Sperm donation information

Exceptional healthcare, personally delivered
Introduction

We have written this booklet for patients considering treatment using donor sperm and those wishing to donate sperm.

In it we also set out the alternatives to using donor sperm and explain treatment techniques. It should be read in conjunction with our key services leaflet which provides further information on ethical and legal issues. Also visit our website at www.bristolivftreatment.co.uk for up to date statistics and success rates.

Why some couples need donated sperm

Our specialist staff assess each case individually to decide if a couple are suitable to receive donated sperm. Although this solution may not be appropriate in every case, the most common reasons are:

- Low sperm count
- No sperm production
- Risk of passing on genetic disease
Information for donors

Risks

Subfertility
About 1 in 100 men are sterile and another 78% have sperm counts which are considered to be subnormal and are therefore likely to be subfertile. You will be told the results of your sperm assessment and if you are found to have suboptimal sperm yourself, you will be informed and given appropriate advice and counselling. This does not necessarily mean you will not be able to father a child in the future, it might simply mean that you may have to try for longer. The fertility of your partner may also need to be taken into consideration before we can give you specific advice.

Donor responsibilities
Donors have a responsibility to disclose any genetic or infectious risks they are aware of, which could affect the recipient or the offspring. If they knowingly withhold this information, they could be held accountable for any damage caused. You must therefore answer questions about your medical history honestly; or you can simply withdraw your offer to donate your sperm, to avoid an embarrassing answer.

Withdrawing will not cause us any embarrassment and should not be a cause of embarrassment for you. We recognise that potential donors might withdraw at any time, for a variety of reasons.

All potential donors must sign a form confirming that they are not in a high risk category for HIV and that they have received appropriate counselling about the implications of their donation.

Results of tests
We are obliged to give you the results of all your initial screening tests. Should any of these be abnormal, we can offer counselling here at the Centre or arrange appointments with the appropriate medical staff for example in cases where we identify HIV or genetic factors.
Practical steps towards becoming a donor

After initial screening, the next stage is an analysis of your semen, including its freezing potential, and a series of blood tests and urine samples followed by a medical consultation.

**Sperm freezing process**

As all donor sperm are frozen for quarantine and storage, we need to establish the freezing potential of your sperm. Sperm from some men with normal semen does not survive the process of freezing and thawing. You will be asked to provide three separate semen samples for a sperm count, examination and test freezing. These samples will be discarded after a test thaw.

Semen samples for donation need to be of the highest possible quality. Approximately 3,000 sperm are produced every second in a man’s testes and millions of sperm with above average quality are needed for donor insemination. Some sperm will inevitably die during the freezing (cryopreservation) and thawing process.

**Producing your sample**

The optimum period between your last ejaculation and your semen sample collection is three days, the minimum being two days and the maximum being five days. Longer abstinence periods increase the number but decrease the quality of the sperm.

You will be asked to produce your semen samples in strictest privacy in one of our Centre’s dedicated rooms. These visits will usually take place over a period of about a fortnight. We will arrange mutually convenient appointment times for you.

On the morning of giving a sample, you should shower or bathe and wear clean underpants. This helps prevent any contamination from skin bacteria. Be sure to wash your hands and genitals immediately before your samples are produced. There is a sink for your use in each of our private, dedicated rooms.

It is important to understand that the first portion of your ejaculate contains the best of your sperm. If you miss the pot with this first portion, there is a chance that you might be incorrectly diagnosed as subfertile or infertile when your sample is analysed. Please let us know if this happens.

**Completing the laboratory form**

After producing a sample, please fill out the details on the form provided. This form must be signed by both you and a member of the laboratory staff stating the date of your last ejaculation and whether the whole sample was collected. The pot containing your sample must be labelled clearly with your full name and date of birth, otherwise it will be discarded. The form and the pot will be accepted by a member of the laboratory staff. The pot must be correctly labelled otherwise your sample will be discarded.
**Blood samples**

We will need to take a blood sample to test whether you have antibodies to cytomegalovirus (CMV) in your blood. This infection can be transmitted by sperm and may result in serious birth defects. Unfortunately, if your antibody blood tests show you have an active infection with this virus we will not be able to accept you as a donor.

After you have produced your three initial sperm samples, you will be told the results of the tests and whether your sperm are able to survive freezing and thawing by a member of our laboratory staff. Because of the implications of the results and for reasons of confidentiality we are not able to give you these results by telephone. We also need to confirm your identity, so please bring some photo documentation with you e.g. your passport or driving licence.

If the results of your sperm assessment are normal, we hope you will proceed to the next stage. You will be given an appointment for some further blood samples to be collected, to test for any transmissible disorders, and an appointment with one of our doctors.
Tests

Further blood tests
It is essential to do a number of tests to determine your blood group, to exclude genetic abnormalities and to exclude any possibility of sexually transmitted disease.

You will need to have blood samples taken on four occasions over the time you are donating sperm and whilst they are being stored in quarantine.

Genetic tests
A blood sample will be tested to check you have normal chromosomes. Chromosomes are the tiny strands of DNA which are in all your body cells and carry your unique genetic blueprint. Some people have the correct number of chromosomes and are normal themselves but their chromosomes are slightly rearranged. This is called a translocation. It is possible for people with a translocation to pass on either an insufficient number of chromosomes or an extra chromosome, which could then result in a baby with unbalanced chromosomes and a risk of abnormalities.

You will also be tested to check that you are not a carrier of the cystic fibrosis gene. We will give you a leaflet to explain about these diseases/disorders before you have your genetic blood tests done.

Infections
You will need blood samples taken to check you are not a carrier of hepatitis B, hepatitis C, syphilis, or HIV (the AIDS virus).

HIV risk factors
Very rarely, prospective donors may unknowingly be carriers of the AIDS virus in their bodies. It is possible to transmit this virus in semen. Guidelines from the Department of Health require that people in certain high risk groups should not donate semen (or any other human tissue, including blood or bone marrow) for therapeutic use.
If you answer YES to any of the following questions you must NOT donate sperm:

- Have you ever been an intravenous drug abuser?
- Have you ever had hepatitis?
- Have you ever lived outside Northern Europe, North America, Australia or New Zealand?
- Have you had hospital treatment or sexual contact within Africa or Brazil in the past 15 years?
- Have you ever had sexual contact with a homosexual or bisexual?
- Have you had sexual contact with a prostitute within the past 15 years?
- Have you ever had a sexual partner whom you consider could have answered ‘yes’ to any of the above questions? within Africa or Brazil in the past 15 years?

Urine test

We will ask you to produce two early morning specimens of urine, a week apart, to test for chlamydia. Chlamydia is a bacteria that can infect the female and male reproductive tracts and the male urinary tract. It is possible for a man to have the infection unknowingly as it often does not cause any symptoms. However, it can be passed by infected sperm and cause infertility in women by damaging or blocking their fallopian tubes.

If chlamydia is found in your urine samples, a course of antibiotics will be prescribed for you and your sexual partner. This should clear the infection and a retest shortly afterwards should be negative, making sperm donation possible.

Obligatory sperm quarantine period

All semen is stored frozen in quarantine for six months. This quarantine is strictly observed because it is possible to be infected with the HIV/AIDS virus and not test positive for up to six months. The quarantine period minimises any risk of the recipient contracting HIV.

You will be screened when you first donate and then every three months whilst you are donating. Six months after you have donated your final sample, you will need one last screening test. If all the tests are negative, your semen samples can then be used for treating patients.

It is vital that you inform us if you feel you may have put yourself at risk of HIV/AIDS during the time you are donating.
**Donor registration with the HFEA**

We will also give you information about donor registration, including a form supplied by the Human Fertilisation and Embryology Authority (HFEA). Please read it carefully and complete as much as possible before your appointment with the doctor.

**Donation process**

Once all the procedures we have described here have been completed, and all the results shown to be satisfactory, you will be asked to sign the final consent forms. Only then will your semen samples be collected for storage.

We must stress that donors have the right to withdraw their consent at any stage. We nevertheless ask potential donors to consider all the implications of sperm donation before embarking on the programme.

We start the donation process by making appointments with the laboratory.

Most donors then provide up to 20 samples, depending on the success of the freezing process. To avoid unnecessary blood tests during the time your sperm are being held in quarantine, you will be asked to donate your semen samples over a six to twelve month period. The ideal way is to donate regularly, once or twice a week over a short period. Some may donate for as long as a year, depending on the frequency of attendance and success of freezes.

Because all donated semen is stored frozen in quarantine for six months to avoid any possible infection with HIV, it is very important for you to let us know of any change of address so that we may contact you for your final quarantine blood test six months after you have donated your last sample. If you do not attend for this we will unfortunately be unable to use any donations provided since your last blood test and they will have to be discarded.
Information for Recipients

Options available when there is a sperm problem

To wait and see

If the problem is reduced numbers or quality of sperm - rather than no sperm at all - a further period of waiting may result in pregnancy. Ask for specific advice about your chances of conceiving naturally.

Treatment for sperm problems

Few forms of treatment are available or proven to be effective. In rare cases of hormone deficiency, hormone replacement treatment can be given. A small number of patients may benefit from surgical correction of a varicocele (varicose veins on the testis) or a tight foreskin.

A common-sense attitude towards a healthy lifestyle benefits both male and female fertility. Avoid smoking - this is most important - and excess alcohol. Your weekly consumption of alcohol should be limited to fewer than 21 units, a unit being the equivalent of a half pint of beer or a single spirit measure. Recreational drugs should be avoided completely, particularly cannabis and anabolic (body-building) steroids which block the production of the hormones which control sperm production. You should keep your scrotum and testes cool, avoiding hot baths or constricting underwear and, in general, keep in good physical shape with a healthy mixed diet and a reasonable amount of exercise.

DI - donor insemination

DI is available to couples who want children but discover that, for a variety of reasons, it is not possible, advisable, or appropriate to use the husband’s/partner’s sperm.

It may be because the husband is unlikely ever to father a child because of low or absent sperm function, or that there is a very high risk of the couple producing an abnormal baby. It could also be because the husband and wife’s blood groups are incompatible and sensitisation has occurred.

It is important to rule out any treatable cause of infertility before you consider DI. Certain simple tests will be carried out initially on both partners and further tests may be required during the course of treatment.

DI is now widely practised throughout the world. Our own current results can be found at www.bristolivftreatment.co.uk. It is, however, no easier to make a decision about DI than it is to consider adoption, IVF or remaining childless.

Further information on the following can be found on our Key Services leaflet

IVF - in-vitro fertilisation
ICSI - intracytoplasmic sperm injection
SSR - surgical sperm recovery

A child-free lifestyle
Adoption
Outline of the donor insemination service

When can treatment start?
Treatment can start as soon as all the necessary test results and information are available, after the preliminary consultation and appropriate counselling, and after we have been able to source sperm from a suitable donor. Several general blood tests are needed before DI treatment and some GPs are happy to arrange these.

What tests are required?
It is important to check that the woman is immune to rubella (German measles) before starting treatment. She will also need additional blood samples taken for antibody tests for various infections such as cytomegalovirus (CMV) and chlamydia, as well screening tests for hepatitis and HIV.

It is not essential to match blood groups in both partners, but we try to match the donor’s blood group to the husband’s, as well as ensuring compatibility with the mother’s blood group, to minimise any risks in pregnancy. If you are a blood donor, or have a blood group card, please bring this to your initial appointment.

If you find it difficult to have these tests before your first consultation at the Centre, we can arrange for them to be carried out during your visit at an additional cost. A test to check that the woman’s fallopian tubes are open is not always essential but may be advised if there is any suspicion of tubal damage or if you do not conceive within a reasonable time.

Confidentiality
We take great precautions to ensure confidentiality of donors and recipients. Your family doctor should be informed if you undergo DI and, in due course, your obstetrician when you are successful in conceiving. Special care is taken to prevent other medical staff from finding out about your treatment from antenatal records should you wish to keep it from them.

Same donor for future pregnancies?
Finally, looking ahead, although it is becoming increasingly difficult, it may be possible to provide the same donor for additional future pregnancies.
Some factors to consider

**DI offers a range of benefits to couples**
- The experience of pregnancy from the start to birth, an important preparation for parenthood, is shared by husband and wife
- One parent has a biological and genetic link with the child
- By attending the inseminations the husband can share in the child’s conception
- DI is a relatively simple and usually painless procedure requiring neither surgery nor a stay with us
- Public opinion is showing a far greater acceptance of DI as a means of having a family
- Many couples find they receive support and reassurance from their family and friends if they tell them they are receiving the treatment
- The treatment is confidential. Couples decide for themselves who knows that they are being treated
- The donor does not have any legal, material or emotional claim on the couple or child and vice versa

**The dilemmas of DI**
- Some religious groups are still opposed to donor insemination
- The secrecy that sometimes surrounds a DI conception can perpetuate the notion that it is naturally and ethically wrong. In some cases this can lead to feelings of guilt and fear in relation to the child’s birth and nurture
- The child’s biological father, the donor, is selected by the Centre and not the couple. However, the donor will have been selected carefully, to match the physical characteristics of the husband as closely as possible
- As with adoption, the husband has no hereditary or genetic relationship with the child, and his desire to father a child with his own sperm cannot be fulfilled
- Both husband and wife need to reflect on their attitudes and feelings towards a child conceived by donor semen and its impact on their relationship. A mutual acceptance is very important but cannot always be reached
- The discovery of infertility may have disrupted normal, spontaneous sexual relations and the process of insemination by donor sperm can make any difficulties worse, particularly if conception with donor sperm takes longer than average. This can cause sadness and even feelings of guilt for either or both of the partners
- The right of the child to know about the method of conception is a controversial question which some couples find hard to resolve
- Remarks about family likeness should be expected when the baby arrives. These are perfectly normal, but they can cause embarrassment if parents are not prepared for them
The treatment cycle

Timing
Once a couple has decided to go ahead with DI, treatment is carried out during the woman’s fertile period each month. Ovulation usually takes place 12 to 15 days before her next period.

Donor sperm only last 12 to 24 hours in the woman’s genital tract, much less than fresh sperm, because they have been frozen for storage and then thawed. Accurate timing of insemination is therefore very important. Prediction of exactly the right date for insemination can be difficult and, even then, offers no guarantee of pregnancy, as frozen-thawed sperm are less fertile than fresh sperm.

Cervical Mucus
As the egg follicle in a woman’s ovary reaches maturity, it produces oestrogen which results in mucus secretion from her cervix. At its peak, this fertile mucus is clear and stretchy, very much like the raw white of an egg. The mucus is at its most receptive to sperm before ovulation and acts as a reservoir for sperm, releasing them into the woman’s genital tract. Detection of this mucus secretion is the best indicator of a woman’s fertile time and, with practice, the majority of women can learn how to check this. Some women notice the mucus simply by looking out for it and being aware of what they are looking for. If, however, you have never noticed your own mucus, you may be able to find it by slipping two clean fingers into your vagina each evening, drawing off some of the mucus from the neck of the womb and withdrawing your fingers to inspect it.

Luteinising hormone (LH)
As the follicle within the ovary reaches its peak size, a surge of luteinising hormone (LH) is released to trigger ovulation. This hormone appears in the urine a few hours later and can be detected by ovulation predictor kits. We can supply these, or ovulation predictor kits can be purchased from a chemist or some supermarkets. By the time the LH appears in the urine, however, the optimal time for insemination may have passed, so ovulation predictor kits are of limited value. If your cycle is irregular; if you cannot recognise the change in your mucus, or are unsure about what you are seeing, kits can be useful for one or two cycles, to help you feel more confident about these biological changes.

Body temperature
Some women notice a drop in their basal body temperature before ovulation. However, this is not a particularly reliable sign and many women never see a temperature drop despite normal fertility. This fall is followed by a clear rise in temperature. You might find it interesting to do a temperature chart for two or three cycles for reassurance, although its usefulness is very limited.
Calendar appointments

It may be simpler for you to plan to come in for treatment about 15 or 14 days before your next expected period and hope that it will be the right time for you. When the menstrual cycle is fairly regular this has the advantage of allowing you to plan your trip to the clinic in advance. For people who have difficulty in getting away from work or making the journey to Bristol, this may be the least stressful method.

In summary, there are several methods of timing inseminations. Some methods suit some people better than others. We are happy to treat you by whichever method seems to be easiest for you. If you have any queries regarding this we are always happy to discuss it with you.

Weekends, Bank Holidays and other closures

There are times during the year when we may not be able to offer you treatment. If you visit monthly, you will be informed of other times we are not able to offer treatment. If you are planning a treatment cycle around a holiday time, you will need to check when we are open. Please contact us to ensure you are not disappointed - for example over the Christmas period.

Stimulated cycle DI

In some cases it is advisable to combine DI with a hormone stimulated cycle. This involves shutting down your natural hormones and using follicle stimulating hormone (FSH) injections to develop more than one egg at the time of your insemination.
The insemination procedure

**Intra cervical insemination**
This is very simple. The frozen semen is thawed and loaded into a thin tube which is introduced just inside your cervix, where the semen is injected painlessly. To expose your cervix to view, a speculum is passed into your vagina. The whole procedure is similar to having a cervical smear test.

**Intra uterine insemination**
The frozen semen is thawed and prepared in the laboratory to harvest the best of the sperm and concentrate them into a small volume of culture fluid. The prepared sperm are drawn up into a fine tube which is passed through your cervix into the cavity of your uterus. It usually causes no more discomfort than passing a vaginal speculum, as for a cervical smear test.

**Review of treatment**
Your treatment is reviewed from time to time, usually after 3 cycles of DI, depending on your particular situation. Any other issues affecting your fertility will be discussed at your consultation and the best time to review your treatment will also be discussed with you.

If simple treatment is ineffective after a reasonable trial, we may suggest more advanced treatments, such as IVF using donor sperm.

**Pregnancies from donor sperm**

**Confidentiality and obstetric care**
There are two main issues for recipients: special risks and confidentiality.

A pregnancy achieved through the use of donor sperm is like any other pregnancy. Miscarriage and developmental abnormality may occur, but the risk is no greater than for a normally conceived pregnancy. No special antenatal care is needed unless the mother has a relevant health problem or the pregnancy is multiple.

If you become pregnant we will give you a letter to take to your obstetrician personally. This will explain about the method of conception and request confidentiality.

It may be helpful for your obstetrician to know about your previous fertility treatment so that he or she will be aware of how precious your pregnancy is. It may also avoid unnecessary questioning about future contraception and any needless anxieties about genetic tests you will be offered, such as screening for Downs syndrome.

When you first book for the delivery of your baby, either through your GP’s surgery or at the hospital antenatal clinic, a midwife will take a very detailed history about you and your partner and enter it on a computer. Many health professionals who care for you, and later your baby, will have access to this computerised record and the information could be transferred to your baby’s
records. If you have anxieties about the confidentiality of your computer records, you may prefer not to tell the midwife at this time about the use of donor sperm.

A further consideration is whether and when to inform your child about his or her origins. Your doctor and counsellor will be able to help you with this.

**Further pregnancies by DI**
You may wish to consider further pregnancies by DI in the future. Some couples like to use the same donor. Additional children born to the same parents do not affect the legal limit of children born from each donor.

Whilst we will try to facilitate such requests, it is becoming increasingly difficult to achieve due to donor shortage. If you are interested, we suggest you ask for more information once you have delivered your baby. There are restrictions on the further use of donor sperm. There is a statutory storage period of 10 years, after which it must be destroyed. The donor may withdraw his consent, or there may be medical reasons why it might be considered inadvisable to continue to use his sperm. The sperm storage bank could fail or the HFEA could withdraw our licence. For all these reasons, we could not guarantee to provide full siblings although it would be our wish to do so.

**Your well-being**
It is important to look after yourself during treatment. Smoking has an adverse effect on your fertility, general health and the health of your baby. It is best avoided. Being very overweight or underweight can also affect your fertility. We do advise you to take folic acid supplements before pregnancy. This minimises the risk of having a baby with spina bifida. In general, try to maintain a healthy lifestyle.

**Risks**
The sperm bank is a store of sperm samples deep-frozen in liquid nitrogen. Samples are only released for treatment after a quarantine period, to allow a time interval before the donor has repeat blood tests to exclude Hepatitis and HIV (AIDS). Although we could never offer an absolute guarantee, this means you are very well protected from the risk of these infections.

Many couples ask if there is a risk of developing any sexually transmitted infection following donor insemination. The chance of this is extremely small, because all donors are carefully screened and each semen sample is checked before use. In the highly unlikely event of an infection occurring, we would advise you about treatment with appropriate antibiotics.

**Success rates**
Our most recent results for different assisted conception treatments are provided via our website. The results speak for themselves.

There has been a steady improvement in treatment methods and our results during the last few years. There are now very few couples who cannot be offered treatment which offers a realistic hope of success.
How to contact us:

Bristol Centre for Reproductive Medicine
Southmead Hospital Bristol
Westbury-on-Trym, BS10 5NB

0117 414 6888

www.bristolivftreatment.co.uk