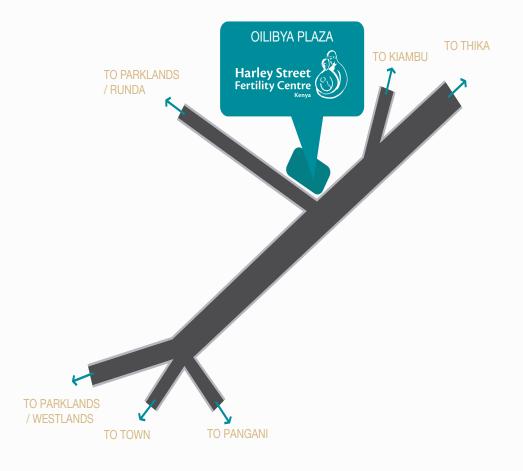
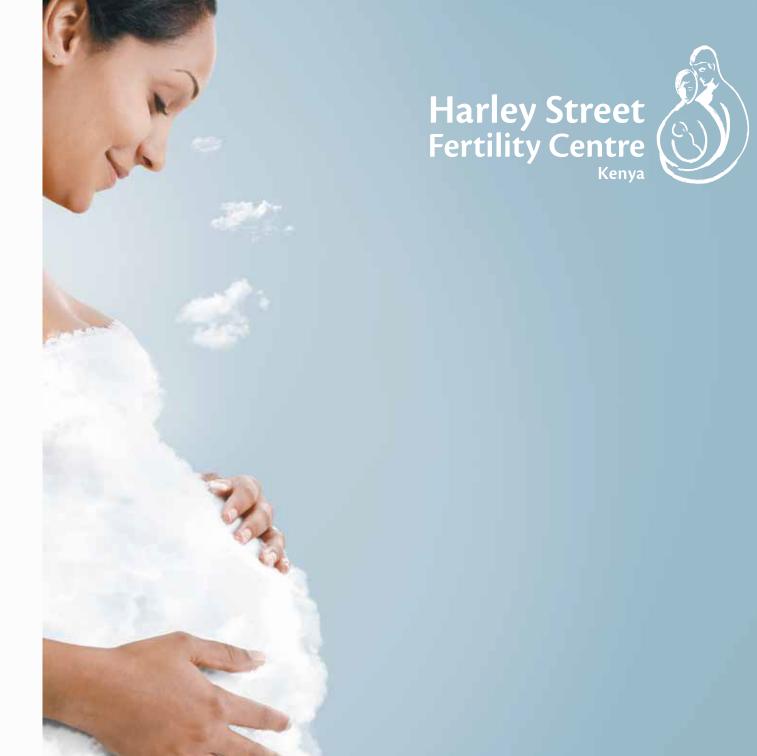
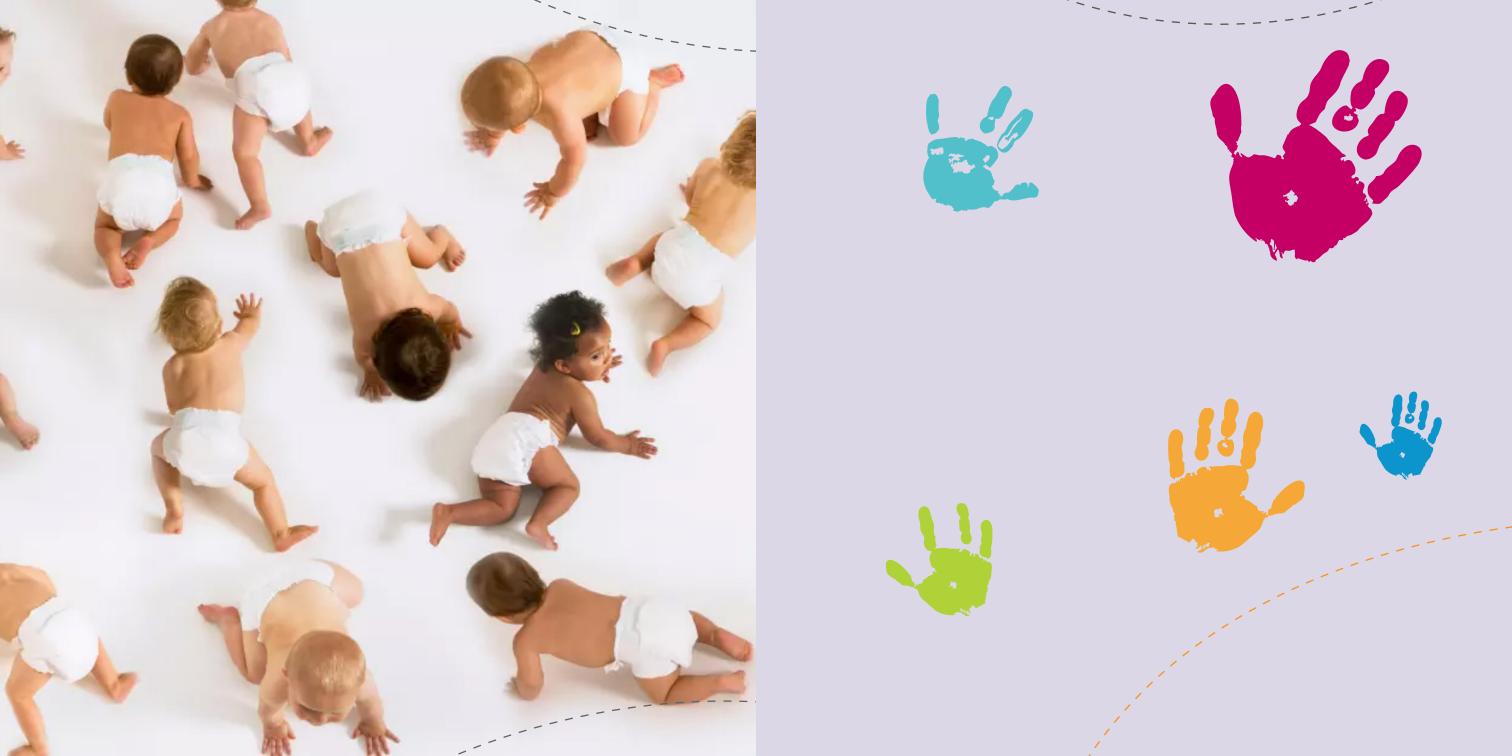
Harley Street Fertility Centre Kenya

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Web: www.applesandsense.com/fertility-services







When we have a desire to conceive, nature sometimes needs a hand. Harley Street Fertility Centre, Kenya (HSFC) aims to provide the latest technological advances in the diagnosis and treatment of infertility, where nature fails.

The services that we offer are of the highest standards and personalised to treat each patient (man or woman) individually We analyse each patient's profile and always identify the cause for sub fertility before offering appropriate solutions and treatment options. Many pregnancies result from treatments other than In Vitro Fertilisation therapies.

Our expertise with infertility diagnostic processes and subsequent individualised treatments are key to optimised success rates.

We have a team of highly trained, competent and experienced fertility consultants, embryologists and nurses

Our lead fertility specialist, Dr. Alfred Murage, is both locally and internationally recognised in the field of infertility.







OUR MISSION

Our mission is to offer innovative and appropriate treatments in a comfortable and peaceful environment. Treatments offered include Induction of Ovulation, Ultrasound follicle monitoring, Intra-Uterine Insemination (IUI), In Vitro Fertilisation (IVF), Intra-Cytoplasmic Sperm Injection (ICSI), Freezing of Embryos, Testicular biopsy and Freezing of testicular tissue.

We also offer additional diagnostics that include Saline Infusion Sonography (SIS) and Daycare Laparoscopic and Hysteroscopic Surgery.

There are no guidelines set out for Assisted Reproduction therapy, Human Fertilisation and Embryology in Kenya. Every work carried out at HSFC is in accordance with the guidelines set out by the Human Fertilisation and Embryology Authority (HFEA), UK and the Royal College of Obstetricians and Gynecologists, UK.



LIFESTYLE AWARENESS

It is important to think about your own health and well-being prior to IVF treatment. Pay close attention to your diet and your lifestyle before conception, to enable your body to cope with the demands of pregnancy and childbirth and, hopefully, ensure a healthy mother and baby. Folic Acid, for the potential mother, and other supplements may be recommended prior to and during your treatment.

Eat a healthy balanced diet, including plenty of fresh fruit, vegetables, fibre, protein and drink at least one litre of water daily. Continue to exercise, avoid cigarette smoking and alcohol, and medication without prescription. Inform your doctor and your dentist that you are having fertility treatment.

Try to limit your stress levels and emotional tension and if you feel that you need some psychological help, we will guide you to a psychologist.





INTRAUTERINE INSEMINATION (IUI)

This method consists of injecting prepared sperm into the uterus on the day of ovulation. This procedure is advised in cases where the sperm motility (forward movement) is poor, it is also a way of helping where there are ejaculation problems, and if the couple has difficulty having intercourse.

This method can be used with ovarian stimulation which allows us to improve the chances of conception, by increasing the number of eggs and good quality sperm, and controlling the time of ovulation.

The nurse will give you medication in the form of tablets and injections to stimulate the ovaries to produce eggs. She will teach you how to give yourself injections prior to commencing treatment. You will also be given written instructions regarding medication and timing of medication.

The first day of full flow bleeding is Day 1 of the cycle. During the treatment cycle, you should inform the Centre of this date, so that we can confirm instructions regarding drugs and also make the appointment for your first ultrasound scan. The scan is performed on day 8 or 9 of the cycle, in order to see how many follicles have developed in the ovaries. After the scan, the Doctor will tell whether you need to continue with injections and ovulation will be triggered by an injection one or two days prior to insemination. You should abstain from intercourse, 2 days prior to insemination.

On the day of insemination, your partner will have to produce a semen sample one or two hours prior to your appointment. The sample is processed in the lab to get high levels of active sperm in a small amount of fluid which will then be injected into the uterus by passing a fine catheter through the cervix. This is quite a simple and painless procedure which is done while you are in the gynecological position. There is no need for anesthesia and it lasts 2-3 minutes.

After the procedure, you will rest for 10-20 minutes and during this time the nurse will bring your instructions for the rest of your treatment. You may be given Progesterone vaginal tablets or gel, or injections to support the uterine lining in the post insemination stage of treatment. You can then go home and live a normal life. Fifteen days later, you will have the pregnancy test. This is recommended as a blood test which measures pregnancy hormone levels, to let us know if the treatment has been successful.

In case of a negative test, you will be offered a free follow-up consultation with Dr. Murage to discuss the strategy forfuture treatments.





IN VITRO FERTILISATION (IVF)

IVF is the procedure where an egg is fertilised with sperm outside the human body, in the lab. In Vitro means "in glass" in Latin.

Before making the decision to go ahead with IVF, you will meet Dr. Murage and our team to discuss all your queries. You will then meet the Fertility Nurse, at a "Pre-Treatment Appointment" (PTA), who will go through all the steps pertaining to your treatment and explain how to give yourself injections. For couples where the lady is not keen on self injection, we teach the husband how to give them.

Many husbands feel good and participate at this stage of treatment with much eagerness. You will also be given a detailed plan of the treatment with dates so you can plan your work commitments accordingly. You will be given consent forms to take home, to read and understand, prior to bringing these with you to your next appointment. If you have any questions about your treatment, we encourage you to draw up a list. Our role is to make sure that your treatment runs smoothly, without stress, and is a surcess.

Treatment related to IVF consists of hormone injections, oocyte (egg) recovery, fertilisation and replacement of embryos, followed by hormonal support.



ICSI (INTRA CYTOPLASMIC SPERM INJECTION)

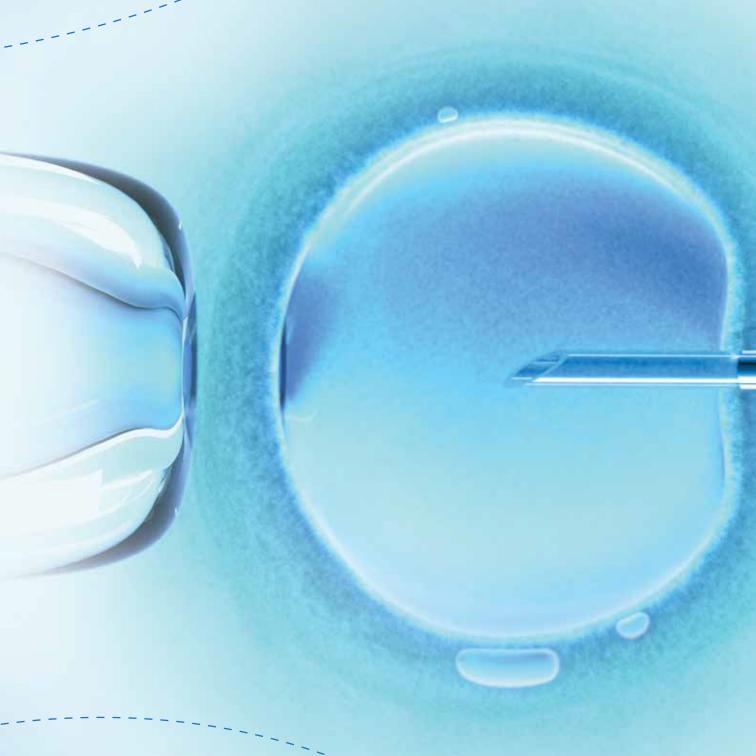
This technique is used in cases of male infertility, where sperm quality is poor, in cases where one or more IVF cycles have resulted in poor fertilisation rates, and when less than 4 eggs have been collected for IVF.

ICSI is possible even for patients who have very poor numbers of sperm in the ejaculate. For men who have no sperm in the ejaculate, sperm can be collected from the testes and used for ICSI.

With this technique, the Embryologist uses a fine glass needle, specially designed, to inject one sperm into each egg, in order to assist the fertilisation process. Egg collection and embryo transfer is carried out in the same way as is performed in IVF cycles.

The chance of pregnancy is the same as with IVF, which is dependent on the number and quality of embryos.







HORMONAL SUPPRESSION

During IVF it is essential that you do not ovulate before the collection of eggs. We make sure that there is no ovulation prior to egg recovery, either with injections of Buserelin (Suprefact) for 3 weeks (this is called the long protocol) or with injections of Cetrorelix (Cetrotide) from Day 6-8 of the period (short protocol.) We prefer to use the long protocol in young patients when we expect numerous eggs.

The short protocol is better in patients who have low ovarian reserve. Your first baseline scan will take place with your period in order to make sure that there are no cysts on the ovaries and that the endometrium is thin. If your baseline scan is normal, we will reduce the dose of Buserelin, if you are on the long protocol, and will start ovarian stimulation.

OVARIAN STIMULATION

Ovarian stimulation is carried out by injections of Gonadotrophins which stimulate the development of multiple follicles (eggs) in the ovaries. The dosage of the Gonadotrophins is prescribed depending on your age, your hormonal profile and your ovarian reserve. Most patients will have a daily injection of Gonadotrophins for about 10-12 days before the eggs are ready for collection.

Patients do not usually have any symptoms during the first few days of treatment. However, after about 7 days of treatment, some patients may have lower abdominal discomfort, and a feeling of distention. During ovarian stimulation, you will be followed closely with ultrasound scans and blood tests. We will check how many follicles are growing and their size. The dose of your injections will be adjusted so that we are not hyper-stimulating or under-stimulating the ovaries. Once most of the follicles have reached more than 17-18mm in diameter, we will set a date for the egg recovery.

You will then have the final injection in order to complete the maturation of the eggs, 2 days before the day of egg collection. The egg collection will take place about 36 hours after the final injection.





OOCYTE (EGG) RECOVERY

The egg recovery intervention is short and lasts about 20 minutes. It is a painless procedure, which is performed under anesthesia and you will only feel slightly uncomfortable when you wake up. On the morning of the egg recovery, you will be asked to attend the day surgery unit at Apples + Sense at 0700 hrs, and should be fasting from midnight prior to admission. Upon arrival, the nurse will take you to your room, where she will check your blood pressure, etc.

Following that, you will be taken to the Operation Theatre where you will undergo anesthesia. Dr. Murage will proceed with the egg recovery, by introducing a slim needle through the vaginal wall, into the ovary, guided by vaginal ultrasound scanning. As the follicles are punctured, the follicular fluid is transferred into a tube and examined under the microscope by our embryologist. Every follicle does not yield a mature egg. We can expect mature eggs from about 70-80% of the follicles.

As soon as you wake up, you will be told how many eggs have been collected. Following egg recovery you will rest for some time and can go home thereafter. You should not drive for 24 hours post-anesthesia. You will be given Progesterone supplements in the form of vaginal gel or tablets to start the same evening. Once you get home, take it easy, and go to bed early. Some patients complain of slight abdominal discomfort and some vaginal sensitivity and also some spotting or slight bleeding. This is normal.







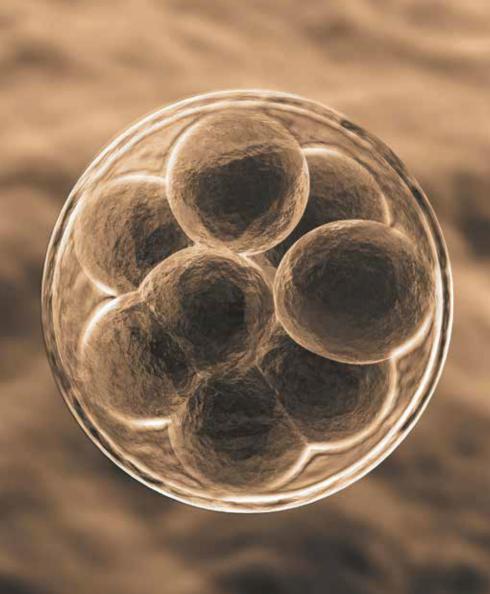


FERTILISATION AND REPLACEMENT OF EMBRYOS

The sperm and the eggs are left in the incubator overnight so that fertilisation can occur. We will phone you the next day to keep you informed of the number of eggs which have fertilised. The embryologist will keep a close eye on the embryos on a daily basis in order to make a selection of the best embryos to be transferred subsequently. We will keep in touch with you everyday to keep you updated of the progress of your embryos until the day of the transfer. The transfer will be scheduled between 2-5 days after the egg recovery. The number of embryos to be replaced will depend on the number of embryos that you have and also on the quality of the embryos. Any surplus embryos will be frozen to be used by you in future for another trial.

The replacement of embryos is done with a small plastic catheter inserted through the cervix. The intervention takes a few minutes and is a painless procedure. You will be in a gynecological position and will not need anesthesia for this.





LUTEAL PHASE AND PREGNANCY

You should continue your Progesterone as prescribed after the transfer of embryos. We recommend that you limit your physical activities for 48 hours following your embryo replacement. Drink at least 2 litres of water daily for the next few days. You can gradually increase the intensity of your activities until you resume a normal lifestyle. You may return to work a few days after the replacement if your work is not too physical.

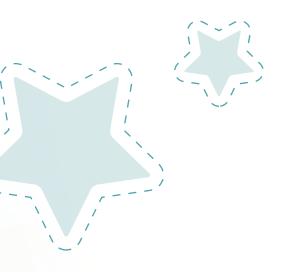
You will need to return to the Centre to have a blood test for pregnancy. If this result is positive, you will be advised to continue your Progesterone. Your first ultrasound scan will be 4 weeks after the egg recovery and you will have follow-up scans as appropriate during the first trimester of your pregnancy. Subsequently, you will be referred back to your treating obstetrician for antenatal care.

IF YOUR TEST IS NEGATIVE

Despite achieving a constant improvement in our pregnancy rates, the treatment is not always successful. Chances of succeeding with IVF vary depending on the age of the patient, on their past obstetric history and on the quality of their embryos. There are some disappointments and many happy outcomes. If your test is negative, you will be asked to stop the Progesterone medication and await your period. If your period starts before the day of the pregnancy test, please inform the Centre as soon as your period starts. Dr. Murage will see you for a follow-up a few days later to analyse your treatment cycle, discuss your options, and plan future treatment.

It is normal to feel discouragement after a failed treatment. You will feel physically and mentally tired, disappointed and incomplete. Feelings of frustration, anger and inadequacy are common. The nurse is available for counseling, if you need to talk, or we can refer you to a Counsellor or Psychologist, if you feel the need to see one for support counselling.





FROZEN EMBRYOS AND REPLACEMENT OF FROZEN EMBRYOS (FER)

Any spare good quality embryos obtained during an IVF/ICSI cycle are frozen to be used by you subsequently. They are frozen if they are found to be of good quality, judged by the embryologist. Embryos do not deteriorate with time and we store them for up to two years as per your initial consent. An extension of storage, with an annual fee, is possible with the consent of both partners.

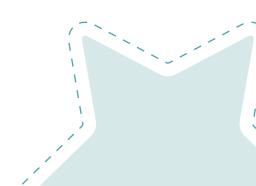
All frozen embryos may not survive freezing and thawing. Survival rates are however high. These reflect the quality of embryos and are not due to the freezing process itself.

Frozen embryo replacement cycles have several advantages.

- 1) Time does not affect survival, so replacement can be carried out at your convenience.
- 2) There are no injections involved.
- 3) The costs are less, so the financial stress is less.

Treatment involves hormone tablets to prepare the lining of the womb. You will be advised on how you will be monitored and when you will come for your embryo transfer.

A pregnancy test is performed 12–14 days following the replacement.



SEMEN ANALYSIS

Infertility in men is one of the main known causes of infertility, contributing up to 50% of the cases. Healthy sperm is one of the most important factors to determine a man's fertility potential. A classic marker of a man's fertility potential is a Semen Analysis.

An important factor to keep in mind, is that while sperm count (number), motility (movement) and morphorlogy (shape) are extremely important, it does not explain the whole story. A numbers of other factors which are mentioned within a Semen Analysis are also able to reveal many other symptoms which might have been overlooked and / or neglected.

We provide the highly comprehensive Semen Analysis in line with the WHO guidelines to help us achieve the correct diagnosis.

TESTICULAR TISSUE FREEZING AND TREATMENT WITH ICSI

A small proportion of men produce no sperm in the ejaculate. This condition is known as Azoospermia.

A testicular biopsy is done to diagnose the cause of Azoospermia and to freeze sperm for future ICSI. The procedure is performed under general or local anesthesia in some cases, depending on patient's preference.

An incision of less than $\frac{1}{2}$ cm in length is made in the testicle and a tiny fragment of testicular tissue is extracted for examination and freezing. This section of tissue is divided into 5-6 further sections so that one section can be tested on the day of the surgery to check for the presence or absence of normal live sperm. The remaining sections are frozen to be used subsequently for ICSI. The intervention lasts about 20 minutes and the patient can go home the same day.

In some cases, a needle technique is used to extract sperm for use in ICSI. This is suitable for men who have had a previous vasectomy (sterilisation) and in men where prior diagnosis is available showing viable mature sperm production in the testes.







EGG AND SPERM DONOR PROGRAMME

We offer both an egg and sperm donor programme.

All donors are screened for relevant parthologies like HIV, Hepatitis B, Hepatitis C and infectious diseases such as sexually transimitted diseases. The blood group of the recipient or their partner is matched with that of a donor.

Donors are healthy, non smoking individuals who are below 30 years of age for ladies who already have at least one child and men between the ages of 25-40 years who do not have any genetic risk factor.

Confidentiality of Donors and Recipient is maintained throughout the treatment and anonymity of the donors is guaranteed.

Individuals who would like to become egg or sperm donors can contact our nurses for the procedure to be explained to them.



INSEMINATION WITH DONOR SPERM

Donor sperm is available as a form of fertility treatment when the male partner has a very low sperm count, or no sperm at all (azoospermia) or for a single women wanting to have children.

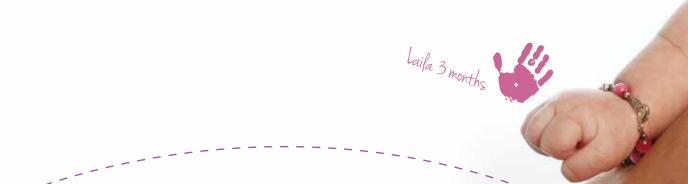
EGG DONATION

Egg donation is the only option for women who have stopped producing eggs. Failure of ovaries can be caused by radiotherapy, chemotherapy, surgery, endometriosis or genetic problems resulting in premature menopause.

This insufficiency of the ovaries can also be caused by age and egg donation is the best solution for these ladies and for those whose eggs are of poor quality.

Egg donors undergo ovarian stimulation, ultrasound monitoring and egg collection as described in the section on IVF. The recipient's cycle is synchronised with the donor's cycle, with the help of Estrogen tablets and Progesterone in order to prepare the endometrium to receive embryos. The endometrial thickness is monitored by ultrasound scans.

To ensure that there is no problem with your endometrium, it is possible that Dr. Murage will advise that you undergo a "Dummy Run" 2 or 3 months before your treatment. During this, close monitoring of the endometrium is carried out while you take Estrogen tablets and Progesterone, and an endometrial biopsy maybe done and sent to the lab to confirm good development of the endometrium.





RISKS

Fertility treatments can sometimes lead to complications and we try to avoid any complications by taking specific precautions.

OVARIAN HYPER-STIMULATION SYNDROME (OHSS)

This is a rare but serious complication when fertility drugs are used and too many follicles develop in the ovary. The ovaries become very large and are surrounded by fluid, and this may cause nausea and vomiting. The loss of fluid in this way may lead to dehydration and decrease the urine output. If you feel that you are developing abdominal swelling after the egg collection, please call the Centre to attend for a check-up.

BI FFDING

Any surgical procedure carries the risk of bleeding and we avoid this by using a very thin needle for the egg collection procedure. You may expect a small amount of vaginal bleeding on the day of egg recovery which should stop after a couple of days. If the bleeding becomes heavier, or is accompanied by pain, please contact the Centre.

INFECTION

Risks of infection are quite small with the procedure related to treatment of infertility. We use antiseptic solution before the egg recovery to lower the risk of infection and one dose of intravenous antibiotics is also administered during the procedure.

MUITIPI F BIRTHS

Multiple births are a risk of fertility treatment when 2 or 3 embryos are replaced. There is increased fatigue, and physical exhaustion of the mother, increased risk of hypertension, of bleeding and of premature delivery. Antenatal admissions are common, for rest and observation, especially with triplets. Our aim is a problem-free pregnancy, for mother and baby. The possibility and risks of multiple pregnancy are discussed with each couple prior to embryo transfer.

COMPLAINTS

Our aim is to maintain the highest standards of care and to continually improve on our standards. Should you have any suggestions for improvement or wish to make a complaint regarding your treatment, please do not hesitate to contact us.

EMERGENCY COVER

The Harley Street Fertility Centre Kenya is open for appointments: Monday to Saturday from 09:00 hrs to 17:00 hrs.

After hours, in case of emergency or urgency, please contact us on (254) 738 684 705 or email us at nurse@hsfckenya.com.