the uterus to establish a pregnancy.

***In vitro* fertilisation (IVF):** literally, fertilisation "in glass" (but in reality "in plastic"). This technique, whereby oocytes and spermatozoa are mixed in the laboratory to achieve fertilisation, is used as a treatment for infertility when the process has not occurred naturally inside the woman's body.

Intrauterine insemination (IUI): a form of assisted conception involving assisted insemination into the uterus, either for donor insemination (DI) or with a male partner's semen (AIH). IUI can be carried out with a woman's natural cycles or with ovarian stimulation (superovulation) using clomiphene or follicle stimulating hormone, with ovarian monitoring.

Karyomapping: a single nucleotide polymorphism (SNP) based linkage test used to track inheritance of disease gene regions.

Karyotype: a preparation made from one or more cells in the laboratory to study whether an individual has a normal set of chromosomes. A normal male is 46, XY while a normal female is 46, XX.

Mutation: a change in the coding sequence of a gene usually altering its function, often causing harm.

Next Generation Sequencing (NGS)

(Australia only): molecular genetic technique that allows determination of the number of chromosomes in an embryo.

Nucleotide: one of the molecular building blocks of DNA. A set of three nucleotides forms one letter in the genetic code.

Nucleus: the central part of each cell where the genetic code carried in the chromosomes resides.

Oocyte: the scientific term for the unfertilised egg.

OPU: oocyte pick up, the term used to describe the clinical procedure during which unfertilised eggs are collected from a woman's ovaries. Also called TVOA (transvaginal ovarian aspiration).

PCR: polymerase chain reaction.

Preimplantation Genetic Diagnosis (PGD)

(Australia only): preimplantation genetic diagnosis. Testing performed on the embryo using Genea's technology involving embryo biopsy and analysis of cells using genetic techniques.

Preimplantation Genetic Screening (PGS)

(Australia only): testing performed on the embryo involving embryo biopsy and analysis of cells using Next Generation Sequencing technology.

Polar body: one of the two small cell fragments produced and discarded during each of the two cell divisions that comprise meiosis in women, subsequently yielding an egg with one, not two sets of chromosomes.

Polymerase chain reaction (PCR): a molecular genetic technique that allows a single copy of a genetic sequence to be amplified geometrically to produce vast numbers of copies that can then be measured and analysed.

PCR is used for linkage and direct mutation detection.

Polymorphism: a variation of a gene comparable to a mutation but common enough in the population not to be strictly "abnormal"; may be advantageous or disadvantageous, depending on circumstances.

Sequence: the specific order of nucleotides, the basic building blocks of DNA, in a gene. This can be determined using an automated sequencer machine.

Spermatozoon (pl. spermatozoa): the scientific term for the male sex cell, often referred to as the sperm.

TVOA: transvaginal ovarian aspiration. See OPU.

