

Intrauterine Insemination (IUI)

IUI, sometimes referred to as Artificial Insemination (AI) can be used as a treatment for many causes of infertility, provided you can produce an egg, a reasonable quality semen test and there is at least one fallopian tube working. However, depending on the cause(s) of infertility there can be other treatments that might also be successful. Disorders of egg production can be treated with a variety of medicines to bring on ovulation. Surgery might be an option for some forms of Fallopian tube problems. More severe abnormalities of semen, or blocked tubes are best treated with IVF. If you aren't clear about why IUI is the best option for you at this present point in time, discuss your specific situation with your specialist or nurse.

IUI has the advantage of lower costs than most other forms of treatment. It is less intrusive than IVF. The disadvantages compared with IVF include the lower success rate.

IUI stands for Intra Uterine Insemination - which literally means that sperm are placed inside the uterus. Insemination was beginning to be used as early as 1780 in the animal world. The technique has been refined and the success rates of treatment have increased greatly since the early days. IUI is still undergoing a process of evolution to try to maximize pregnancy rates, minimize the risks and make it as easy as possible for couples.

The basic steps

In order to achieve a pregnancy, you need to produce one or more eggs, and have a reasonable quality semen sample. Sometimes your doctor may be prescribed medications to stimulate the ovary to produce eggs if there is a problem with this, or to produce more than one egg in order to improve the chances of success.

You should be monitored during your cycle using ultrasound scans, blood tests and/or urine tests to see how you are responding during the cycle which will give you the best chance of a successful outcome.

Semen collection is done by masturbation, and the sample delivered to the laboratory on the day of the planned insemination within 1 hour of being produced. Sometimes after the insemination you may be asked to take additional hormone treatments to help support the lining of the uterus so that it is suitable for a developing embryo to implant in.

Stimulation

If you have no trouble with egg production (and ovulation) then you may not need to use any medications. The most commonly used medicine for stimulation purposes is Clomiphene Citrate (Clomid), which gently stimulates the ovary to produce an egg, or more than one egg and Letrozole which works very similar to Clomid.

Even if you ovulate on your own, it might be recommended that you use Clomiphene to improve your chance of success.

Occasionally Clomiphene is not able to bring on ovulation. In these situations your doctor will discuss your choices with you. These choices may include - ovarian drilling surgery, Metformin therapy, or Follicle Stimulating Hormone (FSH) injections. Women with polycystic ovary syndrome who don't respond to Clomiphene often will benefit from ovarian drilling surgery. This is a laparoscopic procedure that involves making a small cut in the navel and inserting a telescope so that the internal organs including the ovaries can be seen. Other small cuts are made to insert additional instruments and a number of small holes are made in the surface of the ovary using an electric current (diathermy). This can result in women being able to ovulate on their own, or at least make them respond better to Clomiphene.

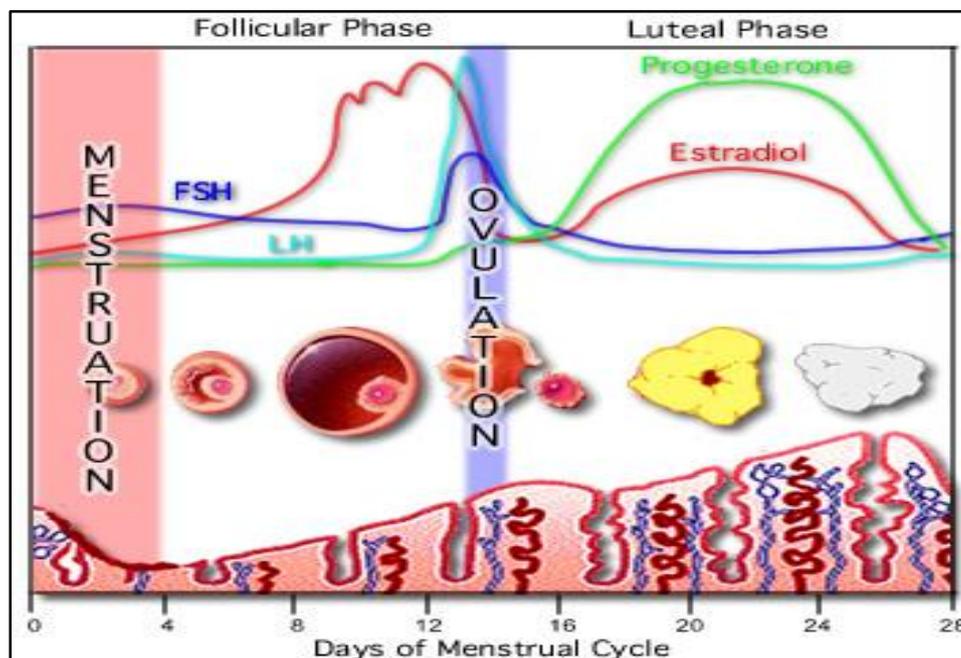
Also for women with polycystic ovary syndrome, a medication called Metformin can be used in addition to Clomiphene to help the Clomiphene to work more effectively.

If neither of these is appropriate or they haven't worked then stimulation of the ovary can be carried out using a low daily dose of follicle stimulating hormone (FSH) given as an injection. This is the same hormone used in IVF, but is used in a much lower dose so that only one or 2 follicles develop.

Monitoring

Each woman's cycle is different each month, whether we are using medicines to stimulate the cycle or not. Hence it is important that you are monitored on how you are responding.

If your doctor is using your own natural cycle, then at the very least you should be testing your urine for leuteinizing hormone so ovulation can be determined. For stimulated cycles a combination of blood tests and ultrasound scans can be used for monitoring. The blood tests are looking at your oestradiol (female hormone) level, which is produced by the ovary and the hormone LH which indicates when you are about to ovulate. Overall this can provide some idea about what is happening in terms of egg production.



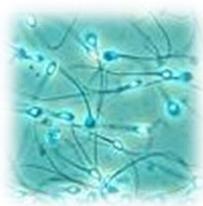
The ultrasound scans are done as transvaginal procedures. When performing an ultrasound scan we are looking for collections of fluid that appear on the ovary called follicles. Generally each follicle will be home to one egg, never more. We can count how many there are, and measure how big they are. Once the follicle is at least 18 mm in size the eggs are generally ready for ovulation.

Trigger Shot

Once your ultrasound confirms the presence of one or two mature follicles, we can then either commence urine testing for leuteinizing hormone (LH) to pick when you are ovulating or more commonly we will give you an injection of LH so that we know exactly when your most fertile will be. This is often referred to as a “trigger” shot. The insemination is then planned for the same day as the LH surge or trigger shot and at the very latest the following day.



Semen Preparation

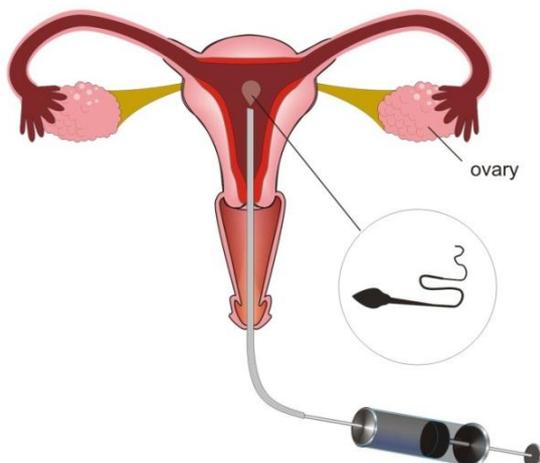


If you are using your partners’ sperm for the insemination then we will require the sample to the laboratory about 1 ½ hours before the scheduled time for your insemination. Our scientists will then assess the quality of the sample and compare it with any previous samples.

Any sperm that are not moving vigorously are washed out of the sample, along with some chemicals normally found in semen that can cause strong cramping in the uterus. The remaining sperm are concentrated into a very small volume of culture medium ready to be used for the insemination. **This process takes around 2 hours.**

Insemination Procedure

Controlled Ovarian Hyperstimulation (COH)
Intra-Uterine Insemination (IUI)



Placing the prepared seme sample into your uterus is generally a straight forward procedure that will happen at the clinic. In fact it is very similar to having a pap smear. A warmed speculum is placed in the vagina so that the cervix (neck of the womb) can be seen. A thin tube is passed through the cervix into the lower part of the uterus and the sample is injected into the uterus. The speculum is then removed and you are free to get dressed. After the procedure you may find that some of the sample leaks back out again-**THIS IS NORMAL**. Don’t panic, this happens to everyone and doesn’t affect your chances of success. The clinic should provide you with a panty liner to wear to make the after procedure time more comfortable.

Affordable IVF does not currently offer this treatment, you will be referred to our parent company Fertility Solutions Sunshine Coast if this is what you need.