

Infertility

Infertility is defined as a diminished ability to conceive after one year of unprotected sex in women under 35 or the inability to carry a pregnancy to term. It is thought to affect one in six UK couples but the age of the woman is important given that fertility declines, especially after the age of 40. There is a waiting period for medical intervention most couples unless they have known barriers to fertility such as endometriosis, polycystic ovarian syndrome, male factor infertility, irregular cycles, etc. Younger couples are encouraged to wait up to two years before seeking medical intervention while women older than 35 should wait no longer than six months.

Causes of Subfertility

The complex processes of fertilization and egg and sperm production create many opportunities for something to go wrong. Of the couples who have difficulty conceiving the problem is found to lie with the woman for about 40% of cases and with the man a third of the time. In the remaining cases either both partners have fertility problems or the cause cannot be found. In women, infertility is most frequently caused by the inability to produce eggs, blocked or damaged fallopian tubes, uterine problems such as endometriosis or structural abnormalities of the vagina or cervix. In the man, there may be low numbers of sperm or poorly functioning sperm, testicular failure or tubal blockage. A cause cannot be identified in about one in five cases. However, some causes include having a flu-like illness, infections of the genital tract, hormonal abnormalities, genetic abnormalities, hernia repair or problems with lifestyle to include heavy smoking and drinking, recreational drugs and anabolic steroid abuse, all of which can have an effect on sperm production.

Getting help

Your GP may refer you directly for investigation and treatment or start a number of simple investigations. These usually include a sperm count for your partner and blood tests for you (baseline hormone to assess ovarian reserve and day 21 progesterone levels to assess ovulation) to see if

you are producing eggs (ovulating). The timing of this test is important and depends on the length of your cycle. For the average 28 day cycle the hormone level estimation should be carried out 21 days after the first day of a period. If the results are abnormal, further blood tests and a scan may be performed to see why you are not releasing eggs regularly. If you need to be referred to the hospital they will need to test to see if your tubes are open. Three tests are available to check your tubes: an ultrasound scan, an X-ray (HSG-hysterosalpingogram, Hycose examination) or a laparoscopy and dye test. This last test provides the most information, but requires a general anaesthetic. This procedure involves inserting a telescope into your abdomen through a tiny cut beneath your belly button. A camera is fixed to the other end and your womb, tubes and ovaries can be viewed. A number of factors will determine which test you are offered. Prior to any of these tests a test for Chlamydia will be done.

Various kinds of treatment are available for infertility.

Trouble producing eggs

Ovulation induction can be used as a treatment option on its own or in conjunction with other infertility treatments such as artificial insemination. Clomifene and tamoxifen are traditionally used to stimulate ovulation in women with infrequent or irregular periods by inducing the release of gonadotropins and tricking the hypothalamus into believing that oestrogen levels are too low. This treatment is very effective in most women but can cause multiple pregnancies.

Hormonal Therapy

This treatment is for non-ovulating women who do not respond to clomifene or have hormonal imbalances. Gonadotroine treatment acts to replace or enhance the hormones produced naturally in the body. This treatment can also be used as super ovulation therapy for assisted conception procedures such as IVF.



Assisted conception or assisted reproductive techniques

These techniques involve stimulating your ovaries, usually with injections, to aid fertilization and implantation.

Intrauterine insemination (IUI)

Stimulation of the ovaries is carried out with tablets or injections and monitored very closely by ultrasound. When there are two ripe follicles which contain the eggs and the lining of the womb is thick enough, another injection is given to release the eggs. Alternatively ovulation may be timed using ovulation predictor kits. Shortly after, the prepared sperm is injected gently into the inside of the womb by passing a very fine tube through the neck of the womb. This is a very simple and painless technique and most hospitals are able to offer this procedure.

In-vitro fertilisation (IVF)

A series of injections is given to suppress the hormones that produce eggs in the patient then a series of injections are given in addition to stimulate the ovaries and on this occasion the aim is to produce numerous eggs monitored by ultrasound scanning. A very fine needle is passed into the ovaries and the eggs are collected. The prepared sperm is then placed on the eggs and hopefully fertilisation occurs. The best embryo/s are then placed back in the womb after about 48 hours or in certain situations at a later time. In most laboratories there are facilities for freezing the remainder of the fertilised eggs so that these can be used at a later date if necessary.

Artificial insemination

The sperm are collected, processed and washed and then inserted directly into the uterus, cervical canal or vagina. Intrauterine insemination is the most common form of AI, but all forms increase the chance of fertilisation. AI can also be performed with donor sperm where necessary.

Intracytoplasmic sperm injection (ICSI)

This laboratory technique is now commonly used where the sperm count is low or there are many abnormal sperms. It involves a very technical procedure in which a single sperm is placed inside an egg to fertilise it. Most IVF centres have this facility and it is highly successful. Once the eggs are fertilised they are placed back in the womb as in IVF. Other treatments of male subfertility are not very successful and in the majority of cases ICSI is the preferred choice.

Counselling

Investigation and treatments for subfertility are often very stressful for a couple. In the initial phases it is very important not to concentrate on one particular time of the month in which to have intercourse. Sperm compatible mucus from the neck of the womb lasts for 5 days and sperm will survive for at least 5 days and therefore regular intercourse twice a week will ensure that the sperm will get to the right place. If you feel stressed then different forms of alternative medicine may be the answer such as hypnotherapy, acupuncture, aromatherapy etc. Most large infertility clinics do have a counsellor and it is certainly worth seeing them particularly if you are going to have a form of assisted conception.

Useful contacts**Infertility Network**

Charter House, 43 St Leonards Road, Bexhill on Sea,
East Sussex TN40 1JA
Tel: 0800 008 7464
Website: www.infertilitynetworkuk.com

Human fertilization and Embryology Authority

www.hfea.gov.uk

This factsheet has been produced by Women's Health Concern and reviewed by members of our Medical Advisory Panel.

It is for your information and advice and should be used in consultation with your own medical practitioner. **Updated: March 2010.**