

FEMALE FERTILITY

FACTSHEET





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Introduction

To achieve pregnancy (conceive), an egg needs to be produced and fertilised by a sperm. For this to happen, one of the two fallopian tubes needs to be open to let the egg pass from the ovary into the tube where it needs to meet a sperm. Fertilisation usually happens in the tube and then the fertilised egg moves into the womb (uterus) and implants into the wall of the uterus. Sperm get to the fallopian tube by sexual intercourse or by being placed into the vagina (vaginal insemination) or through the cervix (intrauterine insemination).

After a spinal cord injury, you may initially find difficulties in having sex but should be able to get advice from the rehabilitation team.

Getting pregnant naturally will also depend on whether your partner is able to have penetrative sex. If you can't have penetrative sex, or your partner can't, it is still possible to get pregnant with help from a fertility clinic – see below.

Fertility declines for women with age – reducing after the age of 35 and more rapidly after 40 years old. This needs to be factored into decisions about when to try to get pregnant, particularly if it is around the time of a spinal cord injury (SCI). It is important to get yourself as well as possible first and have the necessary rehabilitation. Talking to other women with SCI, and who have decided to have children, may be helpful. Contacts can be made via the Spinal Injuries Association (SIA): www.spinal.co.uk

Weight, usually calculated as body mass index (BMI), is also important but can be difficult to regulate after a spinal cord injury. Both being underweight and overweight can reduce fertility.

This fertility advice is written for a woman with a male partner. If your partner is female, follow the pre-pregnancy advice but you will need to seek help from a fertility unit for sperm donation.

Pre-pregnancy preparation

Before you start trying to get pregnant, it is advisable to:

- Make sure your cervical smear is up-to-date
- Stop smoking, drinking alcohol or using recreational drugs
- Start taking 0.4mg of folic acid every day. This is to reduce the risk of neural tube defects, spina bifida
- Start taking Vitamin D supplements, 10mcg (400IU) every day
- Check your BMI – aim for somewhere between 19 and up to 30
- Speak to your SCI team regarding pregnancy, management of your bladder and bowel, general medical problems.
- Check any medication you take is compatible with pregnancy (ask your GP or outpatient team)

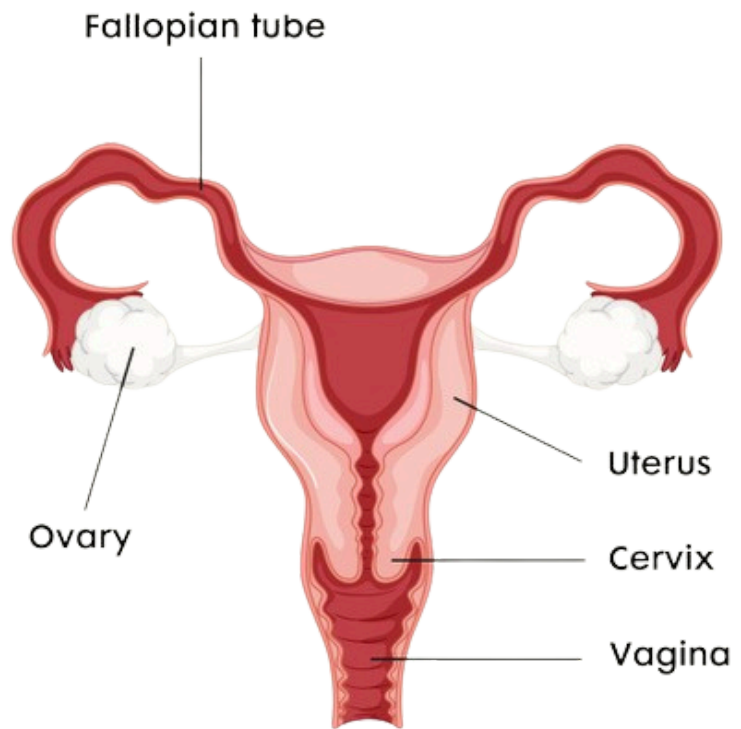
There is a very useful pre-pregnancy website at:

www.tommys.org/pregnancy-information/planning-pregnancy/planning-for-pregnancy-tool



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Any couple may not conceive immediately after they stop using contraception and it may take at least a year of regular intercourse before conceiving, even if there are no problems identified. Provided you are able to have regular penetrative intercourse (2 to 3 times a week) with ejaculation into the vagina, your periods are regular (every 24–35 days) and you are under 35 years of age, then it is usually appropriate to wait for 6 months before seeking help from your GP. If there are problems with any of these aspects, then consult your GP or spinal rehabilitation team much sooner.



Ovulation (making eggs)

The egg is usually released around day 14 of a 28 day cycle and the most likely time to conceive is one day either side of this. Cycles are calculated by counting the first day of your period as day 1. Ovulation is probably occurring for women with cycle lengths between 24 – 35 days and happens roughly day of cycle length minus 14 (ie in a 28 day cycle, $28 - 14 = \text{day } 14$, in a 35 day cycle, $35 - 14 = \text{day } 21$). It is advisable to have sex every 2 – 3 days from the end of your period to at least 7 days before it is likely to begin, though more frequently is fine.

Ways to detect ovulation

- Buy an ovulation predictor kit from the chemist and test your urine according to the instructions
- Organise a blood test via your GP for a mid luteal progesterone, usually day 21 of a 28 day cycle (cycle length minus 7)

There are many 'phone apps available to buy to track your cycle and help identify when you ovulate and when to time sex, but this may lead to an increase in anxiety and possibly reduce your enjoyment of sex (orgasm helps to propel the sperm to meet the egg). General advice is that if you are able to have regular sex, then to not use an app initially, but they can be very helpful for women who cannot have sex very often or who need to use insemination.

Semen analysis

It is important for your partner to have a sperm test, to check whether sufficient motile sperm are present.

A normal count (WHO reference range 2021) would be as follows:

Seminal fluid volume:	More than 1.4 mls
Sperm concentration:	More than 16 million/ml
Sperm motility:	More than 30% rapid progression
Sperm morphology:	More than 4% normal forms

Don't worry too much if some of the results are a little outside these normal ranges, keep trying as pregnancy can still occur but do seek help if the count is low or few of the sperm are moving rapidly.



Checking the fallopian tubes

Problems with the fallopian tubes not being open is a less common cause of infertility but increases if you have a history of pelvic inflammatory disease, sexually transmitted infections (STI), endometriosis or pelvic surgery.

Tubal patency can be checked by either a hysterosalpingogram (HSG) or a hysterosalpingo – contrast – sonography (HyCoSy). These both involve having a vaginal examination and so need to be performed where you can access the examination couch, have your legs supported and have the medications available if you suffer from autonomic dysreflexia.

- i)** HyCoSy is when you have a vaginal scan (when the uterus and ovaries can also be examined) and a thin tube is passed through the cervix into the womb and a fluid is then passed through which allows the sonographer to assess the lining of the womb and also whether the fluid passes through the fallopian tubes into the pelvis.
- ii)** HSG is when a small tube is passed into the neck of the womb and radio-opaque dye is inserted and seen, on an Xray screen, whether it passes through the fallopian tubes.

Which procedure you are offered depends on what staffing is available at the unit – the benefit of the HyCoSy is that a pelvic ultrasound examination is performed at the same time and it reduces the use of XRays. If you are offered an HSG, you should also have a pelvic ultrasound at a different time to look at the uterus and for ovarian cysts.

A laparoscopy and dye is a further investigation which checks the fallopian tubes. This is an operation, needing an anaesthetic and so is kept in reserve for when there may be problems in the pelvis with ovarian cysts, endometriosis or scar tissue around the fallopian tubes.

Ovulation induction (help to make eggs)

The most common causes of not making eggs regularly are polycystic ovarian syndrome (PCOS), being under or overweight and being older (over 40 years).

The first line of treatment is to try to bring your body mass index (BMI) into the normal range, so this means increasing weight if your BMI is less than 19 and reducing weight if your BMI is above 30. Both of these can be difficult to do and, as well as needing your commitment and hard work, you may need to get help from a dietician.

Drugs used to help induce ovulation include clomiphene citrate, letrozole, metformin (for PCOS) and on occasions gonadotrophins and cabergoline.

Intravaginal insemination

This involves placing the fluid of the ejaculate into the vagina and it can be used when a couple are unable to have penetrative intercourse or when the man needs to use a vibrator (or other gadget) to achieve an ejaculate. It is simple to organise on a home basis, with appropriate guidance from clinic staff. It involves:

- The woman testing for time of ovulation using ovulation predictor kits. When a positive response is seen then:
- The man gets an ejaculate into a specimen pot – either by masturbation or using a vibrator etc.
- The fluid is drawn up into a 5 ml syringe
- The woman lies down and has the ejaculate fluid placed into the vagina from the syringe. Probably best to stay lying down after for 15 mins.
- The process can be repeated the next day if it is possible for the man to produce a further specimen and you can both get to a clinic.

If you feel confident, intravaginal insemination can be done at home after being taught the above steps.



Assisted conception

These are treatments where you can get help to conceive. As birth rate varies by age, the success rates are given for women aged 18 to 34, then 40 to 42, after the title of the treatments below.

As you will see, success rates are much better when women are younger and the rates given below are success rates for each cycle/treatment – if you have more than one cycle, you are more likely to have a baby. The birth rate after assisted conception is lower than the pregnancy rate as women may have problems such as miscarriage and ectopic pregnancies once pregnant.

Intrauterine insemination (IUI) (15 %, 6%):

A preparation of the best moving sperm is placed into the uterus with a fine tube at the time of ovulation. This tends to be used if there is a slightly reduced sperm count or if sexual intercourse cannot be achieved or if using donor sperm.

Donor sperm insemination (DI) (17%, 6%):

This is when sperm from a donor (usually anonymous) are used to fertilise the egg – either by IUI, IVF or ICSI. It is used when there is a significant problem with your partner not being able to make sperm or you do not have a male partner.

In vitro fertilisation (IVF) (37%, 11%):

The most frequently used form of assisted conception when a couple is not getting pregnant for various reasons including not making eggs, low sperm counts, problems with intercourse and 'unexplained' reasons. The woman uses egg stimulating drugs over 2 weeks, the eggs are collected by a vaginal scan technique, incubated in the test tube with the sperm then 1 or very occasionally 2 embryos are transferred into the womb, with a fine tube, a few days later.

Egg donation (around 50%, depends on age of egg donor):

Eggs are taken from a donor (usually anonymous) and used with either your partner's sperm or a donor in an IVF/ICSI technique. This is used when women cannot be helped to make their own eggs, or these are not fertilising – often used for older women.

Intracytoplasmic sperm injection (ICSI) (34%, 13%):

Used for low sperm counts. Similar procedure to IVF but a sperm is injected directly into the egg after collection.

Egg freezing (around 18%, depends on age when eggs frozen):

This technique is used when a woman needs to postpone pregnancy, or does not have a partner, but wants to keep the option of future fertility open. The woman has ovarian stimulation, the eggs are collected and frozen for later use. The eggs can now be stored for up to 55 years but you have to keep repeating your permission every 10 years. The eggs are used when the woman decides to get pregnant and will need to use IVF/ICSI.



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IVF funding

Access to NHS funded assisted conception techniques varies around the country and you would need to investigate about local funding and your rights of how to appeal. Criteria for funding usually includes that you should not be a smoker, have a normal BMI and tends to give a specific age range.

If you are eligible for a compensation claim after your SCI, and you are in an age range when you may want to consider having a baby in the future, do ask your compensation lawyer to include the costs of fertility/IVF treatments into the claim

Success rates

The best place to look up current success rates is by using the Human Fertilisation and Embryo Authority's (HFEA) website and their interactive dashboard.

HFEA: <https://www.hfea.gov.uk>

Choosing an assisted conception unit

- Ask your GP, spinal injuries centre, friends etc.
- If there is NHS funding – it will be at specific units.
- Look up the HFEA's information, consider cost, success rates and proximity.
- Find a unit which has the necessary facilities for your needs ie: access, height adjusting beds, hoist, knowledge of how to deal with autonomic dysreflexia, staff who are considerate and prepared to listen to you as an expert in SCI.

References:

NICE guidance fertility problems: assessment and treatment: <https://www.nice.org.uk/guidance/cg156/resources/fertility-problems-assessment-and-treatment-pdf-35109634660549> There will be an updated version of this guideline soon, planned publication March 2026.

Fertility Network UK: <https://fertilitynetworkuk.org/learn-about-fertility/fertility-factsheets/>

The Fertility Alliance: <https://thefertilityalliance.org.uk/>

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About SIA

Spinal Injuries Association (SIA) is the UK's leading charity for everyone affected by spinal cord injury. We provide free, specialist support to help you navigate the mental and physical challenges you may face now and throughout your life.

Our nationwide team can connect you with our trusted network of experts

and partners, offering guidance on legal matters, care, housing, finance, mental health and more. You can reach our support line on

0800 980 0501.

We are the voice of spinal cord injured people, through our expertise and we can connect you to the services and organisations you need

through our network for all.

Join the SIA community for free at www.spinal.co.uk

Tell us what you think If you have any comments about our publications, you can email academy@spinal.co.uk

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