



# **Fertility issues**

These consultations can be divided into:

- 1. Preconception counselling
- 2. Primary infertility
- 3. Secondary infertility
- 4. Surgery for infertility
- 5. Recurrent miscarriages
- 6. Assisted fertilisation
- 7. Genetic counselling

### **Preconception counselling**

This usually involves a thorough history including medical, surgical and family history as well as an examination and discussion about natural family planning with the use of the calendar and ovulation kits. There may be an ultrasound and some blood tests. Ninety percent of patients will conceive after 12 months of trying and investigations can be delayed until this time if the menstrual cycle is regular. If the menstrual cycle is irregular or infrequent then investigation should begin after 6 months. Patients with delayed onset of periods or those with Polycystic Ovarian Syndrome would be investigated as soon as they start trying to conceive.

#### **Primary infertility**

This refers to couples who are unable to conceive after 12 months of actively trying. In most cases these couples are found to be completely normal and called normal subfertiles. These couples are investigated with blood tests to exclude any chronic disease as well as a full series of endocrine or hormonal tests to detect conditions like simple lack of ovulation or the very common Polycystic Ovarian disease with its infrequent periods and signs of excess testosterone causing acne and unwanted hair growth usually on the face. These patients may have insulin resistance or even diabetes with associated increase in their body mass index.

Sometimes small pituitary tumours secreting high levels of prolactin (hyperprolactinaemia) can be the cause of the problem. There can be a history of Pelvic Inflammatory disease or previous surgery particularly for endometriosis than can implicate a tubal problem. This may require a special type of ultrasound. These patients may require a laparoscopy and dye testing to make the diagnosis as will those women with painful periods or abnormal pelvic pain who may need to have endometriosis diagnosed and treated surgically.

**Male infertility** can be suggested by a history of trauma to the testes or of childhood mumps causing which has caused painful testicular swelling. Previous sexually transmitted disease may also cause and abnormal semen analysis which is a required baseline test.

Sometimes ultrasound, laparoscopy or hysteroscopy can diagnose fibroids or congenital abnormalities of the lower genital tract that need to be addressed surgically

## Secondary infertility

This is the inability to carry a baby to term after the previous birth of one or more biological children in the past. This does not include miscarriages.

The causes and treatments are similar to those above. This can be caused by damage to the tubes once again and hormonal problems including those that cause ovulation issues like high prolactin levels, diabetes and polycystic ovarian disease. Endometriosis may still require treatment. Impaired sperm production may once again be an issue. There may be complications related to previous pregnancies that may be a relevant factor including genetic problems.

## Surgery for infertility

Conditions treated almost always using a minimally invasive technique (laparoscopy or hysteroscopy) may include:

- 1. Tubal disease requiring laparoscopic adhesiolysis
- 2. Intrauterine adhesions requiring hysteroscopic adhesiolysis
- 3. Uterine fibroids requiring hysteroscopic or laparoscopic myomectomy
- 4. Endometriosis requiring excision of disease

# **Recurrent miscarriage**

Around 15% of pregnancies end in miscarriage and most of these are due to natural selection of healthy embryos in the first trimester. The prognosis is still excellent for a normal take home baby in the next pregnancy. Around 2% of patients will have 3 consecutive pregnancy losses and require further investigation. These may be caused by hormonal imbalances, chronic medical conditions, chromosome and genetic abnormalities, uterine abnormalities, abnormalities of the blood clotting process and system immune.

# **Assisted Fertilisation**

Patients need to be extensively investigated before this is necessary.

Conditions which may require referral for IVF include:

- 1. Blocked or absent tubes
- 2. Male subfertility
- Lack of ovulation despite oral ovulation induction medication and treatment for Polycystic Ovary disease
- 4. Genetic problems that may require the selection of an embryo that is genetically healthy and free of any chromosomal abnormalities like Cystic fibrosis. It may also be used for patients who have recurrent miscarriages. This is called Pre-implantation Genetic Diagnosis or PGD

### **Genetic counselling**

General advice is given in relation to the more common conditions. More complex genetic issues are managed by tertiary referral to specific genetic counsellors usually associated with IVF units