



Vitalab Journey

Patient information booklet

Welcome to Vitalab Centre for Assisted Conception and thank you for choosing this clinic to assist you in completing your family. Vitalab has been helping patients conceive for over 31 years.

Please take a few minutes to read through this brochure. It will help familiarise you with the routines of our clinic. The time spent will make the time you spend with us as easy and uncomplicated as possible.



Office Hours:

- Monday: 07h00 to 17h00
- Tuesday: 07h00 to 16h00
- Wednesday: 07h00 to 15h00
- Thursdays: 07h00 to 17h00
- Fridays: 07h00 to 14h00
- Saturdays: 07h00 to 08h00
for IVF/ICSI scans only



Address:

Vitalab is situated on the First and Second Floors of The Inner Circle Building, 159 Rivonia Rd. The building is directly in front of the Sinosteel Building, adjacent to the Mc Donalds corner of Rivonia Rd. and Grayston Drive.

Upon Arrival:

- Parking is in the basement of the Inner Circle Building. Please take the lift up to the second floor and turn right on arrival to enter Reception.
- Please introduce yourself to one of the receptionist upon arriving at the clinic. This includes all new patients as well as existing patients. Please be sure to state the reason for your visit, i.e. a doctors or nurse consultation or investigations etc.
- Please remember that failing to report to reception and just taking a seat in the waiting area

may lead to unnecessary frustration and waiting time.

- Once you have reported to reception, please kindly take a seat in the reception area and help yourself to the complimentary coffee/tea and something to eat.
- A staff member will attend to you shortly to guide/escort you to your scheduled appointment.

Doctor's Appointment:

- If you have a doctor's appointment, a nurse will escort you to the consulting room where you will be met and welcomed.
- The appointment with the attending doctor will include a detailed history and clinical and internal ultrasound examination
- Following the examination, you will return to the office at which time the findings, implications and options available for your specific circumstances will be discussed in detail with you by the doctor.
- Any special investigations deemed necessary will be explained and discussed with you in detail.
- The whole consultation will last approximately 45 to 60 minutes.
- At the end of the consultation you will be escorted back to the main reception area where you



will be seen to by one of our nurses/program coordinators.

Program Coordinator's/Nurses' Appointment

- At the end of the consultation with the doctor you will be seen by one of our nurses/program coordinators
- Here you will get the opportunity to ask any questions that you may have regarding the plan of action as discussed with you by your doctor.
- The nursing staff will then explain the next step in your treatment plan which will generally consist of performing all the required special investigations, i.e. booking a semen analysis, a dye test of the uterus(HSG) or show you where to go to have blood drawn for any required tests.
- Please ensure that you arrange for a follow up appointment at the reception desk as recommended by either the doctor or one of the nursing staff, before you leave the clinic.

Accounts:

- Please note that Vitalab is a "fee for service" practice and is not contracted to any medical aid.
- All accounts must be settled on

the day of your visit before you leave from the clinic.

An invoice will be issued to you with the correct ICD 10 code will be provided in order for you to claim back from your Medical Aid.

- Our reception staff/nursing staff will guide you to the accounts department at the end of your visit which is adjacent to the reception area.

Follow Up Visits:

- The routine for follow up visits is exactly the same as for new cases
- During your follow up visit all results and their implications thereof will be discussed with you in detail and the next phase of you treatment plan will be put into action.

Dye Test (HSG):

- A separate information leaflet describing what the procedure entails and what to expect will be sent to you via e-mail by our radiographer.
- Please read this carefully and do not hesitate to ask any question that you may have on the procedure
- Please be sure to report any IODINE allergy to the nursing coordinator and radiographer PRIOR to having the dye test performed. If you are allergic to either iodine and or Shell Fish, you will be given a prescription for Cortisone to be taken the day prior to the procedure.
- HSG's are performed on Tuesday, Thursday and Friday on an appointment basis. It is performed on a first come first served basis on



the day of your booked appointment between 8:30 and 9:30 am. No anaesthetic is required.

You may have a bloody sticky discharge afterwards. There may be some mild cramping afterwards for which you may take anti-inflammatories. You will be able to drive your car and return to work on the day of the procedure

Semen Analysis:

Semen analysis at Vitalab is performed using a state of the art computer assisted method referred to as a CASA semen analysis

- The analysis differs from the conventionally used method by not only looking at the number, shape and movement of sperm, but more importantly evaluating how the sperm functions regarding its ability to penetrate cervical mucous and it's ability to fertilize an egg. This is referred to as "sperm function" tests
- Kindly ensure that semen analyses (SFA or ICSI Prep) are booked with Janita at the andrology department within the clinic. Janita can be found at reception in the IVF suite on the first floor. (Turn left from exiting the lift)
- Please note that NO sperm analysis will be performed by the andrologist without a prior appointment.
- As an accredited unit Vitalab has protocols in place to ensure quality control at all times. We therefore require that blood will be taken to test for Hepatitis B and Hepatitis C and HIV before per-

forming any assessment of sperm. All patients are evaluated and treated at Vitalab irrespective of the outcome of these blood test. These blood tests remain current for Vitalab for one year.

- You will be asked to complete a questionnaire prior to production of the specimen which accompanies the specimen to the Andrologist.
- Kindly note that ALL samples for analysis must be produced on site in one of the dedicated private rooms in the IVF Suite, on the first floor of the clinic. (Turn left on exiting lift on first floor)
- The sample must be handed in for assessment immediately after production.

Blood Tests:

- We have laboratories on site for the taking of blood samples.
- This ensures patient convenience and expediting availability of results.
- Lancet Laboratories and Ampath are conveniently located



on the first and ground floors respectively and will be pointed out to you by the nursing or reception staff.

Different IVF Stimulation Protocols:

Many patients have become aware of different stimulation protocols on the Internet or from talking to friends, and they are very curious as to why we would choose one protocol over another.



During your consultation the rationale behind stimulation as well as why one protocol may be better than another in your particular situation will be explained.

Ovarian stimulation is a very complex process, and there are many variables, mostly related to the patient's specific circumstances, that can have a significant impact on the ultimate outcome. In a natural cycle, many oocytes begin to develop and only one matures. When stimulating for IVF/ICSI the exact number that develop, depends on many factors including the patient's age, her hormonal "status", and the overall health of her ovaries.

Usually, older patients have fewer remaining eggs than younger patients, so they would be expected to develop fewer eggs.

In addition, patients who have undergone previous ovarian surgery or those who have active ovarian diseases, such as ovarian cysts or endometriosis, do not make as many eggs as they otherwise could.

Despite the fact that there are many differences between the more commonly used IVF stimulation protocols, there are also normally many similarities. For example, almost all modern protocols start with 3-4 weeks of birth control pills (BCPs). Although this may sound counter-intuitive, there are actually several very good reasons for starting stimulation following a cycle of the contraceptive pill.

The eggs in the ovaries of a typical reproductive age woman are in various stages of development. If one were to start stimulation without first taking BCPs, fewer of those eggs would actually develop. It has been shown by several investigators that BCPs actually help the eggs synchronize their development, so that when the pills are stopped and the stimulation medications are begun, more eggs are ready to respond. This results in a greater number of mature oocytes at the time of retrieval, as well as higher fertilization rates when compared to women who undergo stimulation without taking pills first.

In addition to BCPs, there are four other classes of medications that



make up the foundation of a stimulation protocol:

- Gonadotropins (FSH / LH) to stimulate the eggs to develop
- A gonadotropin releasing hormone (GnRH) agonist (Lucrin) or antagonist (Cetrotide) to prevent premature ovulation
- Medication to cause the eggs to mature (Pregnyl or Lucrin) administered 36 – 38 hours prior to egg retrieval
- Progesterone and estrogen to support the uterine lining after embryo transfer

How these medications are administered defines the actual stimulation protocol itself and this will be discussed with you by both the doctor and a Coordinator.

Egg Retrievals:

- All egg retrieval procedures are performed under “conscious sedation” in the IVF theatre suite adjacent to the laboratory. A clean theatre gown will be supplied so there is no need to bring your own. Please ensure that you fast from midnight the night before the retrieval and that you come to the unit with no nail polish and no perfume applied that morning.
- Conscious sedation entails having a drip with medication

administered leading to a deep sleep

- Please be reassured that the retrieval is absolutely painless and takes approximately 10 to 15 minutes.
- You will wake up in the ward after the retrieval of the eggs, literally “none the wiser”
- Be sure to check the back of your hand for the “smiley face” and the number of eggs that were successfully retrieved.
- Once fully awake and having successfully passed urine, you will be allowed to go home.
- Please note that you are not allowed to drive yourself home after the retrieval. Arrangements must be made for someone to drive you back home where you should be spending the rest of the day relaxing.

Fertilisation and Embryo Development:

As the eggs are retrieved, they are identified by the embryologist and placed in an incubator to avoid exposure to light, temperature and pH changes. Brief notes are made on the condition of the eggs. Normally two-thirds to three-fourths of the eggs will be mature and ready to be inseminated (IVF) or injected by Intracytoplasmic

Sperm Injection (ICSI).

Prior to egg retrieval, a sperm sample is collected from the male partner or taken from the freezer and processed by density gradient washing techniques. This process allows us to collect the most viable sperm to be used for insemination or ICSI.

The day after retrieval, called day 1, begins with the assessment of fertilization and the separation of those normally fertilized eggs. Cell division or cleaving will occur after the intermingling of the chromosomes overnight. We typically see the second cleavage division from a two cell to a four cell embryo on day 2. Embryos will be assessed on days 1, 2 and 3 and placed into blastocyst media until day 5 or 6. The embryos are not assessed on day 4, as they look very much the same. This phase is known as the compacting / morula phase.

The embryologist will “ Call SMS or Email” daily to give you an update on the development except on day 4.

Identification and Handling of Sperm, Eggs, and Embryos for IVF at Vitalab:

We make every effort to assure couples that the eggs, sperm, and embryos in our possession in the laboratory are always handled with trust, respect, expertise, and care. Our labeling process and a series of checks and balances are designed to ensure matching you to your eggs, sperm, and embryos.

This is a constant priority throughout the IVF/ICSI process at Vitalab.

Freeze All Embryos IVF Cycles and Preimplantation Genetic Screening (PGS)

In a traditional in vitro fertilization (IVF) cycle, eggs are fertilized the day of the egg retrieval and the fertilized eggs (embryos) grow in the laboratory until the most appropriate embryos are transferred five days after the egg retrieval. This is referred to as a “fresh” transfer.

Some patients who undergo ovarian stimulation for IVF/ICSI do not have a fresh transfer of the embryos five days after the egg retrieval. This is referred to as a “freeze all” where the good quality embryos that are produced are frozen. When there is a planned or unexpected “freeze all” embryos cycle, the developing embryos are frozen by a process called Vitrification and stored until they are transferred at a later time.

In the past we preferred to perform fresh embryo transfers for most patients because the embryos had a better chance



of implanting and developing into a baby than frozen embryos did due to less than adequate freezing technology. However, for the past 3 years techniques for freezing and transferring the embryos have improved so much that frozen embryos now have a better chance of implanting than fresh embryos.

Some of the reasons for freezing all of the embryos for a later transfer.

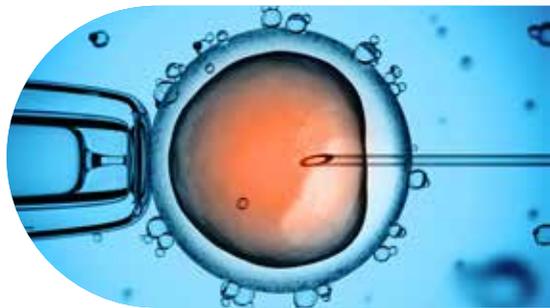
- Planned storage of embryos prior to receiving medical treatment, such as Chemotherapy for cancer that can affect future fertility by damaging the eggs in the ovaries. This can also be done for eggs if you are not ready to make embryos.

- To prevent the risk of developing ovarian hyper stimulation syndrome (OHSS) in patients that have developed many follicles and have a high estradiol level. Ovarian stimulation syndrome is a potentially dangerous condition that is increased and worsened when a patient becomes pregnant. By freezing the embryos and transferring them after the ovaries are no longer stimulated reduces the chances of this condition to almost zero.

- Pre-implantation Genetic Screening (PGS)
Some patients choose to have their embryos tested to see if they have a normal set of chro-

mosomes. This testing can be done on embryos by removing a small portion of the embryo, not affecting the embryo, and testing the genes in the cells. A high percentage of human embryos are chromosomally abnormal. The process allows only the genetically normal embryos to be replaced with a significantly higher ongoing pregnancy rate rather than just selecting the embryos on how they look down a microscope.

- Doctor or patient preference.
In some patients we at Vitalab recommend that patients plan to freeze all the appropriate embryos because we think they have a better chance of implanting and developing into a baby than



embryos transferred in a “fresh” cycle. There is a concern that the high hormone levels associated with ovarian stimulation might affect the lining of the uterus, making it less likely to for the transferred embryos to implant. We see this particularly in patients who develop higher progesterone levels earlier in the ovarian stimulation cycle.

Embryo Transfers:

- Your embryology will be discussed with you by one of our highly qualified embryologists prior to the transfer. This will give you the opportunity to ask any questions and at that time you will be informed as to how many embryos are available for transfer and if possible to freeze for later use.
- The transferring of the embryos back into the uterus is a very special occasion. It is one that should be remembered and cherished as such.
- On entering the Embryo Transfer Theatre you will be requested to identify yourself by your first name and surname and the embryologist will confirm your date of birth.
- The transfer procedure is completely painless and takes place with a full bladder under ultrasound guidance.
- The procedure takes approximately 10 minutes.
- After transfer patients are encouraged to carry on with life

- After the transfer procedure has taken place you will return to the ward where you will receive a further set of instructions on how to use the medication for the next 2 weeks leading up to the pregnancy test.

Pregnancy:

12 to 14 days after the embryo transfer, a quantitative pregnancy hormone blood test will be performed. Once positive, you will receive further instructions regarding continuation of the medication together with a repeat pregnancy hormone blood test either 2 days or 4 days after the first test. Importantly, once you receive the first positive blood test, you are 4 weeks pregnant based on menstrual and not conceptional age. A scan will be booked for you at 7 weeks with a Vitalab practitioner and thereafter you will be seen by a general obstetrician of your choice. Vitalab **does not** recommend specific Obstetricians.

Bleeding in early Pregnancy:

- Bleeding in early pregnancy can be extremely distressing
- Bleeding in early pregnancy is however reasonably common and does not necessarily indicate an early pregnancy loss.
- In case of an early bleeding episode in pregnancy we advise that you try and stay calm, to continue with the medication as prescribed and to either contact or visit the clinic in the morning for further reassurance

as normal. Transferred embryos cannot move around in the uterus and cannot fall out of the uterus as many unfounded myths would lead people to believe.



and guidance.

- We discourage a visit to the local emergency room as we know from experience that it is very distressing to patients and due to the fact that unfortunately nothing can be done during these early weeks of any pregnancy to ultimately change the outcome. Rather stay at home, take it easy and contact us in the morning.

Embryo Freezing:

- If an embryo progresses appropriately to the blastocyst stage it can be frozen. It is important to remember that developing to the blastocyst stage is not a guarantee of it being normal and capable of making a baby. In fact 40% of appropriate looking blastocysts may still be genetically abnormal. The data from Vitalab's PGS (Embryo Biopsy) experience, bears this out. We do not freeze an embryo just because it is there because we do not want to give false hope, even though we will

before freezing the embryo may be a way to increase the chance that the frozen embryos are actually worth transferring at a later stage.

- Should any embryos be available for freezing, you will be informed of the costs by the accounts department. There is no shelf life for embryos once frozen.

Counselling Department:

- Having difficulty with conception can be very distressing emotionally.
- Therefore Vitalab offers an in-house counselling service which is located on the 6th floor of the Sinosteel building at the back of Vitalab.
- The counselling department is staffed by highly qualified counsellors and is available to all our patients who feel the need for counselling and support as they move through the process of conceiving. Couples on the IVF/ICSI/ Egg Donation programme are requested to see the counsellors up to 3 occasions at no charge to them.
- The contract details for the counselling department can be obtained from any of the staff members at reception.

VEDA (Vitalab Egg Donation Agency)

- Vitalab has an in-house egg donation agency for patients that are in need of egg donation

err on giving the embryo the benefit of the doubt. Doing PGS



to conceive.

- They are situated on the 6th floor of the Sinosteel building behind Vitalab.
- The contact person at VEDA is Calista Hardwick who can be reached via e-mail at calistah@vitalab.com for further information.

Egg Freezing at Vitalab (Vitalab Egg Bank):

Egg freezing can be beneficial for a number of reasons for women wishing to preserve their fertility for the future including:

- Women who want or need to delay childbearing in order to pursue educational, career or other personal goals.
 - Women diagnosed with cancer.
- Women with objections to storing frozen embryos for religious and/or moral reasons.

For the last 30 years egg donation has been performed almost exclusively using fresh eggs from young egg donors.

- The donors were chosen by a recipient couple and stimulated to produce multiple eggs.
- The eggs were retrieved and fertilized with the male partners sperm with the resulting fresh embryos transferred to the recipient female.
- Remaining embryos would be frozen for future frozen embryo transfer procedures (if needed).

This is still the way the majority of egg donation cycles are done in South Africa and around the world. However, in recent years advances in egg freezing technol-

ogy have allowed the option of using frozen instead of fresh eggs.

Vitalab now offers egg donation using frozen (vitrified) donor eggs. We have been providing fresh donor egg treatments since 1990. Vitalab is the only successful Frozen Egg Bank in Africa and we do egg donation using either fresh or frozen eggs. The frozen egg pregnancy rates are as good as fresh egg donation treatment cycles with the advantage that the eggs are already available for the recipient and time to treatment is much quicker and less costly because a broker agency fee is not involved.

To date, more than 5,000 babies have been born from frozen eggs. The largest published study of over 900 babies from frozen eggs showed no increased rate of birth defects or chromosomal defects between embryos derived from frozen eggs compared to embryos derived from fresh eggs. Pregnancy complications are not increased after egg freezing.

For further information contact info@vitalab.com

Freezing of sperm at Vitalab (VCSA):

Sperm freezing in the Vitalab Andrology Unit is performed by programmed slow freezing. Slow freezing of sperm has a significantly higher survival and motility rate compared to Vitrification method (Rapid Freeze Technique).

Slow freezing is a better method to maintain motility of spermatozoa following cryopreservation. Please be assured that at Vitalab we make your journey, whatever the outcome may be, an enjoyable and memorable one. Please do not hesitate to contact any of for any assistance that you may think we can offer. Our practice manager, Lynn Frylink, is also available to hear about any comments or suggestions you may have that may help us streamline and improve our patient service and care even further.

The Centre for Gynaecological Endoscopy (CGE)

Vitalab has its own same day surgical unit CGE. Hysteroscopy and Laparoscopy are effective and safe tools in comprehensive evaluation of infertility, particularly for detecting peritoneal endometriosis, adnexal adhesions, and septum, fibroids and polyps in the uterus. These are correctable abnormalities that are unfortunately missed by routine pelvic examination and usual imaging procedures.

Needless to emphasize that, it is a very useful tool that can detect various structural abnormalities in multiple sites like pelvis, tubes, and the uterus in the same sitting in patients with normal ovulation and semen analysis. When done by experienced hands and with proper selection of patients and

for definitive indications, hysteroscopy alone or in combination with laparoscopy can be considered as a definitive therapeutic day-care procedure for evaluation and management of female infertility. This may help in formulating a specific plan of management for certain patients.

Kind regards



The Vitalab Team

For more information or if you would like to set up an appointment, please contact us:

-  011 911 4700 / 0861 VTA LAB (882522)
-  info@vitalab.com
-  www.vitalab.com
-  Inner Circle Building, 159 Rivonia Road, Morningside, Johannesburg.
-  Vitalab
-  VitalabSA
-  Vitalab