

**Your guide to infertility**

**HFEA Directory of Clinics 2003/04**

## **Welcome**

I am very happy to introduce this first edition of Your Guide to Infertility - the HFEA Directory of Clinics 2003/04, a resource designed specifically for use by couples and women seeking fertility treatment in the UK.

The aim of this Directory is to provide an overview of the HFEA's responsibilities as regulator of fertility services in the UK, but more importantly to provide answers to some of the most frequently asked questions about treatment. These include how infertility is diagnosed, how it may be treated and also how long it may take women to conceive when undergoing particular forms of fertility treatment.

A second section of the Directory provides profiles of clinics currently licensed by the HFEA. In previous years, the HFEA has produced Patients Guides which gave data on outcomes of treatments in clinics. These guides will be produced again at the end of 2004. In the meantime, the HFEA has collaborated with clinics and Dr Foster to create profiles for this Directory that provide comprehensive information about each clinic. The profiles include details on when clinics are open, what services they provide, any eligibility for treatment and what sorts of counselling and other support services are available.

The HFEA is committed to ensuring that patients receive the treatment and support that they deserve and need. This Directory is part of a wider programme designed to ensure that patients receive accurate and up-to-date information on services throughout the UK. In August 2003, the HFEA launched a new website - [www.hfea.gov.uk](http://www.hfea.gov.uk) - with facilities for searching for clinics by treatment type and also postcode. In collaboration with clinics, we are also conducting a patient satisfaction questionnaire, the results of which will further inform our inspection and regulation processes.

The HFEA works within the framework of the 1990 Human Fertilisation and Embryology Act, legislation that was passed to ensure that patients, offspring and the wider public are provided with the services and protection they deserve. The Act refers to the need for the HFEA to provide information to patients and the wider public, and also to the HFEA's obligation to produce - and regularly update - a Code of Practice which gives guidance to clinics on how to provide treatment and services.

The HFEA is in a unique position to advise both patients and clinics on how services should be provided. This is reviewed on a regular basis to take into account both new scientific developments in assisted conception and the equally important ethical debate into how science should be used to help women conceive. It is for the HFEA to provide guidance on both scientific and ethical developments, and it is for patients to make decisions about what sort of treatment they want and where they want to have it. We hope this Directory gives patients some useful background information and guidance to enable them to make the best decision for their own particular circumstances.

**Suzi Leather, Chair HFEA**

### **Why was the HFEA set up?**

The HFEA was set up in August 1991 following the passing of the Human Fertilisation and Embryology Act 1990 (HFE Act). The creation of the HFEA reflected public interest in the

implications of new reproductive technology and a need for all services and research to be regulated in a consistent and professional manner. The HFE Act provides clear definitions of the HFEA's responsibilities regarding the regulation and inspection of clinics that provide services for infertility.

This year the Department of Health is to undertake a review of the HFE Act in order to ensure that it continues to provide effective safeguards for fertility patients. The review will include a public consultation in 2005.

### **What is the role of the HFEA?**

The HFEA's principal tasks are to license and monitor clinics that carry out in vitro fertilisation (IVF), donor insemination and human embryo research. The HFEA also regulates the storage of gametes (sperm and eggs) and embryos.

The HFEA's statutory functions include:

- \* Producing a Code of Practice that gives guidelines to clinics about the proper conduct of HFEA licensed activities.

- \* Maintaining a formal register

of information about donors, treatments and children born from those treatments.

- \* Providing relevant advice and information to patients, donors and clinics.

Underlying all these activities is the HFEA's determination to safeguard the interests of patients, children, service providers, scientists and the wider public.

The HFEA does not regulate all fertility treatments and is not involved in funding for treatment.

### **How is the HFEA organised?**

HFEA Members meet monthly to discuss and determine HFEA policy and practice. The Authority meetings are based around draft papers which have been reviewed by HFEA committees. HFEA Members are appointed by UK health ministers. To ensure that the HFEA has an objective and independent view, the HFE Act requires that the Chair, Deputy Chair and at least half of the HFEA Members are neither doctors nor scientists involved in human embryo research or providing fertility treatment. Members are not appointed as representatives of different groups but bring to the HFEA a broad range of expertise, for example medical, scientific, legal, managerial, religious and philosophical.

### **What is the HFEA Code of Practice?**

The HFEA has a statutory duty to maintain a Code of Practice giving information about the proper conduct of licensed activities. The Code of Practice includes guidelines on the use of gametes and embryos, donors, counselling, consent and welfare of the child. The Code is regularly reviewed and amended to keep up to date with rapidly changing clinical practice. Although the Code of Practice is designed for use by clinicians, patients may also find it a useful source of information about the standards which clinics should maintain. The latest edition of the Code of Practice is available on the HFEA website or direct from the HFEA.

### **What is the HFEA Register?**

The HFEA has a duty to store all registrations, treatments and outcomes that result from assisted reproductive techniques on a register. The HFEA currently uses paper forms to obtain information from clinics on patient and partner registration, donor information, donor gamete treatment, IVF treatment, embryo creation and use, and pregnancy outcomes.

This information is collected for the following reasons:

- \* To provide information to children born as a result of such treatment.
- \* To monitor the provision of treatments.
- \* To assist in the provision of information to the Government, patients, clinics and general public.

**How can I contact the HFEA?**

Human Fertilisation and Embryology Authority

Tel: 020 7377 5077

Fax: 020 7377 1871

Email: [admin@hfea.gov.uk](mailto:admin@hfea.gov.uk)

Website: [www.hfea.gov.uk](http://www.hfea.gov.uk)

## **So you want to have a baby**

Whether you have just found out you may have a problem getting pregnant, or have been trying unsuccessfully for a baby for some time, and are struggling to find your way around the infertility maze, this guide is for you. From diagnosis to treatment, it is packed with essential advice and information to help you.

If you have been told you have a fertility problem, you'll want to know when and how to find help to ensure you receive the best treatment for you and your partner. This section covers everything you need to know at the very start: from how baby-making works, to how to get fertility problems diagnosed. It also covers what can go wrong and why and offers advice on when to visit your doctor, as well as information on what tests will be done.

If you do turn out to have fertility problems you will need to find a clinic or treatment centre - you'll find advice on what to look for when making that choice.

Plus, there's essential advice and top tips on all the things you and your partner can do to boost your chances of conception, such as making lifestyle changes and improving your health.

Undergoing fertility treatment is often described as being on an emotional roller-coaster, which is why a good support system is vital. We explain how a counsellor can help you, plus give a rundown of the various forms of counselling available.

We also look at the various ways to fund treatment and two couples reveal how much it has cost them so far.

And if you come across a medical term you don't understand, you'll find a simple explanation in the glossary.

## What is fertility?

It takes just one sperm and one egg to create a baby, but there's more to fertility than that. Here we look at the miracle of making babies

If you've been trying to start a family without success you're not alone. Around one in seven couples in the UK have problems conceiving. To understand what causes infertility you need to know a bit about fertility - the ability to make a baby. To start a family you need to be healthy, your hormones must be working properly and the systems to produce eggs and sperm must be in good working order. When you have sex is important, too. For fertilisation to occur, sperm has to meet an egg when it's released from an ovary - at ovulation.

### Timing matters

You don't have to have sex at the exact moment of ovulation to get pregnant - you have a window of about four days. That's because eggs live, and can be fertilised, for 12 to 24 hours after being released, and sperm stay alive and active in the woman's body for 12 to 48 hours.

### Hormones, hormones

Hormones are chemical messengers produced by the body. Several different ones are involved in producing eggs and sperm. So, if there is something wrong with them it can be hard to get pregnant.

At least 20 per cent of women attending a fertility clinic have problems with ovulation, usually caused by an imbalance of hormones. Hormone drugs, called fertility drugs, can be used to stimulate ovulation.

An imbalance or shortage of hormones can also cause problems with sperm production.

### Egg and sperm production

#### For her

Egg production involves the interaction of several different hormones.

The process starts with the gonadotrophin-releasing hormone (GnRH), produced by a part of your brain called the hypothalamus. This stimulates the small gland at the base of your brain, the pituitary, to release follicle-stimulating hormone (FSH). This in turn triggers the several follicles (egg sacs) to start to develop in the ovaries.

The follicles produce oestrogen, which stimulates the pituitary gland to release another hormone called luteinising hormone (LH). This hormone makes the ripest egg sac burst and release an egg (ovulation).

The remains of the egg sac form a small yellow body called the corpus luteum. This produces another hormone, progesterone, which prepares the lining of the womb, making it thicken into a welcoming environment for a fertilised egg.

#### For him

The same hormones that control ovulation in women, stimulate the release of testosterone which is responsible for sperm production.

Gonadotrophin-releasing hormone (GnRH), produced by the hypothalamus in the brain triggers the release of the same follicle-stimulating hormone (FSH) as in women, and luteinising hormone (LH) from the pituitary gland.

FSH stimulates sperm production in the testicles, while LH stimulates the testicles to produce the male hormone testosterone.

Sperm travel from the testicles to the epididymis, a 40-foot long coiled tube, where they mature. The sperm then travel down another tube, the vas deferens, to the penis. When a couple have sex and the man 'comes', or ejaculates, the sperm are forced from his penis into the vagina in powerful spurts.

### **Ovulation**

A baby girl is born with up to 450,000 eggs - her body is unable to make any more during her lifetime. At puberty, her body starts to make the hormones that will cause the eggs to mature. Until the menopause, she will release an egg (ovulate) each month, around about day 14 of her monthly cycle (day one is the first day of a period). The average monthly cycle - the time between periods - is 28 days, although this differs from woman to woman. Your most fertile time depends on the length of your cycle.

### **5 things you should know about getting pregnant**

1 Eating a healthy, nutritious and varied diet will help make sure your body is healthy and able to conceive and nourish a developing baby.

2 Staying a healthy weight will help maximise fertility.

Being overweight or underweight can disturb your monthly menstrual cycle.

3 Sexually transmitted infections, such as chlamydia, can block your fallopian tubes and prevent you becoming pregnant.

4 Excessive alcohol can damage sperm and eggs, so you're advised to stick within the recommended limits of 14 units a week for women and 21 for men.

5 Smoking cigarettes and marijuana can interfere with ovulation and can reduce a man's sperm count. Try to give up or at least cut down.

### **Your menstrual cycle**

Days one to five

The lining of the womb (known as the endometrium) is shed during menstruation (monthly period).

Days six to 14

The lining of the womb gradually builds up again and, under the influence of oestrogen, becomes thick and juicy ready to receive and nourish a fertilised egg.

Oestrogen stimulates the mucus produced by your cervix (neck of the womb) to become thin and slippery so sperm can swim through it.

Days 15 to 28

Rising levels of progesterone from the corpus luteum increase the blood supply to the lining of your womb making it the perfect environment for a fertilised egg.

If the egg is not fertilised - or is fertilised but doesn't attach itself to the lining of the womb - the egg breaks down. The corpus luteum shrinks and progesterone levels plummet. This causes the blood vessels in the lining of the womb to break up, the walls of the womb to contract, and the menstrual cycle to start again.

### **Did you know?**

\* As many as 300 million sperm are released into your vagina during sex but only a few survive the hazardous journey through the neck of the womb (cervix), uterus and fallopian tubes. Ultimately, just one will burrow its way into the egg.

\* It's a myth that making love less often increases your chances of conception. In fact, the best way to boost your chances of pregnancy is to make love every couple of days.

\* 64 days - that's how long it takes for sperm to be manufactured.

## When it doesn't happen...

If you have been trying to start a family without success, you're not alone - around one in seven couples in the UK have problems conceiving. But don't panic, as there's a lot that can be done to help you

If you're not pregnant after a year of having regular unprotected sex, it's worth going to see your GP. It could be a male or female problem, or the cause could be a combination of things affecting the two of you.

## What can go wrong?

Infertility tends to be thought of as a female problem but, in fact, only a third of cases can be traced back to the woman. In another third, the problem lies with the man, while 'unexplained infertility' - where no reason can be found - accounts for the rest.

### For her

- \* Your ovaries aren't releasing eggs.
- \* The fallopian tubes that carry eggs from your ovaries to your womb are blocked or damaged. This would stop your partner's sperm reaching an egg to fertilise it; it would also prevent a fertilised egg reaching the womb.
- \* Problems with the lining of the womb can prevent successful implantation of a fertilised egg.
- \* There may not be enough lubricating mucus from the neck of your womb (cervix); the consistency of the mucus could be too thick; or it may be paralysing your partner's sperm, preventing them swimming towards an egg.

### For him

- \* Poor quality sperm.
- \* Not enough sperm (known as low sperm count).
- \* Sex problems, such as difficulty getting an erection or ejaculating, so sperm don't get into the vagina.
- \* Blocked or malformed tubes that carry sperm.

## Underlying problems

### For her

- \* Previous surgery (for example for appendicitis, cancer or an ovarian cyst) may have caused scar tissue which is blocking your fallopian tubes.
- \* Previous infections, such as the sexually transmitted infection chlamydia, can scar the fallopian tubes and prevent sperm from reaching an egg.
- \* Polycystic ovary syndrome (PCOS). Caused by hormone imbalances, PCOS is the major reason for not ovulating. Symptoms include heavy, irregular or absent periods, weight gain, acne and excess body hair.
- \* Endometriosis can cause damage to the fallopian tubes and ovaries. In this condition, tissue similar to the womb lining grows elsewhere, leading to inflammation, pain and scarring.
- \* Diabetes, epilepsy, thyroid problems and bowel diseases, can also affect fertility.
- \* Gynaecological problems, such as a previous ectopic pregnancy.
- \* Being overweight or underweight can affect your body's ability to make eggs reliably. Even a 10 per cent loss of body weight in those who are overweight may make a

difference.

#### For him

- \* Previous inflammation of the testes (orchitis). This can be caused by a virus, such as mumps, which can affect sperm production, or by a previous bacterial infection causing scarring and blockage of the tubes.
- \* Surgery to correct a hernia, undescended testicles or twisted testicles can damage the tubes or impair blood flow to the testes.
- \* Retrograde ejaculation, when sperm travels backwards to the bladder, may be caused by diabetes, medication or linked to surgery on the urine tract.
- \* Genetic problems can cause serious sperm abnormalities.
- \* Drug treatment and radiotherapy can damage sperm production.

#### **Getting a diagnosis**

Your GP will start by doing a few basic tests. He'll take a blood sample (to check your hormone levels), and ask your partner for a sperm sample (his sperm will be counted and checked for levels of activity). You can also buy a home-testing kit at the chemists to check whether you are likely to be ovulating. These tests may reveal a simple solution to your problem that your GP will be able to treat. If not, he may send you to hospital or a specialist fertility clinic for further tests. They may include:

#### For her

- \* Blood tests to find out if you are ovulating.
- \* Ultrasound scan to look at your womb and ovaries.
- \* Follicle tracking - a series of ultrasound scans follows the development of a follicle and checks if an egg is developing.
- \* Hysterosalpingogram - an X-ray to check your fallopian tubes.
- \* A small sample of tissue may be taken from the lining of your womb to be analysed.
- \* Laparoscopy and dye - a dye is injected through your cervix and a flexible tube with a tiny camera attached is used to check for tubal blockage.
- \* Hysteroscopy - a telescope with camera attached is used to view your uterus to check for problems such as fibroids or polyps.
- \* Hysterosalpingo-contrast sonography (HyCoSy) - a vaginal ultrasound probe is used to check the fallopian tubes for blockages

#### For him

- \* Semen analysis to check sperm numbers and quality.
- \* Sperm antibody test to check for protein molecules that may stop sperm fertilising an egg.
- \* A sperm invasion test, to see if sperm are swimming through the cervical mucus and are still active.

#### **How long should it take?**

Getting pregnant is harder than you might think. On average, if you are having sex regularly without using contraception you should conceive within two years. But in any one month your chance of getting pregnant is only 20 per cent.

To give you some idea, in 100 couples:

20 will conceive within one month

70 will conceive within six months

85 will conceive within a year  
90 will conceive within 18 months  
95 will conceive within two years

### **Did you know?**

- \* 80 million - that's the number of couples who have problems conceiving worldwide.
- \* For maximum sperm production the testes should be a couple of degrees cooler than the rest of the body. Some experts recommend men wearing loose-fitting underwear and trousers, and avoiding activities that boost the temperature of the testes, such as saunas.
- \* Apart from pregnancy, difficulties in conceiving are the number one reason why most 20 to 45-year-old women visit their GP.

### **Ask the expert**

#### **'I'm really stressed at work. Is that why I can't get pregnant?'**

The jury is still out on this one, but some experts think stress can be a cause of infertility. There's no doubt that hormones are affected by anxiety and tension, and according to research in the US, stress may actually cause the fallopian tubes to go into spasm, while in men, it appears to lower the production of sperm.

#### **'I'm 37 and my partner is 40. Are we too old to have a baby?'**

Fertility wanes in both sexes as you get older, but the decline is steeper in women. At 35 you're half as fertile as you were at 25; at 40 you're half as fertile as when you were 35. Although men stay fertile longer their fertility also takes a downturn with age.

#### **'I've never had trouble getting pregnant before, so why is it taking so long this time?'**

Regardless of whether you have had a baby, or babies, before, you may still encounter problems when trying to conceive.

Have there been any major changes in your lifestyle? For example, have you had any gynaecological or medical problems? Are you with the same partner? Are you having sex as frequently as you did when you were last trying for a baby? You also have to accept the fact that you may not be as fertile now, especially if it's a few years since you were last pregnant.

### **Infertile or subfertile?**

'Infertility' means you are unable to conceive. Few couples, however, are infertile, most are 'subfertile' - that is they have problems that make conception difficult, if not highly unlikely, without medical help. The term subfertile is also used if you can get pregnant but keep having miscarriages.

### **Types of infertility**

There are two terms that are used to describe couples with fertility problems. 'Primary infertility' is the term used for couples who are unable to conceive. 'Secondary infertility' refers to couples who, after having had one or more babies, are unable to conceive, or, in the woman's case, maintain a pregnancy. This term may also be used if you have had one or more miscarriages or stillborn babies. Secondary infertility is more common than primary infertility.

**5 questions to ask about tests**

1 Why am I being offered the test?

2 Are there any alternatives?

3 What will the test reveal?

4 When will I be tested?

5 How long will the test take to do, and when will the results be through?

## Getting help

Can't get pregnant? Here's when you and your partner should seek help. Your first step is to make an appointment to see your GP so you can talk over your concerns. Infertility is a problem that affects both men and women, so it's a good idea to go along together.

### When should you consult your GP?

If you're young and healthy there's usually no need to worry until you have been trying for a baby for 18 months to two years. If you're over 35, however, it's a good idea to make an appointment after trying for six months. That's because the tests needed to get to the bottom of fertility problems can take months and your age can affect what treatments you're offered, and even how effective they are. You should also see your GP quickly if:

#### For her

- \* Your periods are painful and/or heavy, or they are irregular and you sometimes miss them.
- \* You've had an ectopic pregnancy or more than one miscarriage .
- \* You've had any abdominal operations, including operations on your ovaries.
- \* You've had a sexually transmitted infection such as chlamydia or gonorrhoea.
- \* Sex is painful.

#### For him

- \* You had mumps and your testicles were affected.
- \* Your testicles didn't drop down as a child and you had an operation to help.
- \* You had a sexually transmitted infection in the past.
- \* You have sexual problems, such as premature ejaculation.
- \* Your job brings you into contact with radiation or chemicals.

### What will the GP do?

The GP will listen to your concerns, make a note of your medical history, give you both a physical examination and do a few initial tests. These usually include:

#### For her

- \* A smear test if you haven't had one recently.
- \* Urine test for chlamydia.
- \* Blood test to check for ovulation - this is done seven days before your period is due.
- \* Blood test to check for German measles (or rubella) which, if you get it during the first three months of pregnancy, can harm your unborn baby.
- \* Blood test during your period to check for hormone problems.

#### For him

- \* Sperm test - to check the number, volume and activity of your sperm. If the sperm count is low the test will be repeated three to four weeks later.
- \* Urine test for chlamydia.

### Next steps

Once your GP has your test results he or she should have a clearer idea why you're having problems getting pregnant. If the physical exam and test results were normal and

you have been trying for less than 18 months, he or she may suggest making lifestyle changes and trying a bit longer. If the doctor suspects you may have fertility problems, he or she will probably make an appointment for you to see a specialist, either at your local hospital or a fertility unit.

Infertility investigation is funded by the NHS; therefore all patients have the right to be referred to the NHS or to attend an NHS clinic for initial investigation. It is the treatment for infertility itself that may have restrictions relating to NHS funding. For this reason, surgery for investigation will be NHS funded but treatment, such as tubal surgery, may not be.

### **When should we see a specialist?**

The doctor should refer you to a specialist without delay if:

- \* You or your partner are 35 or older.
- \* Your monthly cycle is less than 21 days or longer than 35 days.
- \* You're not ovulating.
- \* You have had previous gynaecological problems, such as endometriosis, an ectopic pregnancy or an infection in your pelvis.
- \* Either of you have abnormally shaped pelvic organs.
- \* You have been trying for a baby for three years or more.

### **Need to talk?**

No one can really appreciate just how stressful infertility is unless they have been through it themselves. Many couples describe it as being on an emotional roller-coaster. Friends and family may find it hard to talk about your problems, or you may feel they lack sympathy or just don't understand. Joining a support group, whose members are going through the same thing you're experiencing, is a good idea. Many groups produce useful newsletters and booklets and may also run regular meetings, which you can attend if you wish. Your GP may know of one locally, or see Useful contacts (p108).

## **Q&A**

### **'What are our chances of success?'**

It all depends on your problems. Fertility declines in both men and women as they get older, but if there's a fairly straightforward cause which can be treated and you're generally healthy you stand a good chance of success. You're less likely to be successful if you've been trying to get pregnant for over three years; if the reason for your infertility is unknown; or if you are coming up to the menopause.

### **'Will a specialist refuse to treat me? I'm 40 years old.'**

Some specialists apply age limits because the chances of successful treatment are less as you get older. NHS clinics will also usually have restrictions relating to age. Human eggs are best when they're fresh and they deteriorate the nearer you get to the menopause. Some specialists draw the line at 35, others put the upper age limit at 40 or 45.

### **'I'm worried that if I go to my GP or a clinic, my husband will find out I once had an abortion. What should I do?'**

Your GP and the staff at the clinic are used to dealing with people who have things they want to keep private. Make a separate appointment so you can talk to your doctor in confidence, and ask him or her to mark the reference to your abortion in your notes as confidential.

### **5 Questions to ask your GP**

- 1 What clinics and treatments are available locally?
- 2 Do you refer patients to a particular clinic or specialist, and, if so, why?
- 3 What kind of clinic is it, and what treatments will we be offered?
- 4 How long will we have to wait before we are seen? If there's a long waiting list, is there anything we can do to speed things up?
- 5 If we need fertility drugs or tests, will the costs be met by our GP's practice or will we have to pay?

## Choosing an assisted conception clinic

With so many hospital units and private clinics offering fertility treatment in the UK, how do you find the right one for you?

There are many factors to consider when choosing a clinic, so take some time to explore all your options. There are currently 88 HFEA licensed clinics in the UK but not all of them offer a full range of treatments, and only 52 take NHS patients. It's a good idea to send for a few brochures so you can compare facilities and costs. Then arrange to visit a few clinics to meet the staff and get a feel for what they are like. Here are some other things you need to know:

### The clinic's history

Do your homework - find out all you can about the clinic. Some have special interests or expertise in a particular treatment. You may be looking for an establishment with a tried-and-tested reputation but don't dismiss a new clinic, which may offer equally high standards of treatment.

### What to ask

- \* Will we see the same doctor every time?
- \* Can we choose to see a female (or male) doctor?
- \* Will we have the opportunity to discuss our problems/and the causes with the doctor?

### Treatment matters

As well as the treatments on offer, it is important to find out how long you're likely to have to wait for them. You also need to discover whether the clinic has rules about who it will treat - will they, for instance, only take couples under a certain age? - and whether the clinic has a policy on cancelling treatment if too few, or too many, eggs develop as a result of taking fertility drugs.

### What to ask

- \* What treatments are offered?
- \* How many treatments do they carry out each year?
- \* Are there restrictions on any of the treatments?
- \* What tests will be carried out by the clinic?
- \* Are there any side-effects?
- \* What is the multiple birth rate for different treatments?
- \* How many cycles of treatment are recommended before you should consider other treatment options or cease treatment?
- \* What costs are associated with the treatment?

### Location, location, location

Sometimes it's worth compromising and choosing a clinic that's within easy travelling distance of home. Getting up in the middle of the night and trekking half way across the country to have eggs collected or give a sperm sample all adds to the stress. If your clinic is a long way away, you may be able to have certain treatments carried out at a local hospital (referred to as a satellite or transport centre).

### **What to consider**

- \* How far away is the clinic?
- \* How easy is it to get to?
- \* Are there any treatment arrangements with a hospital that's closer to home?

### **Support matters**

All clinics offering treatments such as IVF have to give you the chance to talk over your treatment and any worries you have about it with a counsellor. It's not always free and there are different kinds of counselling on offer.

### **Embryo policy**

Fertility clinics will usually only replace one or two embryos in your womb at each IVF attempt or similar treatment. Replacing more than one increases your chance of multiple pregnancy and birth (giving birth to twins, triplets or more), with all the attendant risks this can carry for you and your babies. 'Spare' embryos can be frozen for future treatments.

### **What to ask**

- \* What are the chances of multiple birth?
- \* What storage facilities does the clinic have if you decide to freeze eggs or embryos?
- \* Does the clinic have access to donor sperm, eggs or embryos?

### **Success rate**

Of course, the million-dollar question is: 'Will I go home with a baby?' Unfortunately no one can answer this, but it is important not to go for a clinic simply because its 'success rate' looks good on paper. Success rates - or live birth rates, as they are called - are incredibly difficult to interpret. For instance, a clinic that accepts only younger couples with straightforward problems will usually have better success rates than one that takes older couples or couples with more complicated problems.

The HFEA is currently looking at the way information about success rates is presented, in order to ensure it's clear and easy to understand. That's why you won't find details of live birth rates in this publication. If you want to find out more, contact each clinic directly.

### **What to ask**

- \* What is your live birth rate for each treatment cycle started?
- \* What is your live birth rate for each egg collection?
- \* What is your live birth rate for each embryo transfer?
- \* What is the live birth rate for a particular age group?

### **Q&A**

#### **'If we change clinics, what will happen to our embryos?'**

You need to inform the clinic of where the embryos are to be moved to. In most cases, you will be expected to make your own transport arrangements. You may have to pay for this service.

#### **'What is the "welfare of the child assessment"?'**

Before offering fertility treatment, the 1990 Human Fertilisation and Embryology Act requires the clinic to consider both the potential baby's welfare (including the need for a father) and the welfare of other children affected by the birth.

The clinic must ask a number of personal questions, including your age, your ability to meet a new baby's needs, and the medical histories of you and your family. They might also consider your home environment.

With your consent, the clinic will contact your GP to ask if there are any reasons why they feel treatment shouldn't be offered.

The policy on providing treatment to single women, unmarried couples and older women varies between clinics. An upper age limit is often applied, although none is set by the HFEA.

For further information, see the HFEA leaflet, Welfare of the Child (contact the HFEA for details).

**Top tip**

Make a list of questions you want to ask before visiting the clinic.

## **How much will it cost?**

It's impossible to put a price on a baby but you need to think about how much treatment is likely to cost. Sadly, the NHS does not currently fund fertility treatment in many areas of the country and even where it does there are likely to be conditions you have to meet and long waiting lists.

Prices vary widely depending on what tests and fertility treatment you need and which clinic you attend. A single attempt at donor insemination, for example, can cost as little as around £100 and usually no more than around £500. A cycle of IVF, on the other hand, can cost anywhere between £800 and £3000, depending on where you live and which clinic you go to.

You also need to budget for the HFEA fees of around £100 for each IVF cycle and around £50 for each donor insemination cycle. This fee helps to fund the important work of the HFEA.

The cost of drugs for IVF is also significant and may double the cost of the treatment. Check if drugs are included in the cost of treatment and if not whether a 'mark-up' for dispensing is placed on the drugs. Many of the companies will supply the drugs on prescription for a very competitive rate and will deliver to your door. The National Institute for Clinical Excellence (NICE) has recently completed a consultation in order to issue guidance aimed at standardising access to fertility treatments across the NHS in England and Wales.

## **Will we get funding?**

At present the NHS funds only a quarter of assisted conception treatments such as IVF and ICSI. Each funding authority - health authority/board or primary care trust - decides how much money to allow for fertility treatment and the types of treatment they will fund. To find out whether you are able to access NHS funding contact your GP, local IVF clinic, health authority or primary care trust - you'll find their numbers in your local phone book.

## **What are the options?**

### **NHS treatment**

What is it?

The NHS will fund your fertility treatment at your local hospital or clinic, or elsewhere if your local funding body has a contract with them.

Any restrictions?

There may be an upper age limit - anything from 34 to 43. There may also be other criteria to meet - for instance, that your hormone blood levels must show you are not coming up to the menopause and, therefore, have a fair chance of responding to fertility treatment.

There may also be criteria relating to existing children. In addition, it's unlikely that you will be offered a choice of clinics.

You need to know

Initial tests will be arranged by your GP. Treatments including fertility drugs, intra-uterine

insemination using your partner's sperm, and a certain number of IVF treatments - typically around three may be covered. Unless you are exempt you may still have to pay the usual prescription charge for any drugs. Waiting lists vary between six months and several years.

## **Self-funding**

What is it?

Treatment at cost price - the same price the NHS pays to cover staff, equipment, tests and treatment. It is offered at some NHS fertility units.

Any restrictions?

Self-funding is for people who cannot get NHS treatment because the funding authority will not pay, or for those who feel the wait for NHS treatment is too long and who do not want to go completely private. The clinic you go to may have its own conditions for treatment.

You need to know

Your GP may suggest a clinic but you are not obliged to go there.

A typical fee for a self-funded IVF cycle might be around £1500 to £1700, plus the cost of fertility drugs, which you may be able to get on NHS prescription. Waiting lists are often shorter than for NHS treatment.

## **Private treatment**

What is it?

You pay the costs of drugs and treatment at a private unit of your own choice.

Any restrictions?

Anyone who can afford to pay, in theory, can get private treatment, although individual clinics usually still have conditions about who they will treat.

You need to know

You get to choose your consultant and clinic. Costs vary, but because private clinics are competing with each other they tend to be fairly similar. At one private clinic, for example, the current fee for a cycle of standard IVF is £2350, plus £300 for embryo freezing. Add to that the HFEA fee and £125 for the anaesthetist. You will also need to budget for costs of drugs and consultations. You will usually get treated quickly but there may still be waiting lists for treatments such as egg donation.

Will treatment be better if we go private?

You will not receive better treatment but it will usually be considerably faster.

## **What are costs made up of?**

Costs typically include:

- \* Consultation fees for first and follow-up appointments for you and your partner.
- \* Simple tests, such as hormone tests, ultrasound and sperm tests.
- \* Special tests, such as hysterosalpingogram (x-ray of the fallopian tubes), ultrasound tracking of egg development, trial embryo transfer and genetic tests.
- \* Fertility drugs used to stimulate egg production.
- \* Assisted conception treatments, including intrauterine insemination, donor insemination,

IVF, ICSI, egg or sperm donation, frozen embryo donation.

\* Freezing and storage fees for sperm or embryos.

\* Transfer of eggs and sperm to other centres.

### **What is egg sharing?**

A number of fertility clinics offer egg sharing schemes, in which you donate some eggs collected from a cycle of IVF to another woman in return for a free or discounted IVF treatment. You will still, however, be expected to pay for any extra treatment you may need.

The HFEA produced guidelines on egg sharing in December 1998.

### **What I learned**

#### **'Not a penny so far...'**

Wendy Blainey, 36, and her partner, James Dickinson, 34, who live in Lanarkshire, have had all their treatment paid for by the NHS.

Wendy: 'We'd been trying unsuccessfully for a baby for two years before we decided to see our doctor. The initial tests our GP carried out didn't reveal any problems. We then moved and our new GP referred us to a local hospital, where we were diagnosed with "unexplained infertility".

'We then had six attempts at IUI - which didn't work - before being referred to the hospital's IVF unit. We were told we were eligible for three treatment cycles on the NHS, and we had our first try in August 2003. Although I produced 10 eggs, only six were mature enough to use, only three became fertilised and only one got to the stage where it could be transferred. Unfortunately, I didn't conceive.

'We intend to go ahead with the two other cycles we've been offered on the NHS, but if that doesn't work, we will have to think about what to do next. So far our treatment on the NHS hasn't cost us a penny.'

#### **'£40,000 and counting...'**

Pippa, 36, and Mark Adams, 41, have been trying for a baby for six years and having private fertility treatment for almost four years.

Pippa: 'Mark has an extremely low sperm count and we were told there was little that could be done on the NHS. The first treatment we tried was ICSI/IVF. The whole procedure, including drugs and an operation to collect Mark's sperm came to almost £7000. We then had five more tries, costing between £3400 and £4000 each. Mark's brother offered to donate sperm. After careful consideration we decided to use this and had three attempts at intrauterine insemination - each costing from £537 to £667 for drugs, insemination and sperm freezing. A further £2000 went on additional costs.

'My sister then said she would donate eggs, as the quality of mine wasn't good. We had two attempts at that (at a total cost of around £12,000).

'Luckily we inherited some money, otherwise I don't know how we'd have funded it.'

## **Getting healthy**

Preparing for conception will boost your chances of getting pregnant and may also lower the risk of complications during pregnancy. Here's what you and your partner can do

There are a few simple lifestyle changes that you and your partner are advised to make before trying for a baby. Think of them as an investment in the future health of you and your baby.

### **Eat a balanced diet**

A nutritious diet will help you feel fitter and more energetic, and ensure your body is healthy and ready for pregnancy. Eat plenty of fresh fruit and vegetables, especially green leafy vegetables, which are rich in folic acid (needed to prevent birth defects), complex carbohydrates, such as wholegrain, brown rice, oats and wholemeal bread, plus low-fat meat, fish, poultry and pulses for protein.

### **Watch your weight**

Being overweight or underweight can affect egg production, lower your chances of getting pregnant and increase the risk of certain problems in pregnancy. Clinics may have eligibility criteria relating to your body mass index (BMI).

### **Taking supplements**

The Government advises any woman planning a pregnancy to take 400mcg of folic acid a day to decrease the risk of spina bifida (a hole in the spine) and other neural tube defects. If you have previously had a baby with a neural tube defect or have epilepsy, you should consult your GP.

### **Quit smoking**

Smoking has been linked to infertility and early menopause in women, and sperm problems in men. Women who smoke reduce their chances of getting pregnant by approximately 40 per cent. Smoking is also linked to having a premature or low-birth-weight baby.

### **Stay active**

Regular exercise helps relieve stress by stimulating your levels of 'happy' hormones (endorphins) and also helps you stay a healthy weight. But don't go overboard - most days aim to do just half an hour to an hour of a moderate activity, such as walking, swimming, running, dancing, or whatever else you enjoy.

### **Moderate alcohol**

Just five units of alcohol a week can mean it will take you twice as long to conceive - a unit being a small glass of wine, half a pint of normal-strength beer or a small glass of spirits. Drinking too much alcohol can also increase your risk of miscarriage and will affect the quality of your partner's sperm. Limit yourself to no more than one or two units a night, while your partner should stick to two to three units. Both of you should try to have a few alcohol-free days during the week.

### **Avoid drugs**

Street drugs such as marijuana or cocaine may affect fertility, so it's best to steer clear of

them. Some prescription drugs are also not recommended when you're trying for a baby or during pregnancy - talk to your GP who may suggest alternative medication.

### **Coping with stress**

Whether being under stress causes difficulties conceiving is still under debate, but some fertility experts believe it does play a part. Everyone agrees, however, that undergoing fertility tests and treatment can be extremely stressful for couples, so it's important to find ways to relax. Yoga, exercise, playing sport and massage can all help.

### **Vital checks**

#### For her

These simple health checks will help safeguard you and your baby during pregnancy.

- \* Rubella (German measles)

If you get rubella during the first three months of pregnancy, your unborn baby is at risk of blindness, deafness and mental retardation. You should be tested for immunity and, if needed, vaccinated before trying to conceive.

- \* Cervical smear

Check that this is up to date.

You should have one every three years.

- \* Anaemia

Ask your GP to do a blood test.

- \* Sexual health check

Ask your GP or visit your local genito-urinary medicine (GUM) clinic to make sure you don't have any infections, such as chlamydia, which could affect your ability to conceive. With infections such as chlamydia you may have no symptoms.

- \* Family medical history check

If there's a history of genetic disorders, such as cystic fibrosis, or chromosome problems, such as Down syndrome, ask your GP about genetic counselling or tests.

#### For him

The following simple measures may help improve male fertility.

- \* Quit smoking (see left) or at least cut down.

- \* Reduce alcohol intake (see left).

- \* Lose weight if necessary.

- \* Avoid exposure to chemicals and radiation, if possible.

## **Counselling matters**

Finding out you have fertility problems and then going through treatment can put you and your partner under a lot of strain. Many couples find it helpful to talk to a counsellor

We all have times when we need someone to talk to, someone who will really listen to what we're saying. Even though friends and family may be supportive, it is often useful to talk through your feelings with someone like a counsellor who doesn't know you and who won't judge what you say or are feeling.

A counsellor can help both you and your partner (if you have one) come to terms with your diagnosis of infertility. They will also be able to explain unfamiliar medical jargon and help prepare you for what can seem a like daunting barrage of tests and treatments.

### **What to expect**

Infertility counselling involves talking in confidence with someone who is trained and qualified to explore the issues surrounding infertility and its treatment. You may find it helps prepare you for treatment by making you feel more in control of what is happening to you and your partner - even if you can't guarantee the final outcome. There are various forms of counselling, these include:

### **Implications counselling**

What is it?

A counsellor can talk to you about the treatment you are having, or plan to have, so that you understand exactly what it involves and how it might affect you and those close to you - now and in the future. This is especially important if you're considering treatment with donated sperm, eggs or embryos, or surrogacy arrangements - all of which involve complicated issues ranging from your feelings and those of your partner (if you have one), to what other people and society think. There are also legal implications to consider.

Where is it offered?

By law all HFEA licensed clinics must offer implications counselling before you consent to treatment.

How can it help?

Understanding the facts about your treatment and its wider implications may help you make decisions that you feel comfortable about and can live with.

### **Support counselling**

What is it?

The counsellor can offer you emotional support at any stage before, during or after fertility treatment.

Where is it offered?

You will be able to have support counselling at your clinic. If you need additional support, the counsellor will have information about other services in your area.

How can it help?

This form of counselling will help you cope with the emotions you experience at particular times during your treatment, such as when you first find out you have fertility problems, when you are waiting for results, if you are faced with a negative outcome or if you and your partner are coming to terms with the fact that there is no further suitable treatment for you to try.

### **Therapeutic counselling**

What is it?

Infertility can throw up all sorts of issues in your life. For instance, it can sometimes trigger other painful memories from your past, or the treatment may be making you depressed or anxious. Therapeutic counselling helps people work through some of their most difficult problems.

Where is it offered?

All HFEA licensed clinics are obliged to provide therapeutic counselling or be able to refer you to an independent counsellor elsewhere. Ask your doctor or specialist fertility nurse for information.

How can it help?

This form of counselling will help you understand yourself, your past and deal with the impact that infertility is having on your life and your relationships with other people.

### **Getting in touch with a counsellor**

The clinic should provide you with the contact details of a counsellor. As policy varies from clinic to clinic, you should check whether you have to pay extra for counselling.

Allow about an hour for each session and expect to see the same counsellor for any further sessions. You may have just one or two sessions or be able to arrange more sessions as and when you feel you need it.

For your sessions to progress, it's important for you to feel comfortable with your counsellor. If for any reason you're unhappy with your sessions, speak to your counsellor. If you can't resolve the problem, ask to be referred to someone else. Don't feel awkward or bad about this, your counsellor will understand - someone else may be better suited to your needs.

### ***Ask the expert***

Jennifer Hunt, Infertility Counsellor

'We're based in the IVF Unit and see over 300 people a year for counselling. Some come for just one or two sessions, while others need many more. They may want to come on their own or as a couple.

'Some of our work involves helping people to talk about their experiences and to understand the underlying issues, which makes it easier for them to find ways to cope or sort out problems.

'It's not surprising that infertility affects the rest of people's lives. It's pretty hard to face friends with children, or to deal with talk at work about families, or with someone going on

maternity leave. Within a relationship, too, infertility can cause a huge amount of stress. 'We offer people a safe space where they can focus on their problems and be supported in finding their own solutions. Often just sharing feelings with someone outside their circle of friends and relations brings a sense of relief.

'There are certain key times when people find it particularly difficult to cope, such as the start of the treatment process when they are uncertain what to expect. Then, once they get started they can find that they're on an emotional roller-coaster. They may worry about whether they will produce enough eggs, whether these will fertilise and how many embryos there will be. After embryos are transferred, people can feel as if their whole lives are on hold until they can have a pregnancy test. The day of the test is usually very stressful.

'Counsellors don't set out to tell people what to do, and they don't need to because most people are very resourceful. They just need the right kind of support from someone who can be trusted and who has the skills to help them explore feelings and thoughts that are often difficult to share. What people can overcome and their resolve in our counselling sessions always impresses me.'

### **5 things you can expect from a counsellor**

- 1 To be able to talk freely without having to worry about your counsellor's feelings or reactions.
- 2 Not to be judged for what you say or are feeling.
- 3 The opportunity to express and talk about your feelings whatever they are.
- 4 Whatever you say will be confidential, unless there are exceptional circumstances.
- 5 A counsellor will help you to reach your own solutions rather than imposing their own or telling you what to do.

### **Q&A**

#### **'Since we started trying for a baby, sex just isn't fun any more. What can we do?'**

Couples with fertility problems often find their love life suffers. Having sex becomes about making a baby rather than about fun and showing your feelings for each other. If you feel your problems are affecting your relationship, you will find that a skilled counsellor can help you explore the problems and work with you to resolve them.

#### **'My friend has just had a baby and I can't bring myself to tell her about our problems. What can I say?'**

Deciding what and whether to tell family and friends about your problems can be really hard. You need to think about who you are going to tell and what you are going to tell them. If you do decide to tell someone it may help to tell them exactly how they can support you. You may want to talk this through with your counsellor to consider all the possible issues involved in telling other people. You may also find it helpful to talk to a patient support group.

## Your treatment options

This section is all about assisted conception - the use of different high-tech treatments designed to give nature a helping hand by preparing eggs and sperm to enhance your chances of getting pregnant.

This section contains all you need to know about the different treatments on offer - from taking fertility drugs to IVF and the newer technique of intra-cytoplasmic sperm injection, ICSI. There's also information on egg and sperm donation and surrogacy and the issues they raise.

In each case you will find details of what the treatments are and what they involve - for you and your partner - plus the latest information on success rates, how you will know if treatment has been a success and how soon you can expect to find out. It also outlines who the various treatments are most suitable for and steps to take if they don't work.

### A guiding hand

There are all sorts of difficult decisions to make when you are going through fertility treatment. For example you will have to decide whether to freeze any 'spare' embryos and, if so, for how long and what you want to do with them once your own family is complete.

If you are successful with treatment you may be wondering what will happen next. But what if treatment doesn't work? You may want to continue or you may decide to call it a day. Whatever your decision you will find information plus advice on how to complain if you are not happy with your treatment.

Fertility treatment can be a lonely business, which is why throughout this section real-life couples share their experiences and offer advice on what they learned. Each section rounds off with a list of clinics offering the treatment in question to make it easier to find a place to treat you.

If you come across any unfamiliar medical terms, turn to the glossary for an explanation.

### Consent matters

Before undergoing assisted conception treatment you have to give written consent to the treatment. There are three types of consent involved in HFEA licensed treatment:

#### \* Consent to use and storage of eggs, sperm and/or embryos

You and your partner must give written consent to the use and storage of your eggs or sperm, and of any embryos produced from them. 'Use' could be for your own treatment, for the treatment of others (donation) or for research. 'Storage' relates to the freezing of sperm, eggs or embryos for later use.

#### \* Consent to treatment

The clinic will ask you to give written consent to your fertility treatment. In many ways this is similar to the consent that is often required for other types of medical treatment. For example, if you are having IVF treatment, you will have to give consent to egg retrieval and the transfer of embryos into your womb; if you are having treatment with donated eggs or sperm, you will have to give consent to treatment using these and to embryo transfer.

\* Consent to disclosure of information

The law requires that before a clinic can tell your GP, or anyone else, about your treatment, it must have your written consent to disclose information. You may wish to consider what information you wish to allow to be disclosed and to whom.

**What is effective consent?**

For consent to be effective it must be given in writing and must not have subsequently been withdrawn. The HFEA issues consent forms to clinics. If you complete this form correctly this should ensure that your consent is valid.

Your consent must also be 'informed'. This means that before you or your partner give consent, the clinic must give you suitable opportunity to receive proper counselling about the implications of storage or any treatment that you are consenting to. The clinic must also provide information about the processes involved and the procedures that you will undergo. They should give you time to reflect on this information before you sign the consent forms.

**Changing and withdrawing consents**

Any consent relating to the use and storage of eggs, sperm or embryos can be changed or withdrawn at any time by the person who gave the original consent. This is as long as the eggs, sperm or embryos concerned have not already been used in treatment or research.

If you do wish to change a consent you should get in touch with the clinic that is storing your eggs, sperm or embryos. If your consent and your partner's consent or your consent and a donor's consent become incompatible, then the embryos produced from your eggs or sperm will not be able to remain in storage or will not be able to be used for the purpose that you intended.

Any consent to storage must include a statement of what should happen to those eggs, sperm or embryos should you die or become mentally incapacitated. In other words you should state what should happen to your eggs, sperm or embryos if you become incapable of changing or withdrawing your consent.

Further information is available in the HFEA leaflet 'Consent to the use and storage of gametes and embryos'.

**Registering a man as the father of a child conceived after his death**

Although rare, there are situations where a woman may want to conceive the child of her husband or partner after his death. For example, the man may have had sperm stored prior to cancer treatment. The law in the UK has now been changed so that, subject to certain conditions being met, the man can be registered as the father of a child born in such circumstances.

Since 18 September 2003, any man wishing to be recorded as the father of a child resulting from fertility treatment undertaken after his death, must have given his written consent.

**Storage periods for eggs, sperm and embryos**

Eggs, sperm and embryos cannot be stored indefinitely. The storage period for eggs and

sperm is normally 10 years. This can be increased if either you or your partner have significantly impaired fertility. If you wish to extend the storage period, the person seeking storage must be under the age of 45 when the eggs or sperm are placed in storage. The storage period for embryos is normally five years. This can be increased to 10 years if either you or your partner have significantly impaired fertility or if your children would be at risk of inheriting a significant genetic defect. If you wish to extend the storage period, the woman who is to be treated using the embryos must be under the age of 50 when the embryos are placed in storage. In exceptional circumstances the storage period for embryos can be extended beyond 10 years. To satisfy these conditions two doctors must confirm that you or your partner have or will become prematurely infertile. This may happen following surgery or treatment for cancer.

### **Stay in contact with the clinic**

If you have sperm, eggs or embryos in storage it is very important that you notify the clinic of any change in your address or other contact details. The clinic will make reasonable efforts to get in touch with you approximately six months before the eggs, sperm or embryos reach their storage period limit. However, if they are unable to trace you and the consents are not renewed, then the clinic must allow the eggs, sperm or embryos to perish once the storage period is up. If they do not comply with this legal requirement they risk losing their HFEA licence.

It is therefore vital that you keep in contact with the clinic. If you are not sure whether they have your most recent address or whether you need to renew your consent, then you should get in contact with the clinic yourself.

## Drugs and surgery

A combination of drugs and surgery are often used to help overcome fertility problems. They are also frequently used before or alongside IVF and other fertility treatments to help increase the chances of success

Fertility drugs can help you if you aren't ovulating (producing and releasing an egg each month) or only doing so occasionally. Sometimes fertility drugs alone can help you get pregnant, but mostly they are used in conjunction with other techniques such as intrauterine insemination (IUI) and IVF. Here we examine how and when they may be used.

### What are fertility drugs?

Fertility drugs work like your body's own hormones to trigger egg production. This is called ovulation induction. There are several different types available:

#### Brain-stimulating drugs

For example, clomiphene citrate, usually known simply as Clomid.

##### What it is

The oldest and probably most widely-used fertility drug. It's used to make the ovaries produce follicles (egg sacs).

##### How do you take it?

As a pill.

##### How it works

By fooling the brain into thinking there's insufficient oestrogen, which indirectly stimulates the ovaries to produce eggs.

##### When is it used?

To treat straightforward ovulation failure in women under 40.

##### Potential side-effects

Hot flushes, mood swings, nausea, breast tenderness, insomnia, increased urination, heavy periods, breakouts of spots, weight gain. There may be a small increased risk of ovarian cancer with prolonged use (more than one year).

#### Pituitary-stimulating drugs

For example, pulsed GnRH hormones such as gonadorelin.

##### What they are

Drugs that kick the pituitary gland into action.

##### How do you take them?

You wear a small battery-operated pump that injects measured pulses of the drug directly into your bloodstream, hence the term 'pulsed'.

##### How they work

They trigger egg production in your ovaries by mimicking your body's production of a hormone produced by the pituitary.

When are they used?

For ovulation failure caused when your body fails to produce a hormone called gonadotrophin releasing hormone, GnRH.

Potential side-effects

Stomach pains, sickness and nausea, heavy periods and headaches.

### **Ovary-stimulating hormones**

For example, Gonal-f, Puregon, Menogon, Menopur, Merional.

What they are

Drugs containing follicle-stimulating hormone (FSH) and or luteinising hormone (LH).

How do you take them?

By injection into a muscle or under the skin. The injections may be given by your doctor at the clinic, your GP or practice nurse, or, following instruction, you may be given the option of doing them yourself at home.

How they work

By stimulating the ovaries directly to produce eggs. When the eggs are ripe a single injection of the hormone hCG is given to trigger ovulation and the release of an egg.

When are they used?

With intra-uterine insemination (IUI) and IVF cycles to stimulate ovulation, or if you have polycystic ovarian syndrome but your ovaries don't respond to clomid. They are also used for infertility caused by failure of the pituitary gland, and in some cases of male infertility.

Potential side-effects

Overstimulation of the ovaries, known as ovarian hyperstimulation syndrome (OHSS), see p32, increased risk of multiple pregnancy (twins, triplets or more), allergic reactions and skin reactions.

### **Other drug treatments**

When you have IVF you will usually be prescribed other drugs at various points to give the doctor greater control over the treatment cycle. They include:

#### **Cycle-suppressing drugs**

Gonadotrophin-releasing hormone analogues (drugs that copy the action of natural hormones) such as goserelin and nafarelin.

What they are

Drugs that stop the menstrual cycle.

How do you take them?

You can take these drugs by nasal spray or as a daily or monthly injection.

How they work

By blocking the release of the two hormones that control ovulation - follicle stimulating hormone (FSH) and luteinising hormone (LH).

When are they used?

Before or at the same time as fertility drugs.

Potential side-effects Hot flushes, night sweats, headache, vaginal dryness, mood swings, changes in breast size, breakout of spots and acne, sore muscles.

### **Drugs that maintain pregnancy**

Progesterone, eg Cyclogest, Gest-one, Crinone, Progynova.

What they are

Drugs that thicken the lining of the womb.

How do you take them?

By injection into the buttock, or a suppository you put in the vagina, or as a pill or a gel.

How they work

By causing the lining of the womb to become thick and juicy so it can nurture a possible embryo.

When are they used?

After the injection of hCG the pregnancy hormone or on the day embryos are put back into the womb.

Potential side-effects

Nausea, vomiting, swollen breasts.

### **Q&A**

#### **'Which treatments are licensed by the HFEA and what does this mean?'**

The HFEA licenses anything involving the mixing of sperm and eggs outside the body or any treatment involving donor material. This includes in vitro fertilisation (IVF), donor insemination (DI), intra-cytoplasmic sperm injection (ICSI), embryo freezing, preimplantation genetic diagnosis (PGD), preimplantation genetic screening for aneuploidy (PGS), gamete intra-fallopian transfer (GIFT) with donor sperm, GIFT with donor eggs.

In order to carry out these treatments, a clinic must have a licence from the HFEA.

Activities that require a licence are governed by the Human Fertilisation and Embryology Act 1990. It is illegal to pursue the following activities without a licence:

- \* Bring about the creation of an embryo in vitro (embryo includes an egg in the process of fertilisation).
- \* Keep or use an embryo.
- \* Store any gametes.
- \* Use donated sperm or donated eggs in the course of providing treatment services for any woman.
- \* Mix human gametes with the live gametes of any animal.

Clinics applying for a licence are subject to regular inspections by the HFEA. IUI, GIFT with woman's own eggs and partner's sperm and some surrogacy treatments don't have to be licensed by the HFEA. To carry out unlicensed treatments, a clinic doesn't need an appropriate licence from the HFEA.

**'If I take fertility drugs, I've heard that there's a higher chance of having twins or triplets. Is this true?'**

The injectable drugs used to stimulate ovulation do make it more likely that you will have a multiple pregnancy and birth - in other words, twins, triplets or even more. If fertility drugs are being used with IUI, many doctors will cancel a cycle where you produce a large number of follicles (egg sacs) as this increases your chance of multiple pregnancy. If you have IVF the risk of triplets is greatly reduced by replacing one or two embryos.

**Q&A**

**'I was sterilised two years ago as I didn't want more children. But now I have a new partner and we want a baby. Can I repair my tubes?'**

You can have an operation to rejoin the ends of the fallopian tubes. It is most likely to be successful if you had the sterilisation fairly recently and if the tubes were clipped rather than being tied.

Keyhole sterilisation reversal (laparoscopic anastomosis) is available. Instead of the 10cm bikini-line cut involved in traditional sterilisation reversal surgery, the surgeon makes a 1cm cut near the belly button, through which a laparoscope (a small telescope with a camera attached) is inserted to allow the surgeon to rejoin the tubes. However, open surgery is generally a more successful method.

**'My tubes are blocked because of chlamydia. I've heard that an operation may help.'**

Surgery tended to be more popular in the past when IVF and ICSI were less developed and available, but there may still be times when an operation is advisable. Blocked tubes caused by inflammation and scarring, as a result of chlamydia or another infection, is one instance. Others include fibroids, endometriosis and other problems affecting the womb or tubes. Men may also have surgery, for example to correct a varicocele or varicose vein of the testicles. These days, keyhole surgery is most often used, which makes the whole business less traumatic. The doctor at the fertility clinic should be able to advise you if surgery could help and whether it is available on the NHS.

## **IUI (intra-uterine insemination)**

Provided a woman's tubes are healthy, IUI is a relatively simple fertility treatment with a proven track record of success.

### **What does this treatment involve?**

Intra-uterine insemination (IUI) involves inserting a sample of sperm into the womb to coincide with ovulation (when the ovary releases an egg) to increase the chances of conception taking place. To stimulate egg production, the woman takes fertility drugs, while the man's sperm is prepared to select the healthiest specimens. The sperm used may either be the male partner's or donated sperm from a bank.

### **What does it involve?**

#### For her

For unstimulated cycles, IUI is carried out between day 12 and day 15 of your monthly cycle - with day one being the first day of your period. You may have blood or urine tests to identify the time of ovulation. However, some women will require fertility drugs to stimulate ovulation. If such drugs are prescribed by your doctor, they will either come as an injection or as a nasal spray.

The development of your eggs will be tracked by vaginal ultrasound scans and when an egg is mature you will be given a hormone injection to help it to ripen and release. Insemination can then take place 36 to 40 hours later.

For this procedure, the doctor inserts a speculum (a special instrument that keeps your vaginal walls apart) and threads a small catheter (a soft, flexible tube) through this and into your womb through the cervix. Sperm, which have been previously prepared to select the healthiest specimens, are then inserted through the catheter into your womb.

The whole process takes just a few minutes. After this you rest for a short time and then go home.

#### For him

If you are using your sperm, you will be asked to produce a sperm sample by masturbation before insemination takes place. If donor sperm is being used, this will be defrosted for use on the day.

### **How successful is it?**

The success rates for IUI using fertility drugs are around 15 per cent per cycle of treatment, provided that the man's sperm and the woman's tubes are healthy.

### **How soon will I know if we've been successful?**

A blood or urine test will be given. The test date will be given by the clinic.

### **Who should have this treatment?**

IUI is useful when there are problems with sperm, such as a reduced count or poor movement (often referred to as poor motility), or if the sperm are being killed by the woman's cervical mucus - sometimes it can be too thick for the sperm to pass through - or because her body is producing antibodies that attack the sperm. IUI can also help couples who are diagnosed with 'unexplained infertility', or where the couple experience

sex problems, such as impotence or premature ejaculation.

If using donor sperm for IUI treatment always use an hfea licensed clinic, as unlicensed clinics (some of whom are internet based) may sell sperm that hasn't been screened for HIV. Proper screening involves quarantining frozen sperm, which is a process that requires a licence from the HFEA.

### **Does my age come into it?**

As with other treatments, IUI tends to be more successful if the woman is younger and, therefore, more fertile.

### **What if IUI doesn't work?**

If IUI is unsuccessful there is usually some underlying factor causing your infertility and depending on the age of the female partner, the doctor may suggest moving on to a more high-tech treatment such as IVF. Everything else being equal, a reasonable length of time to try with IUI would be about three to six treatment cycles.

## **Q&A**

### **'Does IUI hurt?'**

The treatment is usually fairly painless, although some women may experience mild cramps which feel a bit like period pains. Very occasionally it may be difficult to get the catheter through the cervix and this can be quite uncomfortable. If this happens, the doctor should offer you painkillers to ease any pain.

### ***What the expert says***

'IUI is one of the simpler methods of helping couples with fertility problems. For unexplained infertility, IUI is usually the first line of treatment, followed by IVF if unsuccessful.'

## **What I learned**

### **'I kept saying, "Are you sure?"'**

Lulu, 36, and James Martin, 43, from Bedfordshire, tried IUI many times. Their baby daughter Alexandra was born following IVF treatment.

Lulu: 'After we got married, Martin and I tried for a baby for nine months, but nothing happened. I thought it might have something to do with a previous miscarriage, so we went to my GP who referred us to the hospital for tests. These all came back normal.

'The doctor put me on a drug called tamoxifen that blocks oestrogen, but it made me feel really ill so I came off it. We then moved to a new area and we were referred to a different hospital on the NHS. They did more tests and again everything was normal, so they suggested fertility drugs.

'The first month nothing happened; the second I got pregnant but miscarried at seven weeks. We then tried for another nine months without success. I went back on fertility drugs, which made me feel really ill, but still nothing happened.

'Our GP, who referred us to the hospital in the first place, then suggested we try IUI, which we did for five months. At first I hoped to manage without taking fertility drugs, but every time I ovulated it was a weekend or Bank Holiday and they couldn't do the IUI. So to give us a better chance, and more control over the timing of ovulation, we decided to use

fertility drugs. In the event, there was just one occasion when I was able to have it. I found it all incredibly stressful - at one point I was even left sitting in a waiting room full of pregnant women.

'When it didn't work we decided to go private. As soon as we walked in the door I knew we were in the right place. They answered all our questions and the consultant said our hopes of conceiving with IUI were only eight to 10 per cent and recommended IVF. It was as if someone had taken a load off our shoulders. I started the treatment in August 2001 and got pregnant straight away. I was ecstatic but also wary after two miscarriages and so many failed treatments. When they did the pregnancy test I kept saying, "Are you sure?" Alexandra was born by emergency caesarean on 6 June 2002, the exact date she was due, weighing 6lb 3oz.

'My advice to any couple going through fertility treatment is to keep talking to your partner. Luckily, Martin and I have grown closer, but it could easily drive a wedge between you. I think it also helped that we spent time sorting out our lifestyles so we were in peak health.'

### **Who offers it?**

This list only includes HFEA licensed clinics. Other clinics may also offer IUI.

- 1 ACU, King's College Hospital
- 2 ACU, Lifestyle
- 3 ACU, St James' University Hospital - Leeds
- 4 Bath Assisted Conception Clinic
- 5 Birmingham Women's Hospital
- 6 Bishop Auckland General Hospital
- 7 BMI The Chaucer Hospital
- 8 BMI Chelsfield Park ACU
- 9 BMI The Chiltern Hospital Fertility Services Unit
- 10 BMI Priory Hospital
- 11 BMI The Winterbourne Hospital
- 12 Bourn Hall Clinic
- 13 The Bridge Centre
- 14 BUPA Hospital Leicester
- 15 BUPA Manchester Fertility Services
- 16 Burton Hospitals NHS Trust
- 17 Cardiff Assisted Reproduction Unit
- 18 CARE Manchester
- 19 CARE Northampton
- 20 CARE Nottingham
- 21 CARE at The Sheffield Fertility Centre
- 22 CARE Wirral
- 23 Centre for Assisted Reproduction, Gateshead
- 24 Centre for Reproductive Medicine, Coventry
- 25 Centre for Reproductive Medicine and Fertility, Sheffield
- 26 Centre for Reproductive Medicine, University of Bristol
- 27 Chelsea & Westminster Hospital
- 28 Clarendon Wing, Leeds
- 29 Cleveland Gynaecology and Fertility Centre
- 30 CRM London
- 31 Cromwell IVF and Fertility Centre, Darlington

- 32 Cromwell IVF and Fertility Centre, London
- 33 Cromwell IVF and Fertility Centre, Swansea
- 34 Derby City General Hospital
- 35 Esperance Private Hospital
- 36 Essex Fertility Centre
- 37 Glasgow Nuffield Hospital
- 38 Glasgow Royal Infirmary
- 39 Guys Hospital
- 40 The Hammersmith Hospital
- 41 The Harley Street Fertility Centre
- 42 Homerton University Hospital
- 43 Hull IVF Unit
- 44 Isis Fertility Centre
- 45 The James Cook University Hospital
- 46 Lanarkshire Acute Hospital NHS Trust
- 47 Leicester Royal Infirmary
- 48 The Lister Fertility Clinic
- 49 Liverpool Women's Hospital
- 50 London Female and Male Fertility Centre
- 51 London Fertility Centre
- 52 London Women's Clinic/Hallam Medical Centre
- 53 Midland Fertility Services
- 54 Newcastle Fertility Centre at Life
- 55 Ninewells Hospital North East London Fertility Services
- 56 NURTURE
- 57 Origin Fertility Care
- 58 Oxford Fertility Unit
- 59 Peninsular Centre for Reproductive Medicine
- 60 Princess Anne Hospital
- 61 Queen Mary's Hospital
- 62 Queens Medical Centre Fertility Unit
- 63 Regional Fertility Centre, Belfast
- 64 Reproductive Medicine Unit, London
- 65 The Rosie Hospital
- 66 Salisbury Fertility Centre
- 67 Shirley Oaks Hospital
- 68 Shropshire and Mid-Wales Fertility Centre
- 69 South West Centre for Reproductive Medicine
- 70 Southmead Hospital
- 71 St Jude's Clinic for Fertility & Gynaecology
- 72 Subfertility Unit, James Paget Healthcare NHS Trust
- 73 Sunderland Fertility Centre
- 74 Univesity College Hospital, London
- 75 University of Aberdeen
- 76 University Hospital of Hartlepool
- 77 Wessex Fertility
- 78 West Middlesex University Hospital
- 79 Willow Suite, Thames Valley Nuffield Hospital
- 80 The Woking Nuffield Hospital

## **IVF (in vitro fertilisation)**

Each year, around 24,000 infertile couples in the UK undergo IVF treatment, with around 8000 babies being born as a result

### **What is it?**

In vitro fertilisation (IVF) literally means fertilisation 'in glass', hence the familiar name of 'test tube baby'. Eggs are removed from the ovaries and fertilised with sperm in a laboratory dish before being placed into the woman's body.

### **What does it involve?**

#### For her

IVF involves taking fertility drugs to stimulate your ovaries to produce more eggs than usual. The development of the eggs is monitored by regular ultrasound scans and blood tests. When the eggs are ready to be released, you will have an operation to collect them - this is often referred to as egg retrieval (see Collecting Eggs, p32). The eggs are then placed in a laboratory dish, mixed with sperm and left to fertilise, after which usually one or two embryos are placed in your womb. Left-over embryos may be suitable for freezing.

#### For him

You will be asked to produce fresh sperm at the clinic on the day the eggs are harvested. The sperm are collected in a sample jar and left for a short time before being washed and spun at high speed to select the healthiest specimens which are then mixed with the eggs.

### **How successful is it?**

Success rates vary, but your chance of having a baby with IVF is, on average, around 20 per cent for every try with fresh embryos and around 12 per cent with frozen ones. According to research, just over half of women under 34 will have conceived after five attempts at IVF.

### **How will I know if it's been a success?**

By taking a blood or urine test. The clinic will give you the test date.

### **Who should have this treatment?**

IVF is suitable for unexplained infertility, blocked tubes and older women.

### **Does my age come into it?**

Yes - if you're using your own eggs. The younger you are the better your chances of success with IVF. One in four women under 30 have babies after IVF but only one in 10 by the age of 40.

### **What if it doesn't work?**

If IVF is unsuccessful you can talk to the specialist about why it didn't work. Often there is no clear reason, but talking to the specialist gives you the chance to consider if, and when, you want to try again. Many specialists recommend waiting a couple of months to give yourself time to recover.

### ***What the expert says***

'Every year thousands of babies are born as a result of IVF. However, it is not the answer to all fertility problems and is only recommended where there is a genuine reason and/or because simpler methods have failed. For women over 40 with no obvious cause for fertility problems, IVF cannot overcome the decline in number and quality of eggs as women get older.'

### **Other techniques**

#### **Blastocyst transfer**

What is it?

A blastocyst is an embryo that has developed for five to six days after fertilisation. At this point the embryo has two different cell types and a central cavity. During blastocyst transfer the embryos are allowed to develop in the laboratory to the blastocyst stage before one or two of the embryos are placed in the womb.

Who might have it?

The blastocyst transfer technique may be used for female patients who have good quality embryos but which fail to implant in the womb.

How successful is it?

Since the embryos have been allowed to develop into blastocysts before being transferred this may increase the chances of successful pregnancy, but in some cases no blastocysts will develop.

#### **Assisted hatching**

What is it?

Before an embryo can attach to the wall of the womb it has to break out, or 'hatch', from a gel-like shell called the zona pellucida. Some embryos have a tougher shell which makes it more difficult for them to hatch, so the doctor may make a tiny hole in the shell before the embryo is placed in the womb. This hole can be made using acid, laser or mechanical methods.

Who might have it?

Assisted hatching may be used for a number of reasons including the following:

- \* The woman is over 40 and producing eggs with harder shells, or if she is younger but her eggs are running out (as detected by a hormone blood test).
- \* You have had three or more unsuccessful attempts at IVF, despite healthy embryos having been put back.

How successful is it?

Some doctors claim that assisted hatching results in better pregnancy rates but others feel that there is still too little information to support its use.

### **Q&A**

#### **'What is natural cycle IVF?'**

Natural cycle IVF involves collecting and fertilising the one egg you release during your

normal monthly cycle. This avoids the side-effects of fertility drugs (see Drug Reactions, p32) and you're also less likely to have twins or triplets. And because your ovaries are not being artificially stimulated, they do not need to rest after IVF as they do when fertility drugs are used, so you can have another go sooner.

Success rates are more or less the same as with conventional IVF over three to four goes. It may be worth trying if you your periods are fairly regular and you are ovulating normally but you have blocked tubes or unexplained infertility. Not all clinics offer this treatment.

**'I'm 40 and the doctor told me I'm more likely to get pregnant if I start treatment on the second day of my period. Is this true?'**

Before fertility drugs can be given, the doctor has to over-ride your natural monthly cycle by switching off the action of your pituitary gland. Normally this is done by starting you on blocking drugs a week before your period is due - on the 21st day of your cycle. If you're over 37, however, or don't have many eggs left, you may not develop enough good eggs to get pregnant this way. Starting blocking drugs on the second day of your period may kick start your ovaries into producing more and better quality eggs.

**'Our doctor is sending us to an IVF clinic that's miles away from where we live. Can I have treatment closer to home?'**

You may be able to have 'satellite IVF'. With this most of the early stages of treatment can take place at your local clinic or hospital. Only the actual placing of the embryos in your body is done at the IVF clinic.

The big advantage of satellite IVF is that it is less disruptive to your life, so you are not so likely to need to take time off work. And, of course, you're saved the time, cost and energy of travelling backwards and forwards to the IVF clinic. Sometimes eggs can also be retrieved at the local unit and then taken to the IVF clinic in a portable incubator. This is known as 'transport IVF'.

A list of satellite and transport clinics is available on p57.

**Top tip**

Bear in mind that your chance of conceiving in any monthly cycle is 20 to 30 per cent, even if you and your partner aren't experiencing fertility problems.

**What I learned**

**'Our GP shared our treatment costs'**

Joanne Bedford, 39, and her partner, Alistair Chapman, have three children - Greg, 10, and four-year-old twins Rowan and Dominic. Greg was conceived after Joanne took fertility drugs and the twins were born as a result of IVF following several unsuccessful attempts at IUI.

Joanne: 'When I was younger I had erratic periods and my GP put me on the Pill to help regulate them. When I came off it, however, I didn't get pregnant, so I was given fertility drugs. After only one month of taking them I became pregnant with our first son Greg.

'When Alistair and I decided to try for another baby, we weren't so lucky. I tried fertility drugs for 18 months but nothing happened, then we were advised to try IUI. We had a

total of seven cycles, none of which was successful. Our consultant then suggested IVF.

We were considered too old for NHS treatment at our local hospital, and the fact that we already had one child didn't help. So we did some research and found a small clinic about an hour away that seemed to have a good take-home baby rate. On the first attempt I produced 17 follicles (egg sacs), so we were very hopeful. But when they collected the eggs there were lots of empty follicles and only four good eggs, which was very disappointing. I was not prepared for the egg retrieval process being so painful - although I understand that this is unusual.

'The following day we were told that three of the eggs were fertilised, and the day after I had all of them put back. At that time, unlike today, there was no limit of two eggs being implanted. Two weeks later we went back to the clinic for a pregnancy test and, to our joy, it was a strong positive.

'By that time I had already started to feel sick so I was pretty sure I was pregnant. Two weeks later I had a scan, which showed two heart beats. That moment was fantastic and one I will never forget.

'At 39 weeks, Rowan and Dominic were born by emergency caesarean, weighing in at 7lb each.

'Our GP agreed to share the treatment costs with us and paid for all the drug costs for the IUI and for one cycle of IVF, which was a substantial amount. We then only had the procedures to fund. The IUI cost us £200 for each cycle and the IVF was around £1800, with drug costs of £150 for each IUI cycle and about £1700 for the IVF.

'Because of the costs involved, it's vital to think about what you're going to do if things don't work out, rather than just going on and on. We put aside £8500 to cover three attempts and decided to stop if they didn't work. I was just so lucky to conceive at our first go at IVF.'

### **The process**

IVF involves several complex steps. Techniques differ slightly from clinic to clinic, but a typical pattern of treatment is as follows:

#### **Boosting egg supply**

Drugs are given, either by injection or nasal spray, to block the hormones produced by your pituitary gland during your monthly cycle. This gives your doctor better control over when your eggs are produced. Other drugs are then given to make your ovaries produce more than one egg - either by injection or as tablets.

#### **Checking on development**

You'll have vaginal ultrasound scans to see how your eggs are developing, and sometimes blood tests to detect rising levels of oestrogen produced by the eggs. When the scan and blood tests show the time is right, an injection of another hormone is given to ripen the eggs. Timing is crucial as the injection must be given 34 to 38 hours before egg collection - this may mean having it last thing at night.

## **Collecting eggs**

Eggs are collected in one of two ways:

1Ultrasound guidance. The doctor uses vaginal ultrasound to produce pictures on a TV screen. A thin needle is inserted through your vagina into each ovary. The doctor guides the probe into each egg sac in turn and sucks the egg into the probe. You'll be given either a drug to make you drowsy or a general anaesthetic. The whole procedure takes about 30 minutes.

2Laparoscopy. A laparoscope (a small telescope with a light attached) is inserted through a small cut in your stomach and a fine, hollow needle is inserted to remove the eggs. This is usually done under general anaesthetic.

## **Sperm collection**

A couple of hours before your eggs are collected, your partner will be asked for a sperm sample. This is prepared by washing and spinning it to sort out the most active, healthy sperm. If donated sperm is to be used, the sample is taken from the freezer and carefully thawed before being prepared in the same way.

## **Fertilising the eggs**

Sperm is mixed with the eggs in a special fluid and left overnight in a laboratory dish. 16-20 hours later the eggs are checked to see if any have fertilised. Any that have not fertilised or that have fertilised abnormally are discarded. The remaining embryos are left a further 24 hours before being checked again to see how they are developing. The embryos are replaced two to five days after retrieval.

## **Transferring the embryos**

Usually one or two healthy embryos are chosen and injected into the womb through the cervix using a fine, thin tube (catheter). Any suitable remaining embryos may be frozen for further attempts.

## **Supporting the pregnancy**

Two days after your eggs are collected you're given progesterone (as pessaries, injections or gel) to help prepare the lining of your womb to receive the eggs.

## **Getting the results**

The clinic will take a blood or urine test, and they will give you the test date.

## **Treatment reactions**

IVF, like all medical treatments, has potential side-effects.

## **Drug reaction**

What it is

A mild reaction to the drugs.

Symptoms

Hot flushes, feeling down, irritability, headaches and restlessness.

What to do

Nothing, if symptoms don't get worse; they usually go away on their own.

## **Ovarian Hyperstimulation Syndrome (OHSS)**

### What it is

A potentially dangerous over-reaction to drugs used to stimulate egg production. Cysts develop on the ovaries and fluid collects in the stomach. In severe cases (one to two per cent) the ovaries become swollen and fluid may fill the stomach and chest cavities. A fall in the concentration of red blood cells can lead to blood clots. Blood flow to the kidneys may also be reduced.

### Symptoms

Swollen stomach and stomach pains, nausea and vomiting, shortness of breath, fainting and reduced urine.

### What to do

OHSS is potentially very serious, so report your symptoms to the clinic. They may decide to abandon treatment. If you are badly affected you may have to go to hospital as an emergency.

## **Ectopic Pregnancy**

### What it is

When an embryo develops in a fallopian tube rather than the womb. There appears to be a greater risk in women who have IVF, especially those with problems affecting the tubes.

### Symptoms

Vaginal bleeding, one-sided and often severe stomach pain, sickness, fainting or light-headedness.

### What to do

Report any vaginal bleeding or stomach pain to your doctor. You'll have a pregnancy test and be scanned to find out what's happening.

## **Q&A**

### **'Can I have more than two eggs replaced? I've heard it could boost my chances of pregnancy.'**

Research shows that limiting the number of eggs or embryos transferred during treatment to two reduces the number of multiple pregnancies, without causing a significant decrease in the pregnancy rate.

For this reason the HFEA Code of Practice states that, 'Where women are using their own fresh or frozen eggs or embryos: women aged under 40 should receive no more than either two eggs or embryos in any one cycle, regardless of the procedure used; women aged 40 or over at the time of transfer should receive no more than either three eggs or embryos in any one cycle, regardless of the procedure used.'

However, where the fresh or frozen eggs or embryos used are donated, no more than two eggs or embryos may be transferred, regardless of a woman's age at the time of treatment. This is because the egg donors are fertile women who have to be under the age of 36.

### **Risks of multiple pregnancy**

There are a number of major health risks associated with multiple pregnancy, both for the mother and the unborn children. Multiple births are more likely to be premature and the babies below normal birth weight. The incidence of cerebral palsy is approximately five times higher for twins, and 18 times higher for triplets, than for single births. Also, the risk of death before birth or in the first week of life is more than four times greater for twins, and almost seven times greater for triplets, than single births.

More information about multiple births can be found in the HFEA patient leaflet, *Avoiding Multiple Births - Deciding How Many Embryos to Transfer*, or by contacting the Multiple Births Foundation or TAMBA (see Useful Contacts, p110).

### **'I'm 35. Can I have IVF on the NHS?'**

Since only about 25 per cent of IVF treatments are provided by the NHS, you'll need to contact your local health authority/primary care trust to find out if they're willing to pay for treatment. In February 2004, the National Institute for Clinical Excellence (NICE) is expected to publish new guidelines which may change the availability of funding for IVF treatment on the NHS.

### **What I learned**

#### **'It's devastating each time it fails'**

Mary, 35, and Andy Blaxland, 33, from Hampshire, have been trying for a baby since 1998. They started out on the NHS but have since gone private for four attempts at IVF/ICSI.

Andy: 'We started trying for a baby five years ago. After 18 months without success we went to the GP. We discovered that I had poor quality sperm and Mary had borderline problems with ovulation. We were told we had just a one per cent chance of conceiving naturally. It was shocking news. It is just not something you expect to hear.

'Further tests showed that Mary had a large ovarian cyst which made it even more unlikely she could get pregnant without help. Mary took fertility drugs for three months but they didn't work and we were told our best option was IVF with ICSI. We had our first attempt two years ago and since then we have had three more tries, but so far it has not been successful.

'Each time you discover it hasn't worked it's devastating. The treatment can be emotionally and physically stressful - especially for Mary who has to go through the business of taking fertility drugs, having eggs removed and embryos replaced. You feel completely numb and it gets worse each time.

'We had our last attempt a month ago and we really don't know where to go from here. The head of the clinic said there's a strong chance that it's not going to work now.

'We are currently talking to other clinics to see if they can offer anything different. But we have to accept that we may now be facing the most difficult decision of all: to stop having treatment.

'If I was to offer advice to other couples going through the same thing as Mary and me, I'd say that you have to have lots of patience. You have to wait for appointments, and when

you have had tests there's an agonising wait while the results to come through. It's hard, but it's also important to recognise that there are no guarantees of success. As a couple you need incredible strength to go through treatment.'

### **Who offers it?**

- 1 ACU, King's College Hospital
- 2 ACU, Lifestyle
- 3 ACU, St James' University Hospital - Leeds
- 4 Bart's and the London Fertility Centre
- 5 Bath Assisted Conception Clinic
- 6 Birmingham Women's Hospital
- 7 BMI The Chaucer Hospital
- 8 BMI Chelsfield Park ACU
- 9 BMI The Chiltern Hospital Fertility Services Unit
- 10 BMI Priory Hospital
- 11 BMI The Winterbourne Hospital
- 12 Bourn Hall Clinic
- 13 Brentwood Fertility Centre
- 14 The Bridge Centre
- 15 BUPA Hospital Leicester
- 16 BUPA Manchester Fertility Services
- 17 Burton Hospitals NHS Trust
- 18 Cardiff Assisted Reproduction Unit
- 19 CARE Manchester
- 20 CARE Northampton
- 21 CARE Nottingham
- 22 CARE at The Sheffield Fertility Centre
- 23 CARE Wirral
- 24 Centre for Assisted Reproduction, Gateshead
- 25 Centre for Reproductive Medicine, Coventry
- 26 Centre for Reproductive Medicine and Fertility, Sheffield
- 27 Centre for Reproductive Medicine, University of Bristol
- 28 Chelsea & Westminster Hospital
- 29 Clarendon Wing, Leeds
- 30 CRM London
- 31 Cromwell IVF and Fertility Centre, Darlington
- 32 Cromwell IVF and Fertility Centre, London
- 33 Cromwell IVF and Fertility Centre, Swansea
- 34 Edinburgh Assisted Conception Unit
- 35 Esperance Private Hospital
- 36 Essex Fertility Centre
- 37 Glasgow Nuffield Hospital
- 38 Glasgow Royal Infirmary
- 39 Guys Hospital
- 40 The Hammersmith Hospital
- 41 The Harley Street Fertility Centre
- 42 Homerton University Hospital
- 43 Hull IVF Unit
- 44 Isis Fertility Centre
- 45 The James Cook University Hospital

- 46 Leicester Royal Infirmary
- 47 The Lister Fertility Clinic
- 48 Liverpool Women's Hospital
- 49 London Female and Male Fertility Centre
- 50 London Fertility Centre
- 51 London Women's Clinic/Hallam Medical Centre
- 52 Midland Fertility Services
- 53 Newcastle Fertility Centre at Life
- 54 Ninewells Hospital
- 55 NURTURE
- 56 Origin Fertility Care
- 57 Oxford Fertility Unit
- 58 Peninsular Centre for Reproductive Medicine
- 59 Princess Anne Hospital
- 60 Regional Fertility Centre, Belfast
- 61 Salisbury Fertility Centre
- 62 Shropshire and Mid-Wales Fertility Centre
- 63 South West Centre for Reproductive Medicine
- 64 Southmead Hospital
- 65 St Jude's Clinic for Fertility & Gynaecology
- 66 St Mary's Hospital
- 67 University College Hospital, London
- 68 University of Aberdeen
- 69 University Hospital of Hartlepool
- 70 Wessex Fertility
- 71 Willow Suite, Thames Valley Nuffield Hospital
- 72 The Woking Nuffield Hospital

### **Why does IVF so often fail?**

It is often thought that IVF has a high failure rate, when, in fact, the overall success rate is about the same as for natural conception - around 20 to 30 per cent each cycle - and sometimes it is better. The chances of actually having a baby are slightly less, however, because women may miscarry early on - just as they do in natural conception.

Because female fertility diminishes with age, your chances of successfully conceiving with IVF are lower if you're an older woman. By your early 40s your chance of success with IVF is no more than five per cent and by 45, sadly, it is virtually nil.

### **Did you know?**

Scientists and doctors took over 10 years to develop IVF treatment. Born in July 1978 to a blaze of publicity, Louise Brown was the first ever 'test tube' baby.

### **Chromosome counts**

Chromosomes are tiny structures found in the centre of each cell in the body. Each chromosome carries thousands of genes that instruct your body how to work.

Chromosomes are made up of two chains of genetic material called DNA. There are 23 pairs of chromosomes (46 altogether) in each of our cells, except for eggs and sperm, which each have 23 chromosomes. When these fuse together they create a single human being with the usual 46 chromosomes.

## **Genetic testing**

Twelve clinics in the UK are currently licensed to carry out genetic tests on embryos to detect certain inherited diseases and problems before they are placed back in the womb. The tests are high tech and therefore expensive.

### **Why is it done?**

To ensure that only unaffected embryos are selected. Conventional tests for genetic diseases cannot be carried out until the 12th week of pregnancy. Testing the embryo before it is implanted can enable couples who are carriers of genetic diseases avoid the agonising choice of whether to have a termination (abortion) if the embryo is affected.

### **PGD (preimplantation genetic diagnosis)**

What is it?

A way of checking the genes of three-day-old embryos produced by IVF for serious genetic diseases such as haemophilia and cystic fibrosis.

Who might have it?

Women who have had several terminations (abortions) because the baby had a genetic disease, or couples who already have a child with a genetic disease and are at high risk of having another or who know that they are at risk of genetic disorders.

How is it done?

In the laboratory one cell is extracted from the embryo and examined for specific genetic faults. Some genetic diseases, such as haemophilia and Duchenne muscular dystrophy, only affect males. In this case, the cell is examined to find out the sex of the embryo and only female embryos are replaced.

### **PGS (preimplantation genetic screening)**

What is it?

A way of testing embryos produced by IVF to make sure they contain the right number of chromosomes. It is also called aneuploidy screening. Aneuploidy is where the embryo has the wrong number of chromosomes - for example Down syndrome where there are three number 21 chromosomes instead of the usual two.

Who might have it?

Women over 35 who are at a high risk of having a baby with a chromosome problem such as Down syndrome or with a family history of chromosome problems. It may also be offered if you have a history of recurrent miscarriages, or have had several IVF treatments that have been unsuccessful.

How is it done?

As for PGD, except that chromosomes are examined to see how many there are and if they are normal.

### **Who offers it?**

PGD

1 The Bridge Centre

- 2 CARE Nottingham
- 3 Clarendon Wing, Leeds
- 4 Glasgow Royal Infirmary
- 5 Guys Hospital
- 6 The Hammersmith Hospital
- 7 University College Hospital, London

PGS

- 1 Assisted Reproduction and Gynaecology Centre
- 2 The Bridge Centre
- 3 CARE Manchester
- 4 CARE Nottingham
- 5 The Hammersmith Hospital
- 6 Reproductive Genetics Institute
- 7 University College Hospital, London

## **GIFT (gamete intra-fallopian transfer)**

Used in fertility clinics since the 1980s, GIFT was one of the earliest artificial reproduction treatments

### **What is it?**

GIFT stands for gamete intra-fallopian transfer. The word gametes means either eggs or sperm. Eggs and sperm are collected exactly as for IVF and are then prepared to select the healthiest specimens before being mixed together and placed in one of the fallopian tubes, down which eggs pass from the ovaries to the womb. Fertilisation then occurs in the woman's body, exactly as it would naturally.

### **What does it involve?**

#### For her

Your doctor will want to ensure your fallopian tubes are healthy before suggesting GIFT. You may be given a uterine dye test (hysterosalpingogram) and possibly a laparoscopy to check they are healthy.

Up to the point of egg collection GIFT is exactly the same as IVF. To perform GIFT, you have to have a laparoscopy, a procedure in which the doctor uses a small telescope with a light attached (laparoscope) to view the womb and fallopian tubes. Your doctor makes a small 5mm cut in your tummy through which the laparoscope is inserted. The healthiest one or two eggs are mixed with prepared sperm in a fine, flexible tube (catheter) and the doctor inserts this through the laparoscope.

The eggs are then deposited at the womb end of one or both fallopian tubes. You need to have a short rest before going home. You will be given progesterone injections, pessaries or gel to prepare the lining of your womb to receive any fertilised eggs.

#### For him

He will be asked to produce a sperm sample by masturbation on the day the eggs are collected. If donor sperm from a sperm bank is used the sperm will be carefully thawed before being mixed with your eggs.

### **How successful is it?**

Success rates vary from clinic to clinic, but the average success rates are around 25 to 30 percent of women getting pregnant in any one attempt at pregnancy (treatment cycle).

### **How will I know if it's been a success?**

By taking a blood or urine test. The clinic will give you the test date.

### **Who can have this treatment?**

GIFT can help in many cases of unexplained infertility, since your fallopian tubes aren't blocked or damaged. It can also help if a man has a low sperm count or sperm with low motility. It isn't very useful for men with severe fertility problems. The doctor may recommend having an initial trial of IVF to ensure that the man's sperm are able to fertilise the woman's eggs. If they are, GIFT may be used in the next treatment cycle or cycles instead of repeating IVF.

**Does my age come into it?**

Like all fertility treatments GIFT is most successful in younger women.

**Is GIFT licensed by the HFEA?**

The treatment is only licensed when donor sperm or eggs are used.

**What if it doesn't work?**

Talk to the specialist about why GIFT didn't work for you and whether you want to have another go or whether to go on to a more sophisticated treatment such as IVF.

**Who offers it?**

This list only includes HFEA licensed clinics. Other clinics may also offer GIFT if partner sperm is used.

- 1 BMI The Chiltern Hospital Fertility Services Unit
- 2 BMI Priory Hospital
- 3 BMI The Winterbourne Hospital
- 4 The Bridge Centre
- 5 BUPA Hospital Leicester
- 6 CARE Manchester
- 7 Centre for Reproductive Medicine, Coventry
- 8 Clarendon Wing, Leeds
- 9 CRM London
- 10 Esperance Private Hospital
- 11 Essex Fertility Centre
- 12 The Hammersmith Hospital
- 13 The Harley Street Fertility Centre
- 14 Hull IVF Unit
- 15 The James Cook University Hospital
- 16 Leicester Royal Infirmary
- 17 The Lister Fertility Clinic
- 18 Liverpool Women's Hospital
- 19 London Female and Male Fertility Centre
- 20 London Fertility Centre
- 21 Newcastle Fertility Centre at Life
- 22 Ninewells Hospital
- 23 Queen Mary's Hospital
- 24 Salisbury Fertility Centre
- 25 Shropshire and Mid-Wales Fertility Centre
- 26 St Mary's Hospital
- 27 University College Hospital, London
- 28 University Hospital of Hartlepool
- 29 Wessex Fertility
- 30 Willow Suite, Thames Valley Nuffield Hospital
- 31 The Woking Nuffield Hospital

## **ICSI (intra-cytoplasmic sperm injection)**

ICSI - the biggest advance in fertility treatment since IVF - has revolutionised the treatment of male infertility. Sperm injection or ICSI was first used in 1992 and the first UK baby was delivered in 1993. Today over 2000 babies a year are born in the UK as a result of this treatment

### **What is it?**

With the introduction of ICSI the treatment of male infertility took a massive step forward. The procedure involves injecting a single sperm directly into the centre or cytoplasm of an egg which is then placed in the woman's body using conventional IVF methods.

### **What does it involve?**

#### For her

You take fertility drugs to stimulate your ovaries to produce more eggs. These are then collected and fertilised before being placed back in your womb in exactly the same way as for conventional IVF treatment.

#### For him

You'll be asked to produce a fresh sperm sample by masturbating on the same day your partner's eggs are collected. Sometimes, if there's a problem that means you can't produce a sample, a small operation can be done to remove your sperm (see below). This is known as surgical sperm retrieval.

### **Who should have this treatment?**

ICSI is ideal for men with a very low sperm count or a damaged or missing vas deferens (the pair of tubes that carries sperm from the testicles to the penis). It's especially useful where sperm cannot penetrate the egg for some reason, or where sperm are abnormally shaped and cannot swim. ICSI can also help men who have had a vasectomy and couples who have tried conventional IVF several times without success because the sperm have not fertilised enough eggs.

### **Does my age come into it?**

If you are a man your age is not so relevant because sperm are produced freshly all the time and only apparently healthy sperm will be chosen for ICSI.

If you are a woman - and using your own eggs - the success rate, as with IVF, is higher the younger you are.

### **How successful is it?**

ICSI can hugely boost your odds of having a baby as the sperm doesn't have to travel to the egg or penetrate it. Success depends a lot on the skill and experience of the clinic. But as the technique has become more common, success rates have improved.

### **How will I know if it's been a success?**

A blood or urine test will be given. The test date will be given by the clinic.

### **What if it doesn't work?**

You will have an appointment with the specialist to discuss the reasons it did not succeed. Any suitable remaining embryos may be frozen for further attempts

### **Where can I get more information?**

The HFEA produces a patient leaflet on ICSI, which provides further information (contact the HFEA for details).

### ***What the expert says***

'ICSI has helped many thousands of couples to have a baby where the main problem is with the man's sperm. It has proved especially useful when his sperm count is very low and/or the quality of his sperm is poor. Because a very low sperm count can sometimes be due to genetic problems that could be passed on to a boy baby, it is advisable for a man to have a blood test to check for any such problems before deciding to go ahead with ICSI treatment.'

### **Q&A**

#### **'I've heard that ICSI can cause birth defects. Will my baby be all right?'**

ICSI is still pretty new and there have been concerns about it, the first being that infertile men might pass on their infertility to their sons through their genes. The second is that the process of injecting the sperm into the egg could cause damage. A 2003 study comparing 541 children conceived by ICSI and 440 by IVF with 542 who were conceived naturally, is reassuring. At age five, it found that the ICSI and IVF children were doing just as well as ones who were conceived naturally. They did, however, have a slightly higher level of minor malformations, although this could be due to flaws in the study.

It's still not known whether boys conceived by ICSI inherit their father's infertility. If you're worried about risks or safety talk to your clinic. They should be able to give you the latest information and discuss any risks. It is also a good idea for men having ICSI to have counselling.

#### **'My partner was married before and had a vasectomy. He has tried unsuccessfully to have it reversed. Can anything be done?'**

Sperm can be collected directly from the epididymis - where sperm are made - or from the testicles by means of one of two kinds of operation. However sperm may not always be present. PESA (short for percutaneous epididymal sperm aspiration) involves guiding a small needle through the skin into the epididymis to draw out a small amount of fluid containing sperm. TESE (short for testicular sperm extraction) uses a small needle to remove a small amount of tissue directly from the testes. In both cases, the collected sperm can be used to fertilise the eggs by means of ICSI.

### **What I learned**

#### **'No two cycles are exactly the same'**

Sam McCuish, 29, lives in Glasgow with her partner Angus, 34. Their daughter Abbey was born in 2002 after successful IVF with ICSI.

Sam: 'I'd always had painful, irregular periods and in my late teens was diagnosed with mild endometriosis and polycystic ovarian syndrome, so I knew it was likely that I would need help to conceive. Angus and I married in 2000 and although a tiny part of me was still dreaming about getting pregnant naturally, deep down I knew it was unlikely.'

'It was Angus who suggested I should see a private doctor. I was given a referral by my GP and met the specialist in April 2001 when I was 26. He ordered a few standard tests to

see if I was ovulating, plus a sperm test for Angus. I was nervous about going home with this little plastic tube, but he was brilliant, he just laughed about it.

'Unfortunately the results were not good. I was not ovulating, which meant that simple treatment with fertility drugs wasn't an option, and, to our surprise, Angus' sperm count was too low for IVF alone and we were told that we would have to have ICSI.

'In a way it made it better because we were both equal. We started treatment in June 2001 and it wasn't too bad. I responded well to the drugs and we got eight eggs. The egg collection was fine I slept through most of it and pretty much the rest of the day. Five eggs fertilised but only two were suitable by day three and we had those transferred.

'The next two weeks were incredibly nerve racking but we tried to stay positive. We discussed doing a pregnancy test before going back to the clinic and eventually agreed that - despite our superstition - we would rather be prepared for the news, be it good or bad. However, the day before we were due at the clinic, I was out walking when I had a wave of nausea. I bought a test and did it right away - it was positive. I couldn't contain myself, I had to call Angus right away. Our daughter Abbey was born on 6 April 2002, weighing 7lb 5oz. She's the most precious thing in the world to us, and we are so grateful for every day we spend with her.

'I think it's important not to expect too much. We have recently had two more cycles but without success. It's important to recognise that no two cycles are going to be the same. We desperately want another baby but if it is not to be we will accept that.'

#### **Who offers it?**

- 1 ACU, King's College Hospital
- 2 ACU, Lifestyle
- 3 ACU, St James' University Hospital - Leeds
- 4 Assisted Reproduction and Gynaecology Centre
- 5 Bart's and the London Fertility Centre
- 6 Bath Assisted Conception Clinic
- 7 Birmingham Women's Hospital
- 8 BMI The Chaucer Hospital
- 9 BMI Chelsfield Park ACU
- 10 BMI The Chiltern Hospital Fertility Services Unit
- 11 BMI Priory Hospital
- 12 BMI The Winterbourne Hospital
- 13 Bourn Hall Clinic
- 14 Brentwood Fertility Centre
- 15 The Bridge Centre
- 16 BUPA Hospital Leicester
- 17 BUPA Manchester Fertility Services
- 18 Burton Hospitals NHS Trust
- 19 Cardiff Assisted Reproduction Unit
- 20 CARE Manchester
- 21 CARE Northampton
- 22 CARE Nottingham
- 23 CARE at The Sheffield Fertility Centre
- 24 CARE Wirral

- 25 Centre for Assisted Reproduction, Gateshead
- 26 Centre for Reproductive Medicine, Coventry
- 27 Centre for Reproductive Medicine and Fertility, Sheffield
- 28 Centre for Reproductive Medicine, University of Bristol
- 29 Chelsea & Westminster Hospital
- 30 Clarendon Wing, Leeds
- 31 CRM London
- 32 Cromwell IVF and Fertility Centre, Darlington
- 33 Cromwell IVF and Fertility Centre, London
- 34 Cromwell IVF and Fertility Centre, Swansea
- 35 Edinburgh Assisted Conception Unit
- 36 Esperance Private Hospital
- 37 Essex Fertility Centre
- 38 Glasgow Nuffield Hospital
- 39 Glasgow Royal Infirmary
- 40 Guys Hospital
- 41 The Hammersmith Hospital
- 42 The Harley Street Fertility Centre
- 43 Homerton University Hospital
- 44 Hull IVF Unit
- 45 Isis Fertility Centre
- 46 The James Cook University Hospital
- 47 Leicester Royal Infirmary
- 48 The Lister Fertility Clinic
- 49 Liverpool Women's Hospital
- 50 London Female and Male Fertility Centre
- 51 London Fertility Centre
- 52 London Women's Clinic/Hallam Medical Centre
- 53 Midland Fertility Services
- 54 Newcastle Fertility Centre at Life
- 55 Ninewells Hospital
- 56 NURTURE
- 57 Origin Fertility Care
- 58 Oxford Fertility Unit
- 59 Peninsular Centre for Reproductive Medicine
- 60 Princess Anne Hospital
- 61 Regional Fertility Centre, Belfast
- 62 Reproductive Genetics Institute
- 63 Salisbury Fertility Centre
- 64 Shropshire and Mid-Wales Fertility Centre
- 65 South West Centre for Reproductive Medicine
- 66 St Jude's Clinic for Fertility & Gynaecology
- 67 St Mary's Hospital
- 68 University College Hospital, London
- 69 University of Aberdeen
- 70 University Hospital of Hartlepool
- 71 Wessex Fertility
- 72 Willow Suite, Thames Valley Nuffield Hospital
- 73 The Woking Nuffield Hospital

## **Sperm, egg and embryo donation**

About 1500 babies in the UK are born every year using donated sperm, eggs or embryos and around 100 clinics are licensed by the HFEA to provide such treatment. Here we look at what's involved and examine some of the issues you may need to think about

### **Sperm donation**

#### **What does this treatment mean?**

Sperm from a man who has agreed to be a donor is used to help the woman get pregnant.

#### **Who might choose this treatment?**

Couples where the man is producing little or no sperm, has had a vasectomy or a failed vasectomy reversal, or if the sperm is poor quality and unlikely to be able to fertilise an egg. It is also used in couples if the man has a high risk of passing on an inherited disease.

Single women and lesbian couples who want to have a baby without having sex with a man can use sperm donation.

#### **What does the treatment involve?**

##### For her

The clinic may run a few tests to ensure you are producing eggs and that your tubes are healthy. The insemination is done at your fertile time of the month, when you are ovulating. The clinic may recommend watching for clues such as temperature change or changes in the position of your cervix (as explained in Section 1). Alternatively they may suggest using urine or blood tests or ultrasound scans. Some clinics recommend fertility drugs to help maximise your chances. The sperm is loaded into a thin tube. This is then used to place the sperm at the neck of your womb (cervix) or into the womb itself. Your partner may want to share in your baby's conception and may be able to be with you. After this you rest for a while and go home.

##### For partner

Talk to your partner about being present during the insemination process.

#### **How successful is it?**

According to the latest HFEA figures, with each attempt at donor insemination (DI) women under 30 have a 10 to 12 per cent chance of having a baby. This drops to nine per cent from 35 to 39. Once over 40 there is just a three to four per cent chance for each cycle of treatment - about the same as conceiving normally. You're most likely to conceive within the first six attempts at DI. After that, chances decrease. It's not unusual to have to wait even longer - depending on your age and natural fertility.

#### **How will I know if it's been a success?**

By taking a blood or urine test. The clinic will give you the test date.

#### **How soon will I know?**

A pregnancy test should be accurate a couple of weeks after insemination, around the time your period is due.

**Does age come into it?**

As with all types of assisted conception and conception generally, the younger the female partner the more fertile she is.

**What if it doesn't work?**

You will need to see the specialist to decide whether to try again and, if so, whether to use the same method.

**Who are the sperm donors?**

The man donating the sperm will not usually be anyone you know. However, some clinics let you use sperm donated by a friend or family member (a known donor), if that is what you want. The HFEA has made rules about sperm donation to ensure that sperm comes from men who are healthy and free from sexually transmitted infections and some genetic defects.

Donors have to be between 18 and 45 with a good supply of healthy, active sperm. Before being accepted as a donor the man is offered counselling to help understand the implications. HFEA regulations mean that all clinics offering sperm donation have to freeze donated sperm samples for six months. This allows time for the donor to be tested for infections such as HIV and Hepatitis which can take up to six months to detect. Provided the sperm is healthy it can then be used. Sperm donors can be paid up to £15 plus expenses for each sample they give.

**Where are they from?**

Most sperm comes from UK donors, but because of a shortage of sperm donors some clinics use imported sperm. Your clinic will tell you if this is the case. The clinic has to get HFEA authorisation to use imported sperm and to make sure that the sperm conforms to the same safety standards as donated sperm from men living in this country. Foreign donors must give written consent before their sperm is exported and must know about UK laws on sperm donation. If sperm from abroad is used you need to think about what you will tell your child and whether you will bring them up with a knowledge of the culture of the donor's country of origin.

If you are a man and woman being treated together, you need to consider the legal situation. Firstly you both sign consent forms agreeing to the treatment. This allows the man to have his name on the baby's birth certificate and to be the baby's legal father. If you are married, the man shares parental responsibility with his wife, ie, he will have a say over how to raise the child.

If you are not married, it is a bit more complicated: although legally the child will be the male partner's, he will not have any rights over how to raise the child. To ensure the man has a full say in your child's upbringing, you need to ask a solicitor. The donor has no legal or financial responsibility for the child.

**What I learned****'Secrecy wasn't going to work'**

Carolyn Stephenson, 31, and her husband, John, 35, both teachers, have a son Reuben,

nearly three, who was conceived by donor insemination. They live in Northumberland.

Carolyn: 'We married in 1996 and did not think about children for a year or so. We had a fairly easy-going approach, but when nothing happened I went to our GP. He suggested John did a sperm test, which came back as 'low'. We were then invited to see a urologist at the hospital where we learned that John's sperm count was not just low, it was non-existent. We were told that if we wanted children we would have to consider adoption or sperm donation. We felt it wasn't handled very sensitively - it was such shocking news, yet immediately afterwards we had to walk out into a waiting room full of people.

'I would have considered adoption but John wasn't very keen. He wanted us to try sperm donation. It took me a while to come round to the idea - after all, by using my eggs, our baby would share my genes. We were referred to a local NHS fertility unit in the Midlands near where we were living at the time.

'At first we thought if we were going ahead it would have to be secret. But after joining the Donor Conception Network we began to realise that secrecy wasn't going to square with the whole thing working.

'The actual procedure was fairly straightforward. I had ovulation stimulation with clomid (the fertility drug that stimulates egg development) and injectables, which wasn't particularly pleasant as it caused hot flushes. Then I had to go for regular scans to track the development of my eggs. I was told if more than three follicles developed they wouldn't be able to go ahead, but it was fine. The insemination itself was a bit like a smear test. It was done by a nurse and was very low key and low tech.

'The first try I didn't get pregnant, and even though we knew that instant success was unlikely, I was very disappointed when my period started. But the second month I conceived and our son Reuben was born nine months later.

'Since then we decided we would like a brother or sister for Reuben, but it hasn't proved straightforward. We've had four unsuccessful attempts. We were offered the option of using the same donor we had used for Reuben to create a brother or sister and thought that was a good idea - but, unfortunately, there was no more sperm available. The clinic suggested asking the donor for further donations, yet that felt a little bit too personal and we decided not to pursue it.

'We feel it is not very important who the man is, as the only daddy Reuben will know is John. Right now we've moved house and we've decided to put it on the back burner for a bit.

'We learned that good healthy families can't be based on lies and secrecy and we are already introducing the idea to Reuben so it doesn't come as a shock later. There is a third person involved but it doesn't intrude in any way on our relationship with Reuben. It isn't something we think about all the time. It's there, but we are too busy getting on with being a family and bringing up our son for it to make a huge difference.'

### **Donor anonymity - how the situation has changed**

Under existing regulations people donating sperm, eggs or embryos have remained anonymous. However, a change in the law is planned which means that children born as a

result of sperm, eggs or embryos donated from 1 April 2005 will be able to access the identity of their donor when they reach the age of 18.

Why has donor anonymity been removed?

Many individuals and organisations, including the HFEA, believe that children born from donated sperm, eggs or embryos should be able to have access to information about their genetic origins.

How does this affect existing donors?

The new regulations surrounding information on donors will not be retrospective. This means that anybody who has registered as a donor before 1 April 2005 will remain anonymous.

How will this affect the future availability of donors?

It is acknowledged that ending donor anonymity does involve some risk to the future availability of donors. However, the HFEA does not feel that this practical consideration should outweigh the more fundamental principle that donor offspring should have knowledge about their genetic origins.

What information about the donor can be provided to people undergoing treatment?

The clinic may be able to provide information about the physical characteristics, background, interests and occupation of the donor. There may also be a pen portrait, which the donor is encouraged to write.

What information can be accessed by people born as a result of donations made before 1 April 2005?

When they reach the age of 18, they may ask the HFEA to confirm whether they were born as a result of donated sperm, eggs or embryos. Those intending to marry, including those who plan to do so before their 18th birthday, may also ask whether the HFEA Register shows that they are related to the person they intend to marry.

## Q&A

### **'Having to consider this way of having a family has come as a shock. There's so much to think about. Where can we get help?'**

Every clinic providing treatment must offer you the chance to talk to an independent counsellor, who is experienced in helping people discuss the issues that face them. Many clinics run local patient support groups you can join. The Donor Conception Network is a national support group for people who have children conceived through DI - as well as those having or considering treatment.

### **'I'm worried my baby won't look like my partner. Should I be?'**

Every baby, whether born from sperm donation or not, is a unique individual. The clinic should do its best to use sperm from a man who is a reasonable match for the skin, hair and eye colour, blood group and body build as your partner. But given the shortage of sperm donors, it may not be possible to get an exact match.

Even if characteristics are matched, of course, there is no guarantee that your baby will look like you and your partner. However, strangely enough, many couples have found that people comment on the family likeness of children born from donor sperm.

### **'Should I tell the child, or keep it secret?'**

Evidence suggests that keeping secrets can be damaging for family relationships. People who are told when they are still young that they have been conceived by donor insemination can't be shocked later to find that they've been misled. Sadly this has happened in quite a number of cases.

People over 18 (or 16 if they intend to marry) are entitled to consult the HFEA register to see if they have been conceived by donor insemination. So honesty is ultimately the best policy. Of course, you may not want everyone to know immediately and you are entitled to privacy about who you tell.

### **'How do men feel about it?'**

It's not easy to come to terms with having a child that's not genetically related to you. There's a real loss for you both to overcome and it often takes some time and lots of talking - something you may not be used to. But genetic connection isn't what makes for a loving family as lots of 'DI dads' have proved.

### **'How do women feel about it?'**

You wanted his baby, not another man's. You may feel sad, disappointed, or even angry at first. Your partner may feel he's to blame, and some men aren't good at talking about their feelings. So there may be lots to think about before you're ready to go ahead. When you are ready, creating a family this way may be fulfilling for you both.

### **'How do children feel about it?'**

Very young children feel rather proud of being 'special', that's all. If you aren't embarrassed, they won't feel worried. Gradually they understand the implications, but by this time it's been part of the family story, so conversations about who's inherited what from who are relaxed. Some are curious about who the donor is, others are not bothered.

### **'I'm not married. Will the clinic treat me?'**

Before agreeing to treat anyone, clinics have to consider the welfare of the future child, including the need for a father. Some clinics only treat married couples or couples in a long-term relationship. Others are happy to treat single women and lesbian couples.

### **'Can we use the same donor for another baby?'**

Yes. The law allows a maximum of ten children to be born using a single donor's sperm, but this number is increased for siblings. You may need to pay for sperm from that donor to be stored for you.

### **Vital checks**

Before you go ahead the doctor may do a pre-pregnancy check which includes taking a medical and family history and doing a general and internal examination. You may also have a number of tests such as an ultrasound scan and blood tests to check hormone levels, blood group and so on. If you are over 40 you'll have a blood sugar and blood pressure measurement.

### **Next steps**

- \* Don't rush into it. You may need time to come to terms with your situation. Only go ahead when you are both ready.
- \* Talk about it. Discussing how you feel with your partner will only get you so far. You will each cope in different ways. Can you get support from friends or family? Someone outside

such as a counsellor can often help.

\* Join a self-help group. The Donor Conception Network can put you in touch with others who are in the same situation. There may also be a support group attached to the clinic.

\* Think about how you are going to tell your child. You may find it helpful to bring the subject into conversations when the child is young. Later on when they become more aware of the facts of life you can give them a more detailed explanation. The Donor Conception Network publishes books to help you tell children about donor conception.

## **Egg donation**

If a woman is unable to produce her own eggs, an egg from another woman can help her to have a baby. Since 1991 almost 18,000 babies have been born following egg donation.

### **What does this treatment mean?**

Eggs from another woman - someone you know or given anonymously - are fertilised with the your male partner's or donor sperm and implanted into the woman's body.

### **What does it involve?**

#### For her

Your menstrual cycle is synchronised with that of the donor and your womb prepared to receive the eggs by hormone replacement therapy (HRT). After the eggs are collected from the donor and fertilised, the healthiest embryos are transferred into your body as in an IVF cycle. An alternative is to transfer the eggs by GIFT (gamete intra-fallopian transfer). In this case, you then take the hormone progesterone for a couple of weeks to help the embryo implant in the womb.

#### For him

You'll usually have to give a sperm sample to check you are producing healthy, active sperm. On the day of the egg collection you'll be asked for another sperm sample by masturbation (unless donor sperm is being used). This is mixed with the donor eggs and used either to fertilise the eggs for use in IVF or used in gamete intra-fallopian transfer (GIFT p35). If you have a low sperm count or poor quality sperm, the eggs may be fertilised by ICSI (p36).

### **The donor**

You take fertility drugs to stimulate your ovaries to produce several eggs which are monitored by ultrasound scans and blood tests. Once the eggs are ready to be released, you are injected with a pregnancy hormone to ripen the eggs and, 36 hours later, your eggs are collected as for conventional IVF. To avoid getting pregnant yourself, you are advised not to have unprotected sex following egg collection - until your next period.

### **Who might choose this treatment**

If you are a woman, egg donation may be the answer if you:

- \* Have had an early menopause.
- \* Have no ovaries or had them removed.
- \* Have had cancer treatment which has damaged the ovaries.
- \* Are producing few or low quality eggs.
- \* Have tried to conceive unsuccessfully using fertility drugs or IVF.
- \* Have had several unexplained miscarriages (recurrent miscarriage).

- \* Have irregular periods caused by hormonal imbalance.
- \* Have a high risk of passing on an inherited disorder such as haemophilia Duchenne muscular dystrophy or Huntington's chorea.

### **How successful is it?**

The chances of success are often higher than with conventional IVF using your own eggs. This is because the eggs are donated by women under 36 who are usually more fertile. Your chances of having a baby using egg donation are 25 to 40 per cent for each attempt.

### **How will I know if it's been a success?**

By taking a blood or urine test. The clinic will give you the test date.

### **How soon will I know?**

A pregnancy test should be accurate a couple of weeks after the eggs are transferred. An ultrasound scan at around six weeks will confirm whether you are pregnant and if so, how many embryos have implanted.

### **Does age come into it?**

The age of the egg donor is more crucial than the age of the recipient. The maximum age for egg donors in the UK is 35.

### **What if it doesn't work?**

See the specialist to discuss what went wrong and if it's worth trying again. There may be several disappointments or failed cycles, so you will need to decide whether to have another attempt using an egg donor. If so you will need to find out if you can use the same donor again.

### **Ways to find a donor**

There is a severe shortage of donors and it is not unusual to wait two to five years to find someone willing to donate an egg. This can be agonising. Here are some ways to help speed things up.

- \* The fertility clinic may be able to find you a donor. But, because of waiting lists and shortage of donor eggs, they may suggest you try to find a donor yourself.
- \* A friend, relative or workmate may be willing to donate an egg.
- \* By sharing donated eggs with another woman. Because of the shortage of egg donors some IVF clinics share donor eggs between two women waiting for a baby. The eggs are shared equally, provided enough are collected (see p19).

### **Who might come forward?**

In the UK egg donors cannot be paid more than £15 plus expenses, so women who donate eggs usually do so because they want to help another woman. Increasingly women having IVF themselves may share their eggs in return for free or discounted treatment. You can read about these in the IVF section.

### **Exploring the issues**

There's lots to think about before having egg donation treatment. Here are a few questions to discuss with your partner:

- \* What if it doesn't work? There is no guarantee of success. Think about how you will feel.
- \* How do you feel about receiving eggs from someone you know? How will it affect your relationship and feelings for each other? How might she feel about you raising your child

differently to hers?

\* How do you feel about receiving eggs from someone you don't know? It can help to find out as much as you can from the clinic about the donor.

\* What will you tell friends and family? You need to think about who you will tell and who you will keep it private from.

\* How will you tell your child? Remember, keeping secrets in families uses a lot of energy that can be better used creating a happy family life.

### **Becoming a donor**

You may have a very personal reason for wanting to help other people. You may simply want to help others, or share your good fortune as a parent, and not know or care who will benefit from your donation.

Your decision will have an important impact on the people who receive your donation, on anyone who is born as a result of your donation, and even on you.

The donation of sperm or eggs is not the same as the donation of blood or kidneys. A whole person may be created who will become a young child, then teenager and maybe eventually a parent in his or her own right.

Take time to consider how you might feel about your donation in years to come. You will have an indisputable link to any child you helped to create, and therefore some very special responsibilities which no one else can assume on your behalf. Can you imagine how this child might feel? To wonder about who they may look like, where they get their talents and personality traits from, and what their genetic family history is? To wonder why and in what circumstances you decided to donate?

The clinic has to offer you counselling before you consent to your eggs or sperm being used. Of course, you don't have to accept this offer, but it does give you the chance to discuss the ins and outs with someone who is trained to listen. It also allows you to air any worries you may have.

### **Here are some questions you might like to consider:**

\* How do you feel about giving away your eggs or sperm and not knowing whether they resulted in a baby and if so what they might be like?

\* How does your partner and your family feel about you donating your eggs or sperm to someone else?

\* How might you feel if your eggs or sperm don't make a baby?

\* How will you feel in the future knowing that - even if you never have children yourself - you may have children who are genetically related to you being brought up by other people?

### **Thinking of sharing your eggs?**

Undergoing IVF yourself, you probably didn't think of yourself as an egg donor, but that's what you will become. Children who are genetically yours may be born. So you'll need to think about the questions raised here. Also...

\* How would you feel if your eggs make a baby for the other couple, but not for you?

\* As a first step, it's important to provide information about yourself that both parents and the child can have access to. The clinic will provide you with a form on which to record basic details - and you can add more. Medical history is important, but so is information about your personal history, your personality and talents, and how you felt about donation.

\* Think about who you are going to tell about your decision to donate. Talk to some people. If you feel you can't talk to anyone, this may be a sign that donation isn't for you, as a secret as large as this would be hard to bear.

### ***What the expert says***

'Egg donation can be even more successful than conventional IVF, but couples and donors should be advised to think very carefully before going ahead as the technique raises many difficult emotional and ethical issues.'

### **5 things you must know about egg donation and the law**

- 1 The couple receiving the egg and the donor must both give written consent before starting the treatment.
- 2 Under the Human Fertilisation and Embryology Act donors must give 'informed consent' to the use and storage of their eggs and any resulting embryos before treatment starts. This includes information about what is involved, the implications of donation and how long the eggs can be stored.
- 3 The donor has the right to decide how she wants her particular eggs or embryos to be used. For instance she may want to use some for treatment and others for research. Alternatively, she may only want her eggs used by a particular woman.
- 4 Before giving consent the donor must have received proper information and have been offered counselling.
- 5 The woman who carries and gives birth to the baby (the recipient) is legally the baby's mother and if she has a partner, he is the father.

### **Q&A**

#### **How do women feel about it?**

It's not easy to come to terms with having a child that's not going to be genetically related to you. You may think your partner will blame you for the problems. When you're ready, be reassured that creating a family this way will be fulfilling for you both.

#### **How do men feel about it?**

You may feel a bit left out of the picture. Your partner is feeling a loss that you may or may not share. Your support is vital. Be prepared for lots of talk about feelings that you may not be used to. The joy of becoming a dad can be even greater because of what you've been through.

#### **How do children feel about it?**

As egg donation treatment only started in 1983, there's less experience of how older children feel. But it's likely that it will be similar to the feelings of children conceived by donor insemination (see previous section).

#### **Will fresh or frozen embryos be used?**

The embryos transferred can be either fresh or frozen. However most clinics prefer fresh embryos because there is a better chance of you becoming pregnant.

#### **Can the donor change her mind?**

The donor will be asked to consent to the use and storage of her eggs and any embryos that result. But by law she has the right to change her mind at any time until an embryo from one of her eggs is placed in your womb.

#### **Who will our baby look like?**

As far as possible the clinic will try and match your baby to your skin colour and

characteristics such as eye colour, height and weight, build and complexion. Of course, your baby's looks can never be completely guaranteed - whether or not you use egg donation.

## **Embryo donation**

### **What does this treatment mean?**

Couples who have had successful IVF or ICSI treatment may decide to donate their spare embryos to help other infertile couples. The woman who is receiving the embryos will be treated in the same way as a woman undergoing frozen embryo transfer (see p46). As with egg and sperm donation the embryo donors' physical characteristics will be matched as closely as possible with those of the recipients.

### **Who might choose this treatment?**

- \* Women who have been born without ovaries of their own (Turner Syndrome).
- \* Women who have a premature menopause (which can occur as early as 20 years of age).
- \* Women who have problems releasing eggs from their ovaries.
- \* Women who have had their ovaries damaged, for example by radiotherapy drugs.
- \* Those who have disorders such as Huntington's chorea who do not want to risk passing this on to their children.
- \* Single women who are menopausal.
- \* Men who have no sperm.

## **What I learned**

### **'All my worries have faded away'**

Alison Veal, 40, and her husband, civil servant Andrew Veal, 39, have twins, Gemma and Alexander. They are four months old and were conceived by donor conception after six unsuccessful attempts at IVF. Their fertility problems were 'unexplained.' They live together in Gloucestershire.

Alison says: "When we decided to try egg donation, I had to deal with the sense of loss and the thought that if we did manage to have a baby, it wouldn't be completely "ours". I found that particularly difficult because my father is dead and my brother and sister are not having children. I also worried that the baby, or babies, would feel like 'strangers'. We were also concerned about the implications for the children. Was it right to put them in the position of having to deal with the way they were conceived? And how could we go about helping them?"

"The hardest thing to bear was the thought of the donor being anonymous. We checked out with friends to see if we could find a donor who we knew, but they were all over 35, which is the cut-off age. Then, although my sister was willing to help, she was living in another country. We put ads out, I wrote an article and we also advertised in magazines. In the end we got a donor through our clinic - a woman who herself had children through IVF and wanted "to give something back".

"She was 30 so we knew there was more chance of being successful, but even so, after so many tries at IVF with my own eggs, I was fairly pessimistic about our chances of success. However, she produced 12 eggs and six went to me and six went to another

recipient. All six of the eggs fertilised. Two embryos were transferred and I became pregnant straightaway.

'The pregnancy was awful. I was dreadfully sick and had to be hospitalised - but it did mean that I didn't have time to dwell on things. The twins were born by emergency caesarean section, Alex weighing 6lb 8oz and Gemma weighing 4lb 1oz. It was the most amazingly wonderful moment. I would love to know more about the donor so I could tell the children. And I would love her to know about Gemma and Alex, and that is a sadness.

'However, all the things I worried about have disappeared. Alex looks just like his daddy, and amazingly, Gemma looks like me. We are really delighted with the two of them.'

### **Who offers it?**

Donor sperm, eggs and embryos

- 1 ACU, King's College Hospital
- 2 ACU, Lifestyle
- 3 ACU, St James' University Hospital - Leeds
- 4 Assisted Reproduction and Gynaecology Centre
- 5 Bart's and the London Fertility Centre
- 6 Bath Assisted Conception Clinic
- 7 Birmingham Women's Hospital
- 8 BMI The Chiltern Hospital Fertility Services Unit
- 9 BMI Priory Hospital
- 10 BMI The Winterbourne Hospital
- 11 Bourn Hall Clinic
- 12 The Bridge Centre
- 13 BUPA Hospital Leicester
- 14 BUPA Manchester Fertility Services
- 15 Burton Hospitals NHS Trust
- 16 Cardiff Assisted Reproduction Unit
- 17 CARE Manchester
- 18 CARE Northampton
- 19 CARE Nottingham
- 20 CARE at The Sheffield Fertility Centre
- 21 Centre for Reproductive Medicine, Coventry
- 22 Centre for Reproductive Medicine and Fertility, Sheffield
- 23 Centre for Reproductive Medicine, University of Bristol
- 24 Chelsea & Westminster Hospital
- 25 CRM London
- 26 Cromwell IVF and Fertility Centre, Darlington
- 27 Cromwell IVF and Fertility Centre, London
- 28 Cromwell IVF and Fertility Centre, Swansea
- 29 Edinburgh Assisted Conception Unit
- 30 Esperance Private Hospital
- 31 Essex Fertility Centre
- 32 Glasgow Royal Infirmary
- 33 Guys Hospital
- 34 The Hammersmith Hospital
- 35 The Harley Street Fertility Centre

- 36 Homerton University Hospital
- 37 Hull IVF Unit
- 38 Isis Fertility Centre
- 39 The James Cook University Hospital
- 40 Leicester Royal Infirmary
- 41 The Lister Fertility Clinic
- 42 Liverpool Women's Hospital
- 43 London Female and Male Fertility Centre
- 44 London Fertility Centre
- 45 London Women's Clinic/Hallam Medical Centre
- 46 Midland Fertility Services
- 47 Newcastle Fertility Centre at Life
- 48 Ninewells Hospital
- 49 NURTURE
- 50 Oxford Fertility Unit
- 51 Peninsular Centre for Reproductive Medicine
- 52 Princess Anne Hospital
- 53 Regional Fertility Centre, Belfast
- 54 South West Centre for Reproductive Medicine
- 55 St Jude's Clinic for Fertility & Gynaecology
- 56 St Mary's Hospital
- 57 University College Hospital, London
- 58 University of Aberdeen
- 59 Wessex Fertility
- 60 The Woking Nuffield Hospital

#### Donor sperm and eggs

- 1 BMI The Chaucer Hospital
- 2 Brentwood Fertility Centre
- 3 Clarendon Wing, Leeds
- 4 Glasgow Nuffield Hospital
- 5 Reproductive Genetics Institute
- 6 Salisbury Fertility Centre
- 7 Willow Suite, Thames Valley Nuffield Hospital

#### Donor sperm only

- 1 BMI Chelsfield Park ACU
- 2 CARE Wirral
- 3 Centre for Assisted Reproduction, Gateshead
- 4 Origin Fertility Care
- 5 Queen Mary's Hospital
- 6 Shropshire and Mid-Wales Fertility Centre
- 7 University Hospital of Hartlepool

#### Donor eggs only

- 1 Southmead Hospital

## **Surrogacy**

If there is no other way of having a baby surrogacy - when another woman carries your baby - could work for you

### **What does the treatment mean?**

Surrogacy is when another woman carries and gives birth to a baby for you.

### **What is involved?**

It depends on the type of surrogacy (see box left). In straight surrogacy the surrogate mother is impregnated with the male partner's sperm (or sometimes donated sperm) by artificial insemination or intrauterine insemination (IUI).

In host surrogacy the surrogate mother has the embryo implanted in her womb by IVF or IVF/intra-cytoplasmic sperm injection (ICSI).

### **Who should have it?**

If you have a medical condition making it impossible or dangerous to get pregnant and give birth, or have failed with IVF.

### **A matter of law**

The baby will have its father's surname on the birth certificate and that will be its surname if you want. If the surrogate is unmarried she will be listed as the mother and, if she is married, her husband's name will go on the birth certificate as well.

There are several options:

- \* Parental Responsibility Agreement: The father has a Parental Responsibility Agreement with the surrogate which gives him the same rights, duties and responsibility for the child as the surrogate. If the surrogate doesn't enter into this the father can apply for a Parental Responsibility Order on his own.

- \* Parental order: The female partner can apply for a Parental Order through the courts, which removes the surrogate mother's parental rights and transfers them to her, a bit like adoption. To do this you must be married, living in the UK and over the age of 18. The application must be made when the baby is between six weeks and six months old. Some courts ask for a paternity test if the baby has been conceived using the male partner's sperm. The surrogate mother then has to give up all rights to the baby.

- \* Adoption: If you are married, you and your partner can apply for an adoption order any time after the baby has been with you for three months. The surrogate mother doesn't have to agree to this. If you are not married only one of you can adopt the child.

- \* Residence order. The court can make a Residence Order which specifies where the child will live. The order is not permanent, however.

### **Know your terms**

#### **Straight surrogacy, Partial surrogacy, Genetic surrogacy**

What is it?

The surrogate or 'host' mother is inseminated with the male partner's sperm or donated sperm - either by artificial insemination, intrauterine insemination or rarely by having sex with the male partner. The baby will have the surrogate mother's genes and the male

partner's genes.

How is it arranged?

By private agreement either with or without a fertility clinic being involved - unless donated sperm or intrauterine insemination is used, when you will have to use a clinic's services.

### **Host surrogacy, IVF surrogacy, Full surrogacy**

What is it?

Using the male partner's sperm and the female partner's eggs, the surrogate mother has IVF to get pregnant. The baby is genetically your child and unrelated to the surrogate mother. Where the male partner's sperm is used to fertilise a donated egg, the egg donor is the genetic mother, the male partner the genetic father and the surrogate mother is, again, genetically unrelated to the baby.

How is it arranged?

IVF surrogacy can only take place in a clinic licensed by the HFEA for IVF.

### **Q&A**

#### **How can we find a surrogate?**

Fertility clinics are not allowed to find a surrogate mother for you, so you will have to find one yourself. A relative or friend may be willing to help. But, if no one comes forward or you would rather not use someone you know, the organisations COTS (Childlessness Overcome through Surrogacy) and Surrogacy UK may be able help you. You will find their details at the end of the guide.

#### **What should we look for in a surrogate?**

You will want to choose a woman capable of having a safe, healthy pregnancy and birth. It is also vital to feel that you build up a trusting relationship with the surrogate and agree on things like having antenatal testing - for example for spina bifida or Down syndrome - and what you would do if the baby is abnormal. It is a good idea to get counselling before starting the surrogacy process, to help you think about all the questions involved, and to get legal advice.

#### **What if the surrogate mother changes her mind?**

It doesn't happen often but the surrogate has the legal right to change her mind, even when the baby she gave birth to is not genetically related to her. This is very difficult for everyone concerned and that's why it is vital that you trust each other and are clear about what is going to happen.

#### **Do we have to pay the surrogate?**

No. In the US and some parts of the world surrogates are paid, but this is not allowed in the UK. You can, however, pay 'reasonable expenses' - costs incurred by the surrogate, for example, clothes, travel expenses and loss of earnings.

#### ***What the expert says***

'Surrogacy can work extremely well and achieve similar success rates with standard IVF. It does, however, involve considerable ethical and legal issues and the couple receiving the baby, the surrogate mother and her family should be advised to have extensive

counselling before embarking upon treatment.'

**Who offers it?**

- 1 ACU, King's College Hospital
- 2 ACU, St James' University Hospital - Leeds
- 3 Bart's and the London Fertility Centre
- 4 Birmingham Women's Hospital
- 5 The Bridge Centre
- 6 BUPA Hospital Leicester
- 7 BUPA Manchester Fertility Services
- 8 Cardiff Assisted Reproduction Unit
- 9 CARE Nottingham
- 10 Centre for Reproductive Medicine, Coventry
- 11 Clarendon Wing, Leeds
- 12 CRM London
- 13 Edinburgh Assisted Conception Unit
- 14 Esperance Private Hospital
- 15 Glasgow Nuffield Hospital
- 16 Guys Hospital
- 17 The Hammersmith Hospital
- 18 Homerton University Hospital
- 19 Hull IVF Unit
- 20 Isis Fertility Centre
- 21 The James Cook University Hospital
- 22 London Fertility Centre
- 23 London Women's Clinic/Hallam Medical Centre
- 24 Midland Fertility Services
- 25 Newcastle Fertility Centre at Life
- 26 Ninewells Hospital
- 27 Oxford Fertility Unit
- 28 Regional Fertility Centre, Belfast
- 29 St Jude's Clinic for Fertility & Gynaecology
- 30 St Mary's Hospital
- 31 University College Hospital, London
- 32 University of Aberdeen
- 33 Wessex Fertility

## **Embryo freezing and storage**

If the embryos created during an IVF cycle are not all used, you can choose to have them frozen and stored. An estimated 15-20,000 babies in the UK have been born using frozen, thawed embryos.

### **Why embryos might be stored**

HFEA guidelines state that clinics can only transfer a maximum of two embryos if you're under 40 and three embryos if you're 40 or over. This is to reduce the risk of multiple pregnancy (giving birth to twins, triplets or more). During IVF treatment, the ovaries are stimulated to produce more eggs than usual, and this means that more healthy embryos are often created than can be used right away.

You and your partner will need to think about what you want to do with any surplus embryos created from your eggs and sperm, or donor eggs or sperm. Most fertility clinics providing IVF or ICSI will give you the chance to have them frozen and stored. This may be part of the IVF package, or you may have to pay extra.

Embryos can also be stored from attempts at IVF that have to be cancelled, for example because you over-respond to the drugs used to stimulate egg production. You can read more about why treatments may be cancelled in the section 'When treatment fails'.

### **How may the stored embryos be used?**

Having your embryos stored means that, should you decide to have another go at IVF, you can do so without having to go through the expensive and sometimes difficult process of egg stimulation and collection all over again. This can help you avoid the need to take more fertility drugs and reduce the risk of your ovaries being overstimulated (Ovarian Hyper-stimulation Syndrome).

Alternatively, if you have completed your family or decide to call a halt to IVF, you may wish to donate your 'spare' embryos to another couple or allow them to be used in research.

If you donate your embryos for use in research, they could be used in stem cell studies. Stem cells have the potential to turn into any kind of cell. If researchers can work out how stem cells do this, they could potentially help people with many currently incurable conditions such as Alzheimer's, Parkinson's disease, diabetes, heart disease and some kinds of cancer. Of course your embryos can only be used in this way if you give your written consent. Further information can be found in the HFEA patient leaflet 'Embryo Research'.

### **What does it involve?**

Before your embryos can be stored, they must be frozen in a vat of liquid nitrogen or nitrogen gas. The medical term is cryo-preservation from the Greek word cryo meaning cold. A special liquid, called a cryoprotectant, is added to save the embryos from freezer damage.

Not all embryos are suitable for freezing. Only those that are developing normally and have not fragmented or broken up survive freezing. Furthermore, even with careful

freezing, some embryos do not survive the freezing or thawing process. And for this reason you may be advised to have more embryos thawed than you intend to have implanted.

### **Decisions, decisions**

Before your embryos can be stored, the clinic will ask you and your partner to sign a form agreeing to your embryos being frozen and stored. This will include how long you want your embryos kept, how they may be used and what you want to happen if one of you dies or becomes incapable of withdrawing your consent.

### **How long can embryos be stored?**

If you do decide to have your embryos frozen, you will have to tell the clinic how long you want them stored. Many clinics recommend that you choose an initial five-year storage period - the maximum usually allowed by the HFEA - bearing in mind that you can change your mind at any point by writing to the clinic. During this time the clinic should contact you every year or so to ensure you wish to continue having your embryos stored. At the end of the storage period the clinic will get in touch and ask you if you wish to extend the storage period. Don't forget to notify the clinic if you change address or if your circumstances change in any other way, for example if you split up or divorce.

In certain situations you may be allowed to store your frozen embryos for longer - up to 10 years. For example, if you or your partner have been diagnosed as infertile and are likely to want to use your embryos for future tries at IVF or where your children are at risk of a genetically inherited disease or problem.

Very occasionally you may be allowed to store your frozen embryos for even longer than 10 years, for example if you or your partner become infertile as a result of cancer treatment. In this case the embryos cannot be stored once the woman reaches 55 (unless you turn 55 during the first five years of storage).

### **Q&A**

#### **We want to use some of our frozen embryos to try and have another baby. What will happen?**

It depends on why you need fertility treatment and what your doctor suggests. If you have regular periods and your clinic is open every day for treatment, the doctor may suggest using a natural cycle. You may have ultrasound scans to check the development of your eggs and either urine or blood tests to detect when you have released an egg.

This allows the doctor to thaw and replace the embryos at the time when your womb lining is at its most receptive. This method is best suited to women who have regular periods and is usually offered by treatment centres that are able to offer a seven day service.

If you don't have regular periods or if you don't have periods at all, the doctor may suggest using HRT (hormone replacement therapy) to dampen down your natural hormones and induce a false 'period'. After this, you are given progesterone to help make your womb lining favourable to receive an embryo, and the embryos are then thawed and replaced in the womb.

**Wasn't there an incident of a mix-up with some frozen embryos which led to a white couple having a black baby? Could it happen to us?**

In the case you're thinking of, the wrong embryos were in fact fresh embryos. All clinics are required to have methods of double checking the identity of the people having treatment. The identity of the embryos and patient are also double checked prior to transfer. Last year the HFEA introduced a new Incident Alert System enabling licensed clinics to share lessons learnt from any actual incidents or near misses to reduce the risk of anything similar occurring again.

**We want to have another go at IVF using our frozen embryos. What are our chances of success?**

It has to be said that the chances of having a baby using a frozen then thawed embryo are usually quite a bit lower than with a fresh embryo. The good news is that your chances of becoming pregnant with a frozen thawed embryo are not affected by how long the embryos have been stored.

**What happens if my husband and I divorce? Who do the embryos belong to?**

If either partner withdraws their consent, the clinic has to allow the frozen embryos to perish. Once a man or woman has withdrawn his or her consent, the HFEA requires the clinic to take every reasonable step to inform both parties - either by telephone or in writing - that the embryos are going to be allowed to perish.

**Who offers it?**

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- 21 CARE Nottingham
- 22 CARE at The Sheffield Fertility Centre
- 23 CARE Wirral
- 24 Centre for Assisted Reproduction, Gateshead
- 25 Centre for Reproductive Medicine, Coventry
- 26 Centre for Reproductive Medicine and Fertility, Sheffield
- 27 Centre for Reproductive Medicine, University of Bristol

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- 44 Isis Fertility Centre
- 45 The James Cook University Hospital
- 46 Leicester Royal Infirmary
- 47 The Lister Fertility Clinic
- 48 Liverpool Women's Hospital
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- 63 Shropshire and Mid-Wales Fertility Centre
- 64 South West Centre for Reproductive Medicine
- 65 Southmead Hospital
- 66 St Jude's Clinic for Fertility & Gynaecology
- 67 St Mary's Hospital
- 68 University College Hospital, London
- 69 University of Aberdeen
- 70 University Hospital of Hartlepool
- 71 Wessex Fertility
- 72 Willow Suite, Thames Valley Nuffield Hospital
- 73 The Woking Nuffield Hospital

## **Pregnant at last!**

If you discover you're expecting a baby after, perhaps, years of fertility treatment you are likely to be overjoyed. But a positive pregnancy test is just the beginning - here we look at what might happen next

### **Finding out you're pregnant**

The clinic may do a blood test a couple of weeks after the embryos are transferred. But you may not want to wait that long or feel you want to be prepared for the news - whether it's going to be good or bad - and do a test yourself.

Most pregnancy testing kits are pretty accurate at a couple of weeks. If the result is negative or you get only a weak positive, you may want to do another one a few days later to double check. If you do take the test yourself it is important that you inform the clinic of the result so that this information can be entered on the HFEA register.

If you are pregnant, of course, you may soon start to notice other clues such as missing your period, feeling or being sick, sore breasts, wanting to go to the loo more often, tiredness, sensitivity to strong tastes and smells and mood swings.

### **Dealing with feelings**

After the roller-coaster of all your fertility tests and treatment you may find it hard to believe that you are actually pregnant. You may feel happy one minute, then scared the next. Whatever your feelings, try to accept them. Most mums-to-be experience a mixture of different emotions as they begin to take in the reality that this is really it - whether they have conceived with fertility treatment or not.

### **What happens next?**

The degree to which the fertility clinic will remain involved with your care varies. Some clinics stay in touch in the early weeks of pregnancy and do one or more ultrasound scans to check that the baby is healthy and developing normally. But if your clinic doesn't offer continued care, you will need to make arrangements for your antenatal care and birth.

If you are going with the NHS the first step is to visit your GP who will arrange a 'booking' visit at the hospital, when you will meet the midwives and doctors who will look after you during pregnancy. If you're going private you'll need to make an appointment with a private consultant.

Antenatal care usually doesn't start until around the 12th week of pregnancy, but during these first three months you may feel particularly in need of support. Some fertility clinics will encourage you to stay in contact and you may find it helpful to talk to the clinic's counsellor. Alternatively, the clinic may be able to put you in touch with other women who have had a baby after fertility treatment and who will know how you are feeling.

### **Making connections**

If you had fertility treatment at a large NHS hospital with a maternity unit attached (even if you paid privately) or in a large private hospital with a maternity unit, there may be links between the two and your notes should be passed from one to the other so they know your history. If not, however, it will be up to you to tell the doctors and midwives caring for

you during your pregnancy about your fertility treatment. You may want to think about how much you want to disclose, for instance whether you want to tell them if you got pregnant by sperm or egg donation.

### **Will your pregnancy be the same as if you'd conceived 'naturally'?**

Emotionally you may find it tougher than someone who conceived in the usual way, but physically your pregnancy should be no different to any other mum-to-be. There are some situations, however, that may make you more likely to need extra care or monitoring - such as more scans or more appointments at the hospital. These include:

- \* Previous miscarriages or stillbirths.
- \* Your age - older women can be more at risk of complications, such as pregnancy diabetes and pre-eclampsia (the high blood pressure disease of pregnancy).
- \* Expecting twins, triplets or more.
- \* Your general health.

### **Will the baby be normal?**

The good news is that hundreds of thousands of healthy babies all over the world have been born as a result of fertility treatment. All medical treatments carry risks as well as benefits, however, and there is a one to two per cent risk of any baby - regardless of the way in which it was conceived - having an abnormality.

Although it is only natural to worry, bear in mind that, even if your baby does have problems, they are likely to be minor and that there is every chance you will give birth to a wonderful, bouncing baby. The doctors and midwives will be aware of how precious your baby is and will do all they can to help make sure he or she is healthy.

### **Birth and beyond...**

The joy of finally holding your baby in your arms is indescribable. Life will never be the same as you face the joys and challenges that lie ahead. But whatever the future holds for you and your family, yours will always be a special baby. Congratulations!

### **Q&A**

#### **'Am I at greater risk of miscarrying after fertility treatment?'**

Following a 'natural' conception, 10 to 15 per cent of pregnancies end in miscarriage. After IVF treatment, the risk is around 15 to 20 per cent. This slightly higher figure is because the pregnancy test is done very early and women having fertility treatment are, on average, older than those who conceive naturally (the risk of miscarriage rises with age).

#### **'I feel really nervous about my pregnancy. Is there anyone I can talk to?'**

It can sometimes be hard after all your fertility treatment to be just an ordinary mum-to-be, rather than a 'fertility patient'. Talking to a counsellor or joining a patient-support group can help you deal with any anxieties you may have and help put your mind at rest.

#### **'I've been told I have an increased risk of ectopic pregnancy because my tubes are blocked. What is this?'**

An ectopic pregnancy is one in which the embryo begins to grow outside the uterus. In such cases the embryo is often located in the fallopian tube but can sometimes be found in the ovary, cervix or elsewhere in the abdomen. The risk of an ectopic pregnancy is slightly higher if you have blocked or damaged tubes.

Tell-tale signs to watch out for include pains low down in your stomach and vaginal

bleeding. If you experience these symptoms, ultrasound scans and blood tests can help confirm the diagnosis. If you do have an ectopic pregnancy, the fallopian tube may need to be removed. In some cases, though, it may be possible to preserve it.

## **When treatment fails**

If treatment doesn't work it is a good idea to take some time to recover - physically and emotionally - before thinking about whether you want to try again.

### **Finding out why**

After the physical stress of treatment and the build up of hopes it can be devastating if treatment has to be cancelled or you miscarry. Once you have recovered, the first step is to make an appointment with the specialist to talk over what went wrong. It is a good idea to ask how many more cycles of treatment they recommend and whether you need any more tests.

You will probably want to talk about whether to try again - using the same or a different method - and whether there is anything you can do to boost your chances of conception. You may also want to see a counsellor so that you can talk over your feelings. It's important to remember that, just as in any pregnancy, many embryos are lost early on. Normally these early 'miscarriages' get dismissed as a 'late period'. But when you're having fertility treatment you are only too aware that you have conceived - and miscarried.

### **What went wrong?**

Things usually go wrong at two main points. Treatment may have to be cancelled before the eggs are fertilised and put into the womb. But the most common reason for an IVF treatment not to work is that the embryo does not implant properly in the womb.

#### **Treatment may have to be cancelled if:**

- \* The ovaries don't respond to the drugs used to stimulate the production of the eggs.
- \* The ovaries over-respond (ovarian hyperstimulation) to the drugs used to stimulate the production of the eggs.
- \* No eggs are found during egg collection - that is the follicles (egg sacs) have developed but they are found to be empty.
- \* The collected eggs fail to fertilise so there are no embryos to be put into the womb.
- \* The eggs fail to divide after fertilisation and so cannot be implanted into the womb.

#### **Why embryos fail to develop in the womb**

Most of the time there is no obvious explanation, but failure to develop may be due to one of the following causes:

- \* Poor quality embryos. The egg may not have matured properly in the first place. Alternatively, it may not have divided as it should following fertilisation.
- \* Chromosome problems. Many embryos that look healthy have faulty chromosomes - the structures inside cells that control how it works and what it does. New techniques of preimplantation genetic screening (PGS) allow doctors to pick and choose healthy embryos to be put back.
- \* Poor blood flow to the womb. Even where there's nothing wrong with the quality of the embryos, if circulation to the womb is poor you have less chance of getting pregnant and a greater chance of miscarriage if you do conceive.

#### **Is it okay to try again straightaway?**

Many experts recommend giving it a couple of months to allow your body time to recover and to give you some time off from the stress of treatment.

## **Moving on**

Whether you have had just one try at fertility treatment or several, sooner or later you may be faced with the decision about whether or not to give up.

That time may come when your money runs out or when the specialist tells you that you have little or no chance of conceiving. But even if you are not running short of money and you still have hope that you might yet be able to conceive, you may feel that enough is enough. You may simply want to get on with your life.

If you do decide to call it a day, it is important to feel that it is your choice. Giving up doesn't mean that you are a failure or you haven't done enough. And, unless you want to, it need not mean giving up your hopes of having a child altogether - though it may mean exploring other ways in which you can have children in your life - such as adoption or fostering. Some couples do decide that, having given it their best shot, it's just time to stop. Just remember it is entirely your decision. There are no right or wrong choices, just the choice that's best for you.

## **How to make a complaint**

If you are not happy with your clinic or feel things went wrong because of something they did or did not do, you may want to complain.

The HFEA rules that all licensed clinics must have a proper complaints procedure and a named person to deal with complaints. Minor complaints can often be dealt with on the spot.

If you have a more serious complaint you should contact the complaints manager in writing. They should try to sort things out quickly.

If you're still unhappy and are being treated on the NHS you can ask for an independent review. If this doesn't help, you can write to the Health Service Commissioner or ombudsman. Private clinics have to comply with standards set by the Care Standards Commission. The HFEA can advise you. If you don't feel a complaint has been dealt with to your satisfaction you can write to The Director of Regulation at the HFEA.

If you are having treatment at a clinic and worry that a complaint could affect your relationship with them, you can be assured that if the HFEA deems it necessary to investigate it will only do so with your permission. It will also respect confidentiality, unless there is evidence of serious risk to other patients, embryos, eggs or sperm.

## **What I learned**

### **'It was as if someone had died'**

Sera Jones, 28, and her husband David, 31, were referred for fertility treatment three years ago. Sera had previously taken fertility drugs but failed to get pregnant. Sera says: 'I'd always had problems with my periods and had been told I was not ovulating and that I was unlikely to conceive without fertility drugs. But I thought that it was just a matter of taking a tablet and that would be it.'

'When we started trying seriously for a baby I saw the specialist who suggested a 14-month course of fertility drugs. Unfortunately they made me so ill I had to stop taking them altogether.

'I was then referred to the local fertility unit on the NHS. I had to wait six months for an appointment and that was when it hit home that it wasn't going to be easy. I also learnt that the local health authority wouldn't fund my treatment until I was 32, so we decided we would go ahead and pay privately.

'We had two goes at intrauterine insemination (IUI) with fertility drugs. On both occasions I got pregnant but I lost the pregnancies early on. I felt as if my life was over. It was as if someone had died.

'We then decided to try IVF. I had an allergic reaction to the drugs and then over-responded and felt very ill. But they did manage to retrieve 21 eggs and 19 of those eggs were good. Four failed to fertilise properly but that still left 15.

'The embryologist showed the eggs to us under a microscope - and it was a really special moment seeing the life we had created. I had two eggs implanted and for the first time since starting the treatment I had hope. But a couple of days later the clinic rang to say that all the embryos we were hoping to freeze had fragmented and died. It was a terrible moment. I was totally gutted and unprepared.

'I still had the two inside me and I was petrified they might be dead. We waited a couple more weeks and then had a pregnancy test. Although it was positive the level of hCG (the pregnancy hormone) was low.

'The clinic said to wait and see. I lasted another week and then went back, but as I was driving there I felt cramps in my back like period pains and a week later I lost them.

'I felt desperate. I was prepared to sell the house, anything to have a baby, but Dave said let's wait and pay off the loans. At the follow up appointment the doctor told me I have a chromosome defect in my eggs and that's probably why I don't ovulate naturally.

'I now feel as though we are at a cross roads in our lives. Do we wait until I'm 32 years old and try for NHS treatment or do we go in for adoption?

'You can keep chucking money at the problem and after five goes you may be lucky and get pregnant. But fertility treatment is exhausting both physically and psychologically. For now, we will pay off the loans and then decide whether or not to try again.'

'You need to be completely prepared for the fact that fertility treatment might not work.

'You read all these articles in the papers about couples who have successful IVF. But that's not the whole of the story. It's really important for anyone who is thinking of undertaking fertility treatment to recognise just how completely exhausting the treatment can be - both physically and emotionally.'

## **Other clinics**

This page provides information about clinics which offer specific facilities for infertility treatment

The storage clinics are sperm banks which store sperm but do not offer any form of treatment.

The clinics that have facilities for patients with viral infections are those offering sperm washing, DI/GIFT or storage for people with HIV, Hepatitis or other viral infections.

The satellite and transport clinics are clinics which provide early stages of infertility treatment with the later stages of treatment being carried out at a main hospital or clinic.

This means that you may be able to have some parts of the treatment at a clinic closer to your home.

### **Storage clinics**

Andrology Unit, Hammersmith Hospital (0080)

South Corridor,

Area C/FR30,

Hammersmith Hospital

DuCane Road, London W12 0HS

Tel: 0208 748 4666

Fax: 0208 383 3591

klindsay@hhnt.nhs.uk

Storage of sperm

Storage of sperm within testicular tissue

Bridge Centre Cryoservices (0171)

1 St Thomas Street, London SE1 9RY

[www.thebridgecentre.co.uk](http://www.thebridgecentre.co.uk)

Tel: 0207 403 3363

Fax: 0207 403 8552

[cryoservices@thebridgecentre.co.uk](mailto:cryoservices@thebridgecentre.co.uk)

Storage of sperm

Store sperm from donors

Store sperm from cancer patients

Store sperm from patients

Gloucestershire Hospitals NHS Trust (0151)

Department of Microbiology,

Cheltenham General Hospital

Sandford Road, Cheltenham, Gloucestershire GL53 7AN

Tel: 01242 274 067

Fax: 01242 274 068

Storage of sperm

Store sperm from cancer patients

Louis Hughes (0011)

99 Harley Street, London

W1G 6AQ  
Tel: 020 7935 9004  
Fax: 020 7935 6494  
Storage of sperm  
Store sperm from cancer patients  
Store sperm from vasectomy patients  
Recruit sperm donors

North West Wales Fertility Centre (0130)  
Gwynedd Hospital  
Penrhos Road, Bangor  
Gwynedd LL57 2PW  
Tel: 01248 384 964  
ian.kilbourn@nww-tr.wales.nhs.uk  
Fax: 01248 355 130  
Storage of sperm  
Store sperm from cancer patients

Royal Surrey County Hospital (0159)  
Department of Cytopathology,  
Royal Surrey County Hospital, Egerton Road, Guildford, Surrey GU2 7XX  
Tel: 01483 571 122 ext 4376  
Fax: 01483 453 615  
Storage of sperm

Singleton Hospital (0152)  
Microbiology Department,  
Singleton Hospital  
Sketty Lane, Swansea SA2 8QA  
Tel: 01792 285 055  
lynne.ray@phls.wales.nhs.uk  
Fax: 01792 202 320  
Storage of sperm  
Store sperm from cancer patients

University of Bristol, Division of Obstetrics and Gynaecology (0176)  
St Michael's Hospital, Southwell Street, Bristol BS2 8EG  
Tel: 0117 928 5767  
Fax: 0117 928 5290  
Storage of sperm  
Store sperm from donors  
Store sperm from patients

### **Clinics with facilities for patients with viral infections**

Andrology Unit, Hammersmith Hospital (0080)  
Storage Facilities

Barts and the London Fertility Centre (0094)

IVF/Sperm Washing  
DI/GIFT  
Storage Facilities

BMI Priory Hospital (0026)  
IVF/Sperm Washing

Bourn Hall Clinic (0100)  
IVF/Sperm Washing

Brentwood Fertility Centre (0165)  
IVF/Sperm Washing

The Bridge Centre (0070)  
IVF/Sperm Washing  
DI/GIFT  
Storage Facilities

Bridge Centre Cryoservices (0171)  
Storage Facilities

BUPA Hospital Southampton (0057)  
IVF/Sperm Washing

Burton Hospitals NHS Trust (0184)  
DI/GIFT  
Storage Facilities

CARE Northampton (0016)  
DI/GIFT (Hep+)

CARE Nottingham (0101)  
DI/GIFT

CARE at The Sheffield Fertility Centre (0061)  
DI/GIFT

Centre for Assisted Reproduction, Gateshead (0170)  
DI/GIFT

Centre for Reproductive Medicine and Fertility, Sheffield (0196)  
DI/GIFT

Centre for Reproductive Medicine, Coventry (0013)  
IVF/Sperm Washing

Chelsea & Westminster Hospital (0158)  
IVF/Sperm Washing  
DI/GIFT  
Storage Facilities

Clarendon Wing - Leeds (0052)  
Storage Facilities

Cleveland Gynaecology and Fertility Centre (0056)  
DI/GIFT  
Storage Facilities  
Cromwell IVF and Fertility Centre, Darlington (0075)  
IVF/Sperm Washing

Cromwell IVF and Fertility Centre, London (0074)  
IVF/Sperm Washing

Edinburgh Assisted Conception Unit  
(0201)  
IVF/Sperm Washing

Esperance Private Hospital (0015)  
IVF/Sperm Washing

Essex Fertility Centre (0030)  
IVF/Sperm Washing

Glasgow Nuffield Hospital (0115)  
DI/GIFT

Gloucestershire Hospitals NHS Trust (0151)  
Storage Facilities

Guys Hospital (0102)  
DI/GIFT

The Hammersmith Hospital (0078)  
IVF/Sperm Washing  
DI/GIFT

Hartlepool General Hospital (0031)  
DI/GIFT  
Storage Facilities

Homerton University Hospital (0153)  
IVF/Sperm Washing  
DI/GIFT (Hep+)

Hull IVF Unit (0021)  
IVF/Sperm Washing

Isis Fertility Centre (0188)  
DI/GIFT (Hep+),  
Storage Facilities (Hep+)

The James Cook University Hospital (0055)  
DI/GIFT (Hep+)  
Storage Facilities

Leicester Royal Infirmary (0068)  
DI

Liverpool Women's Hospital (0007)  
IVF/Sperm Washing  
DI/GIFT (Hep+)  
Storage Facilities

London Fertility Centre (0088)  
IVF/Sperm Washing  
DI/GIFT (Hep+)

London Women's Clinic/Hallam  
Medical Centre  
(0105)  
IVF/Sperm Washing  
DI/GIFT (Hep+)  
Storage Facilities (Hep+)

Manchester Fertility Services LTD (0033)  
DI/GIFT  
Storage Facilities

Midland Fertility Services (0008)  
Storage Facilities

Newcastle Fertility Centre at Life  
(0017)  
IVF/Sperm Washing

Oxford Fertility Unit (0035)  
Storage Facilities

Regional Fertility Centre, Belfast (0077)  
IVF/Sperm Washing

Reproductive Medicine Unit, London (0167)  
DI/GIFT  
Storage Facilities

Royal Surrey  
County Hospital (0159)  
Storage Facilities

Shirley Oaks Hospital (0163)

DI/GIFT

Shropshire and Mid-Wales Fertility Centre (0148)  
Storage Facilities

St Jude's Clinic for Fertility & Gynaecology (0198)  
IVF/Sperm Washing  
DI/GIFT  
Storage Facilities

St Mary's Hospital (0067)  
DI/GIFT (Hep+)

Subfertility Unit, James Paget Healthcare NHS Trust (0190)  
Storage Facilities

Sunderland Fertility Centre (0096)  
DI/GIFT

UCH London (0044)  
IVF/Sperm Washing  
DI/GIFT  
Storage Facilities

Watford General Hospital (0002)  
Storage Facilities

Wirral Fertility Centre (0071)  
IVF/Sperm Washing  
DI/GIFT

**Satellite and transport clinics**

**The following are all Satellite Clinics unless otherwise stated**

Airedale General Hospital  
Skipton Road, Steeton, Keighley BD20 6TD  
Clarendon Wing - Leeds (0052)

Altnagelvin Area Hospital  
Glenshane Road, Londonderry BT47 6SB  
Origin Fertility Care (0200)

Arrowe Park Hospital  
Transport Fertility Clinic  
Upton Road, Upton, Wirral CH49 5PE  
Liverpool Women's Hospital (0007)

Assisted Conception Unit, Calderdale Royal Hospital  
Salterhebble, Halifax

HX3 0PW  
Clarendon Wing - Leeds (0052)

Assisted Conception Unit at Queen Mary Hospital  
(Transport)  
Roehampton Lane, London SW15 5CN  
The Bridge Centre (0070)

Assisted Reproductive Unit, Jersey  
Le Quesne Unit,  
General Hospital,  
St Helier, Jersey JE1 3QS  
Bourn Hall Clinic (0100)

Barts and the London Fertility Centre  
(Transport and satellite)  
See p64 for centre contact details (centre 0094)  
The Bridge Centre (0070)

Billinge Hospital  
(Transport)  
Upholland Road,  
Billinge,  
Wigan WN5 7ET  
St Mary's Hospital (0067)

The Beaumont Hospital  
Old Hall Clough  
Lostock, Bolton BL6 4LA  
CARE at the Alexandra Victoria Park (0185)

The Blackheath Hospital  
40-42 Lee Terrace, Blackheath, London  
SE3 9UD  
The Bridge Centre (0070)

Bradford Royal Infirmary  
Duckworth Lane, Bradford BD9 6RU  
Clarendon Wing - Leeds (0052)

BUPA Dunedin Hospital  
BUPA Dunedin Fertility Centre,  
16 Bath Road, Reading, Berkshire RG1 6NB  
Oxford Fertility Unit (0035)

BUPA Hospital Hastings  
The Ridge,  
St Leonards on Sea, Hastings, East Sussex TN37 7RE  
London Women's Clinic/Hallam Medical Centre (0105)

The BUPA Roding Hospital,  
(Transport)  
Roding Lane South, Ilford, Redbridge, Essex IG4 5PZ  
The Bridge Centre (0070)

CARE at The Fitzwilliam Hospital  
Milton Way, South Bretton, Peterborough, PE3 9AQ  
CARE Nottingham (0101)

CARE at The Leicester Nuffield Hospital  
Scraproft Lane,  
Leicester LE5 1HY  
CARE Nottingham (0101)

Chichester Fertility Centre  
Sherburne Hospital  
78 Broyal Road, Chichester,  
West Sussex  
PO19  
London Fertility Centre (0088)

Countess of Chester Hospital Fertility Unit  
(Transport)  
Liverpool Road, Chester CH2 1UL  
Liverpool Women's Hospital (0007)

Create Health  
21 Devonshire Place, London W1G 6HZ  
London Fertility Centre (0088)

Cromwell IVF and Fertility Centre, Tunbridge Wells  
Nuffield Hospital  
Kingswood Road, Tunbridge Wells,  
Kent TN2 4UL  
Cromwell IVF and  
Fertility Centre, London (0074)

Derby City General Hospital  
See p80 for centre contact details (centre 0149)  
CARE Nottingham (0101)

East Surrey Hospital  
Canada Avenue, Redhill,  
Surrey RH1 RN  
The Bridge Centre  
(0070)

Fertility Clinic  
Hexham Hospital  
Corbridge Road, Hexham NE46 1BR

Newcastle Fertility Centre at Life (0017)

The Great Western Hospital  
Marlborough Road  
Swindon SN3 6BB  
Oxford Fertility Unit (0035)

Harley Street (Adrian Lower)  
136 Harley Street,  
London W1G 7JZ  
Isis Fertility Centre  
(0188)

The Harley Street Fertility Clinic,  
c/o BUPA Dunedin Hospital  
72 Berkely Road, Consulting Rooms, Reading, Berkshire  
RG1 6HY  
The Harley Street Fertility Centre (0186)

Hertfordshire  
Fertility Centre  
Art School Yard,  
The Mattings, St Albans  
AL1 3YS  
London Fertility Centre (0088)

Hove Nuffield Hospital  
Fertility Department  
55 New Church Road, Hove, East Sussex  
BN3 4BG  
The Lister Fertility Centre (0006)

The Ipswich Hospital,  
(Transport)  
Heath Road, Ipswich, Suffolk IP4 5PD  
Bourn Hall Clinic (0100)

Maidstone  
Fertility Centre  
Kent Medical Imaging,  
60 Churchill Square,  
King Hill, West Malling, Kent ME19 4DU  
London Fertility Centre (0088)

Mayday Fertility Treatment Centre  
(Transport)  
Gynaecology Clinic  
Mayday Hospital  
Mayday Road, Croydon CR7 7YE

The Bridge Centre (0070)

Mid Sussex  
Fertility Centre  
Horsham Hospital  
Hurst Road, Horsham, West Sussex RH12 2DK  
The Bridge Centre (0070)

Newham General  
Assisted Conception Unit  
13 Glen Road, Plaistow, London E13 8SL  
Essex Fertility Centre (0030)

Nobles Hospital  
Strang, Bradden Douglas, Isle of Man IM4 4RJ  
Clarendon Wing - Leeds (0052)

Norfolk Fertility Centre  
10 Princes Street, Norwich, Norfolk  
NR1 3AE  
Barts and the London Fertility Centre (0094)

North East London Fertility Services  
See p92 for centre contact details (centre 0138)  
London Female And Male Fertility Centre (0143)

Nuffield Hospital  
Derby (formerly East Midlands Nuffield)  
Rykneld Road,  
Littleover, Derby  
Burton Hospitals NHS Trust (0184)

The Portland Hospital Fertility Unit  
3rd Floor,  
The Portland Hospital,  
205-209 Great Portland, Street, London  
W1W 5AH  
CRM London (0199)

Portsmouth Fertility Centre  
Rose Lodge,  
16 Hereford Road, Southsea,  
Hants PO5 2DH  
London Fertility Centre (0088)

Princess Alexandra Hospital  
(Transport)  
Hamstel Road,  
Harlow, Essex  
CM20 1QX

The Bridge Centre (0070)

Princess Royal University Hospital  
Farnborough Common, Orpington,  
Kent BR6 8ND  
BMI Chelsfield Park Assisted Conception Unit (0086)

Queen Mary's Hospital  
(Transport)  
See p95 for centre contact details (centre 0117)  
BMI Chelsfield Park Assisted Conception Unit (0086)

The Rivers Hospital  
High Wich Road, Sawbridgeworth, Hertfordshire,  
CM21 0HH  
The Bridge Centre (0070)

The Rosie Hospital  
See p97 for centre contact details (centre 0051)  
Bourn Hall Clinic (0100)

The Royal Bournemouth Hospital Fertility Department  
Castle Lane East, Bournemouth,  
BH7 7DW  
The Winterbourne Hospital (0133)

Sandringham Private Hospital  
(Transport)  
King's Lynn  
Norfolk  
PE30 4ET  
Bourn Hall Clinic (0100)

Shirley Oaks Hospital  
(Transport)  
See p98 for centre contact details (centre 0163)  
The Bridge Centre (0070)

Shropshire and Mid-Wales Fertility Centre  
See p99 for centre contact details (centre 0148)  
Centre for Reproductive Medicine, Coventry (0013)

St Helier Hospital Assisted Conception Unit  
(Transport)  
Wrythe Lane, Carshalton, Surrey SM5 1AA  
Assisted Conception Unit, King's College Hospital (0109)

St Richards Hospital  
Chichester, West Sussex PO19 4SE  
Esperance Private Hospital (0015)

Subfertility Unit, James Paget Healthcare  
NHS Trust  
(Transport)  
See p101 for centre contact details (centre 0190)  
Bourn Hall Clinic (0100)

Taunton and Somerset Hospital  
(Transport and satellite)  
Reproductive Medicine Department  
Musgrove Park, Taunton, Somerset TA1 5DA  
Centre for Reproductive Medicine, University of Bristol (0024)

Torbay Fertility Clinic  
Torbay Hospital  
Lowes Bridge Road, Torquay TQ2 7AA  
Peninsular Centre for Reproductive Medicine (0005)

Viveka  
(Mr Talha Shawaf)  
27a Queens Terrace, London NW8 6EA  
CRM London (0199)

Whiston Hospital Infertility Clinic  
(Transport)  
Warrington Road, Prescot, Merseyside L35 5DR  
Liverpool Women's Hospital (0007)

Winfield Hospital  
Tewkesbury Road, Longford, Gloucester  
GL2 9WH  
Centre for Reproductive Medicine, University of Bristol (0024)

Wolverhampton Assisted Conception Unit  
Directorate of Obstetrics & Gynaecology  
Maternity Unit,  
New Cross Hospital,  
Wolverhampton WV10 0QP  
Midland Fertility Services (0008)

Woodlands Hospital  
(Transport)  
Rothwell Road, Kettering, Northants NN16 8XE  
Bourn Hall Clinic (0100)

## **Glossary**

### **Abandoned Cycle:**

An IVF treatment cycle cancelled after drug administration has begun but before egg collection.

### **Amniocentesis:**

Withdrawal of amniotic fluid from the amniotic sac containing the foetus, usually between week 14 and 18 of pregnancy. Genetic diseases of the foetus can be revealed by tests on this fluid and the foetal cells it contains.

### **Amnion:**

The inner membrane of the sac in which the embryo develops.

### **Amniotic fluid:**

The fluid filling the cavity between the embryo and the amnion.

### **Assisted hatching:**

Mechanical, laser or chemical breaching of the zona pellucida (outer layer) of the egg.

### **Assisted Reproductive Technologies (ARTs):**

Collective name for all artificial techniques used to assist women to conceive children, including IVF and ICSI.

### **Asthenozoospermia:**

A below normal number of sperm in the male ejaculate.

### **Azoospermia:**

The complete absence of sperm in male ejaculate.

### **Blastocyst:**

An embryo that has developed for five to six days after fertilisation.

### **Blastomere:**

A cell taken (by biopsy) from a blastocyst.

### **Cell:**

The basic unit of all living organisms. Complex organisms such as humans are composed of somatic (body) cells and germ line (reproductive) cells.

### **Cervical mucus:**

Secretions surrounding the cervical canal, which during ovulation, alter in amount and texture to allow sperm penetration.

### **Cervix:**

The narrow passage at the lower end of the uterus (womb), connecting to the vagina.

**Chlamydia:**

A sexually transmitted disease which may remain undetected for a long time. It may damage female and male reproductive systems, causing infertility.

**Chorion:**

The outer membrane tissue of the primitive placenta.

**Chorion villus sampling (CVS):**

Removing a small amount (biopsy) of placental chorionic villi for genetic analysis, usually between week 8 and 12 of pregnancy.

**Chromosome:**

Threadlike structure of DNA with associated proteins located in the cell nucleus, containing genes which carry genetic information.

**Cleavage:**

The division the zygote (cell formed by fertilisation) to produce a blastocyst.

**Clomid:**

A drug used in stimulated DI and IUI cycles.

**Clomiphene:**

A fertility drug used to stimulate the production of follicles.

**Congenital malformations:**

Any malformation seen at birth, either resulting from genetic (inherited) or environmental causes.

**Counselling:**

Discussions aimed at giving emotional support to help patients understand and cope with the consequences of infertility treatment.

**Cryopreservation:**

The storage of gametes or embryos by freezing at low temperatures.

**Cytomegalovirus (CMV):**

A member of the herpes groups of viruses. Most adults and children who catch CMV have no symptoms, although some people may get a fever, sore throat, fatigue and swollen glands. CMV is of most risk to unborn children of women who get CMV for the first time during pregnancy. About 7 to 10% of these babies will have symptoms at birth or will develop disabilities including mental retardation, small head size, hearing loss, and delays in development.

**DeoxyriboNucleicAcid (DNA):**

The major constituent of chromosomes, and the hereditary material of all living organisms.

**Dizygotic:**

Derived from two (di) eggs (zygote). Dizygotic twins form when two separate eggs are fertilised by separate sperm.

Donor:

Person who allows their gametes or embryos to be used for fertility treatment or research purposes. Although the genetic parents of children created using their gametes, donors are not the legal parents when treatment was provided in a UK licensed clinic.

Donor Insemination (DI):

The introduction of donor sperm into the vagina, the cervix or womb itself.

Egg or oocyte: The gamete produced by a woman during her monthly cycle.

Egg collection or egg retrieval:

Collection of eggs from a woman's ovary using an ultrasound guided needle, or a laparoscope (a fiberoptic telescope used for looking into the abdomen) and needle.

Egg donation:

Donation of eggs by a fertile woman for the treatment of others or for research.

Egg sharing:

An arrangement with a clinic to reduce IVF treatment costs, where a woman undergoes a treatment cycle, donates some of her eggs, but uses some herself.

Embryo:

A fertilised egg that has the potential to develop into a foetus.

Embryo biopsy:

The removal and culture of one or two cells from an embryo in vitro prior to genetic screening.

Embryo division:

Splitting of an embryo grown in vitro, at a very early stage, into two or more sections. Each section can be grown separately producing multiple clones (fission cloning) of the single original embryo.

Embryo freezing and embryo storage:

Spare embryos can be frozen (cryopreserved) and stored for future use.

Embryo transfer:

The replacement of embryos back into the female patient.

Endometriosis:

A female condition in which endometrial cells, which normally line the uterus, implant around the outside of the uterus and/or ovaries, causing internal bleeding, pain and reduced fertility.

Endometrium:

The lining of the womb which grows and sheds during a normal menstrual cycle and which supports a foetus if a pregnancy occurs.

Epididymis: A highly convoluted tube about seven metres long connecting the testes to the vas deferens. Sperm moves along the tube and is stored in the lower part until

ejaculation.

Fallopian tube(s):

The pair of tubes which lead from the ovaries to the uterus (womb). After an egg is released from one of the ovaries, it is transported through a Fallopian tube to the uterus. The tubes are the site of fertilisation in natural conception.

Fertilisation:

The penetration of an egg by a sperm resulting in the formation of an embryo. Naturally fertilisation occurs in the woman's body (in vivo) but it can also occur in the laboratory (in vitro).

Fibroid:

A ball of fibrous muscular tissue which may grow in the muscular wall of the uterus. This can cause pain and excessive menstrual bleeding and result in impaired fertility.

Flow cytometry (sperm sorting):

A method of sperm sorting used for sex selection. X and Y chromosome-bearing sperm are stained with different fluorescent dyes, and can then be sorted by colour.

Foetus: The term used for an embryo after the eighth week of development until birth.

Follicle(s):

A small sac in the ovary in which the egg develops.

Follicle-stimulating Hormone (FSH):

A pituitary hormone which stimulates the follicle production by the ovary. Often administered in assisted conception to stimulate production of several follicles (ovulation induction).

Gamete:

The male sperm or female egg which fuse together to form a zygote.

Gamete Intra-fallopian Transfer (GIFT):

A procedure in which eggs are retrieved from a woman, mixed with sperm and immediately replaced into one of the woman's Fallopian tubes, so fertilisation occurs inside the body (in vivo).

Gene:

The unit of inheritance. Everyone inherits two copies of each gene. A dominantly inherited genetic disease occurs when only one copy of the gene is sufficient to produce the disease e.g. Huntington's chorea. A recessively inherited disease only occurs if both copies of the defective gene are present e.g. Tay-Sachs' disease, Sickle cell disease.

Genome:

The basic set of genes in the chromosomes in any cell, organism or species.

Gonadotrophin Releasing Hormone (GnRH):

Hormone released by the hypothalamus which stimulates the pituitary to produce

Luteinising Hormone (LH) and Follicle-stimulating Hormone (FSH).

Gonadotrophins:

Drugs used to stimulate the ovaries similar GnRH.

Gradient sperm sorting methods:

Way of sorting X and Y chromosome containing sperm, for sex selection.

Human Chorionic Gonadotrophin (HCG):

A protein hormone usually secreted by the chorionic villi of the placenta. Its presence in the maternal blood or urine indicates pregnancy.

HFE Act:

The Human Fertilisation and Embryology Act 1990.

HFEA:

Human Fertilisation and Embryology Authority.

Hysterectomy:

The surgical removal of the uterus (womb).

Hysterosalpingogram:

An x-ray of the Fallopian tubes, through which dye is passed, to see if they are obstructed.

Implantation:

Where an embryo embeds itself in the uterus lining, after passage through the Fallopian tubes.

Impotence:

Term for a man's inability to perform sexual intercourse or gain an erection.

Inner cell mass:

A clump of cells growing within and to one side of the blastocyst from which the embryo develops.

Insemination:

The artificial placing of freshly ejaculated or frozen sperm in the female reproductive tract.

Intra-cytoplasmic Sperm Injection (ICSI):

Where a single sperm is directly injected into the egg.

Intra-uterine Insemination (IUI):

Insemination of sperm into the uterus of a woman.

Intra vaginal culture (IVC):

A method of incubating sperm and aspirated oocytes together in a container held in a woman's vagina, allowing in vitro fertilization without using complex laboratory facilities.

In Vitro Fertilisation (IVF):

Human eggs and sperm are mixed together in a laboratory to achieve fertilisation outside the body. The embryos produced may then be transferred into a female patient.

**In vitro:**

Performed outside the body (i.e. in the laboratory).

**In vivo:**

Performed in the body.

**Karyotype:**

The microscopic appearance of a set of chromosomes, including their number, shape and size.

**Laparoscopy:**

Examination of the pelvic or other abdominal organs with a fiberoptic telescope inserted surgically below the navel. During laparoscopy, suction applied to the needle can be used to recover eggs from follicles in the ovary.

**Licence:**

A legal document stipulating terms and conditions for which a centre may carry out a licensable fertility treatment at a specified premise.

**Live birth rate:**

The number of live births achieved from every 100 treatment cycles started.

**Luteinising Hormone (LH):**

Hormone released by the pituitary gland in response to Gonadotrophin Releasing Hormone (GnRH) production. Essential for development of eggs and sperm.

**Menstrual period/Menstruation:**

The monthly bleed which takes place if no pregnancy occurs, caused by the sloughing off of the womb's lining.

**Menstrual cycle:**

A woman's monthly cycle where the egg is released from an ovary, the uterus develops and finally blood and tissue are lost via the vagina if a pregnancy does not occur.

**Microsurgical Epididymal Sperm Aspiration (MESA):**

Extracting relatively mature sperm from the epididymis using a small needle.

**Monozygotic:**

Meaning single (mono) egg (zygote). Monozygotic twins form when one fertilised ovum separates into two identical zygotes.

**Morula:**

The ball of cells forming about 3 - 4 days after the cleavage of the fertilised ovum.

**Multiple birth:**

When a multiple pregnancy actually results in the birth of two or more babies.

Multiple birth rate:

The percentage of all births in which more than one baby was born.

Multiple pregnancy:

A pregnancy where two or more fetuses develop at one time in the uterus (womb).

Neonatal death:

The death of a baby within 28 complete days of delivery.

Nucleus:

The part of a cell which contains the genetic material, DNA.

Oestrogen/Oestradiol:

Female sex hormone produced by the ovary. Levels fluctuate during the menstrual cycle.

Oligozoospermia:

Low sperm count. Less than twenty million sperm per millilitre. Severe if less than five million sperm per millilitre.

Oocyte:

The female gamete (egg).

Ovary:

The female reproductive organ producing oocytes from hormone-stimulated germ cells.

Ovarian Hyperstimulation Syndrome (OHSS):

A serious complication following stimulation of the ovaries with gonadotrophin drugs.

Ovulation:

The release of an egg from a follicle in the ovary.

Ovum:

The female gamete (egg).

Partial Zona Dissection (PZD):

In conjunction with IVF, making a small hole in the egg's gelatinous coating, with a small glass needle, to assist sperm to reach the outer egg membrane.

Percutaneous Epididymal Sperm Aspiration (PESA):

A technique for sperm recovery. A fine needle is passed into either the epididymal region of the testes, or the coiled tubing outside the testicles that store sperm (epididymis), and sperm recovered by gentle suction.

Peritoneal cavity:

The cavity of the abdomen where the Fallopian tubes and the uterus are situated.

Perinatal Mortality Rate:

Perinatal mortality is the total number of foetal deaths and neonatal deaths.

**Pituitary:**

Gland in the brain which produces many hormones including Follicle-stimulating Hormone (FSH) and Luteinising Hormone (LH).

**Polycystic Ovarian Syndrome:**

Condition where many small cysts form on the ovary, resulting in hormonal imbalances which can cause infertility. Treatment involves drugs or surgery.

**Polymerase Chain Reaction:**

A process used in DNA analysis.

**Pregnancy rate:**

The number of pregnancies achieved from every 100 treatment cycles commenced.

**Preimplantation Genetic Diagnosis (PGD):**

The removal of one or two cells from an embryo to test for specific genetic disorders/ characteristics prior to embryo transfer.

**Preimplantation Genetic Screening for Aneuploidy (PGS):**

The removal of one or two cells from an embryo, for testing to ensure the chromosome number is correct (euploidy) and not more or less than usual (aneuploidy).

**Primitive streak:** Thickening in surface of embryos which results in the first clearly recognisable stage in embryonic development.

**Profasi:**

Purified Human Chorionic Gonadotrophin used in assisted conception to mature follicles and cause ovulation to occur.

**Progesterone:**

Hormone produced by both the ovary and corpus luteum after ovulation encouraging the growth of the lining of the womb.

**Prostate Gland:**

A gland which secretes an alkali solution upon ejaculation making up a major part of the ejaculate.

**Selective reduction:**

The procedure in which one or more normal foetuses in a multiple pregnancy resulting from assisted conception are destroyed. The procedure may be hazardous to the remaining foetus(es).

**Seminiferous tubules:**

Very long and convoluted tubules which make up the bulk of the testicles. It is here that sperm is produced.

**Sex selection:**

The sex of an embryo is determined using PGD, in order to avoid sex-linked diseases.

**Sperm:**

Male gametes (or mature male germ cells). Of the millions of sperm present in the ejaculate roughly half carry X chromosomes, and half Y chromosomes. A single sperm is called a spermatozoon.

Sperm sorting:

The separation of sperm carrying X chromosomes from those carrying Y chromosomes prior to fertilisation, in order to determine the sex of the offspring. Used for sex selection.

Spermatid:

An immature sperm cell.

Stem cell:

Reproduce indefinitely and have the capacity to develop (differentiate) into a large number of different cell types.

Stillbirth:

The birth of a dead infant.

Stimulated cycle:

A treatment cycle in which stimulation drugs are used to produce more eggs than usual in the woman's monthly cycle.

Stimulation drugs:

Stimulate a woman's ovaries to produce more eggs than usual in a monthly cycle. Also known as superovulatory drugs.

Subzonal sperm insertion (SUZI):

A technique whereby one or several sperm are injected directly through the zona pellucida (outer layer) of the oocyte.

Superovulation/ stimulation:

The medical stimulation of the ovary with hormones to induce the production of multiple egg-containing follicles in a single menstrual cycle.

Swim up:

Technique for separating sperm, based on their ability to swim through a liquid.

Teratozoospermia:

Poor sperm morphology (shape) which causes infertility.

Testicular Sperm Aspiration (TESA): Sperm extraction technique which inserts a needle into the lower region of the testes to remove a small piece of testicular tissue.

Testicular Sperm Extraction (TESE):

Sperm extraction technique involves exposing testicular tissue through a small cut in the scrotum and the removal of a small piece of testicular tissue.

Testis:

Testicle or male gonad

Transvaginal aspiration:

A method of egg recovery in which a needle is inserted through the top of the vagina into the ovary lining.

Transvaginal oocyte recovery:

The female bladder is emptied and a needle passed through the vagina using ultrasound guidance in order to recover eggs.

Treatment cycle:

One complete licensed treatment. Commences with drug administration or first insemination.

Trisomy:

A syndrome reflecting the presence of three chromosomes of one type instead of the normal number of two. An example is Trisomy 21 resulting in Down's syndrome.

Ultrasound:

High frequency sound waves used to provide images of tissues, organs and other internal bodily structures.

Ultrasound-guided aspiration:

A non-surgical, non-invasive method of egg recovery using ultrasound images to guide the path of the oocyte recovery needle.

Unstimulated cycle:

A natural cycle where no drugs are given to stimulate egg production.

Uterus: The female womb in which the embryo develops.

Varicocele: A varicose vein on the testicles. These may cause testicle overheating and be detrimental to sperm production.

Vas Deferens:

Pair of tubes which connect the epididymis to the urethra and transport sperm during ejaculation.

Welfare of the child:

The social and ethical considerations used when considering the well-being of an individual under the age of 18.

Zona drilling:

The use of chemical to dissolve the gelatinous coating of the egg leaving a hole through which the sperm can enter.

Zona Pellucida:

The transparent membrane or shell surrounding the oocyte (egg).

Zygote: The cell formed as a result of fertilisation.

Zygote Intra-fallopian Transfer (ZIFT):

The transfer of embryos to the Fallopian tubes for purposes of achieving

a pregnancy. Embryos are transferred at the fertilised egg (one cell embryo) stage.

## **Useful contacts**

### **ACeBabes**

ACeBabes offers support on pregnancy following fertility treatment, multiple births, donor conception for donors and recipients, decisions surrounding frozen embryos, trying for siblings or deciding to end treatment and telling children of how they were conceived. Provides a quarterly newsletter, sub-group newssheets, meetings, personal contacts for specific conditions and interactive website.

Tel: 01332 832558

Website: [www.acebabes.co.uk](http://www.acebabes.co.uk)

### **British Infertility Counselling Association (BICA)**

BICA aims to promote high quality, accessible counselling services for people with fertility problems. The Association offers information to patients who are seeking details of counsellors specialising in infertility.

Tel: 0114 263 1448

Website: [www.bica.net](http://www.bica.net)

### **Child Bereavement Trust**

The Charity's philosophy is based on learning from families who have experienced the death of a baby or child or from children who have experienced the death of their mother or father, brother or sister.

Tel: 0845 357 1000

Website: [www.childbereavement.org.uk](http://www.childbereavement.org.uk)

### **Childlessness Overcome Through Surrogacy (COTS)**

The main objective of COTS is to pass on collective experience to surrogates and would-be parents, helping them to understand the implications of surrogacy before they enter into an arrangement and to deal with any problems that may arise during it.

Tel: 0844 414 0181

Website: [www.cots.org.uk](http://www.cots.org.uk)

### **Daisy Network Premature Menopause Support Group**

Daisy Network provides support and information for women who have gone through an early menopause. Telephone contacts are available so members can speak to others who have been through egg donation cycles, both successfully and unsuccessfully. Daisy Network publishes fact sheets and a quarterly newsletter as well as holding an annual open day.

Website: [www.daisynetwork.org.uk](http://www.daisynetwork.org.uk)

### **Donor Conception Network (DC Network)**

DC Network provides contact and support for those who have children conceived, or plan family creation, using donated gametes through donor insemination (DI) and IVF with donor sperm or donated eggs. Also provides support for adult offspring of donor conception.

Tel: 020 8245 4369

Website: [www.dcnetwork.org](http://www.dcnetwork.org)

**Fertility Friends**

Fertility Friends is a meeting place for couples in the UK fertility community. Its aim is to help people through the difficult process of assisted conception by sharing thoughts, experiences and knowledge with others.

Website: [www.fertilityfriends.co.uk](http://www.fertilityfriends.co.uk)

**Infertility Network UK (I N UK)**

A new national charity created by the merger of CHILD and ISSUE in December 2003. I N UK provides emotional support by way of an evening telephone counselling service, putting patients in touch with others, a regional network and local support groups.

Practical support is provided via factsheets, quarterly magazine, medical advisers and publications available to purchase. I N UK have also produced a video for patients entitled 'The Journey Through Infertility' which is available to buy.

Tel: 01424 732361

Website: [www.child.org.uk](http://www.child.org.uk) (new website under construction)

**Miscarriage Association**

The Association provides support and information on the subject of pregnancy loss.

Tel: 01924 200799

Website: [www.miscarriageassociation.org.uk](http://www.miscarriageassociation.org.uk)

**More to Life**

A national support network previously under the umbrella of ISSUE, now of I N UK, dedicated to providing a support service for those people exploring all that life without children has to offer, involuntary childlessness, for those whom fertility treatment is no longer a consideration.

Tel: 01424 732361

**Multiple Births Foundation**

The Multiple Births Foundation provides professional support and information about all aspects of multiple births.

Tel: 0208 383 3519

Website: [www.multiplebirths.org.uk](http://www.multiplebirths.org.uk)

**National Childbirth Trust**

The National Childbirth Trust offers information and support in pregnancy, childbirth and early parenthood, aiming to give every parent the chance to make informed choices.

Tel: 0870 444 8707

Website: [www.nctpregnancyandbabycare.com](http://www.nctpregnancyandbabycare.com)

**National Endometriosis Society**

The National Endometriosis Society provides a helpline, local groups and clubs, a newsletter and other publications, workshops and conferences.

Tel: 0808 808 2227

Website: [www.endo.org.uk](http://www.endo.org.uk)

**National Gamete Donation Trust (NGDT)**

The NGDT was founded as a registered charity in April 1998 order to raise awareness of, and seek ways to alleviate, the national shortage of sperm, egg and embryo donors in the United Kingdom.

Tel: 0161 276 6000  
Website: [www.ngdt.co.uk](http://www.ngdt.co.uk)

**National Institute for Clinical Excellence (NICE)**

NICE is part of the NHS. Its role is to provide patients, health professionals and the public with authoritative, robust and reliable guidance on current "best practice".

Tel: 020 7067 5800  
Website: [www.nice.org.uk](http://www.nice.org.uk)

**Project Group on Assisted Reproduction (PROGAR)**

PROGAR campaigns in two main areas: for the right of people with fertility difficulties to informed choice and quality of care, including counselling and for the right of people to have access to identifying information about their genetic origin.

Tel: 0131 557 0829  
Website: [www.basw.co.uk/progar](http://www.basw.co.uk/progar)

**Stillbirth and Neonatal Death Society (SANDS)**

SANDS provides support for parents and families whose baby is stillborn or dies soon after birth.

Tel: 020 7436 5881  
Website: [www.uk-sands.org](http://www.uk-sands.org)

**Surrogacy UK**

Website and message board produced to support and promote surrogacy within the UK. It was conceived by Elizabeth Stringer and Carol O'Reilly, who have both been involved in the world of surrogacy since 1994. They have a wealth of knowledge of all aspects of surrogacy and between them they have carried 6 surrogate children.

Website: [www.surrogacyuk.org](http://www.surrogacyuk.org)

**Twins and Multiple Births Association (TAMBA)**

TAMBA provides support for families with twins, triplets or more, and for professionals involved with their care. TAMBA has a network of local Twins Clubs and specialist support groups, and provides publications and information packs.

Tel: 0870 770 3305  
Website: [www.tamba.org.uk](http://www.tamba.org.uk)

**UK DonorLink**

A pilot voluntary contact register set up to enable people conceived through donated sperm, and/or eggs, their donors and half-siblings to exchange information and - where desired - to contact each other. The register is specifically for anyone over the age of 18 who was conceived using donated sperm or eggs, or who donated in the UK before the Human Fertilisation and Embryology Act came into force in August 1991.

Website: [www.ukdonorlink.org.uk](http://www.ukdonorlink.org.uk)

**Verity**

Verity is a self-help organisation for women affected by Polycystic Ovary Syndrome (PCOS) and is dedicated to improving the lives of sufferers.

Website: [www.verity-pcos.org.uk](http://www.verity-pcos.org.uk)

## **Acknowledgments**

### **Human Fertilisation and Embryology Authority (HFEA)**

The HFEA is a non-departmental Government body that regulates and inspects all UK clinics providing IVF, donor insemination or the storage of eggs, sperm or embryos. The HFEA also licenses and monitors all human embryo research being conducted in the UK. The HFEA produces a number of resources for patients including information leaflets and a website with a find a clinic search facility.

Human Fertilisation and Embryology Authority  
Paxton House  
30 Artillery Lane  
London E1 7LS  
Tel: 020 7377 5077  
Fax: 020 7377 1871  
E-mail: [admin@hfea.gov.uk](mailto:admin@hfea.gov.uk)  
Website: [www.hfea.gov.uk](http://www.hfea.gov.uk)

### **Dr Foster**

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Every effort has been made to ensure that the information provided in Your Guide to Infertility - the HFEA Directory of Clinics 2003/04 is accurate, but the HFEA cannot guarantee accuracy. The material available in this publication is designed to provide general information only and does not constitute legal or other professional advice. The clinic pages are based on data provided for the HFEA by clinics in October 2003 - no endorsement of any particular clinic is implied.