

Retrograde ejaculation - Patient Information

What is retrograde ejaculation?

Typically, when a male reaches orgasm, semen is propelled forward from the prostate, into the tube inside the penis (urethra) and out of the body through the head of the penis. Retrograde ejaculation is caused when semen, rather than travelling into the urethra, passes into the bladder instead. This is because the muscle at the opening of the bladder does not tighten properly to prevent semen from entering the bladder.

The main symptoms of retrograde ejaculation include:

- feeling the sensation of orgasm, but having some, or no semen at all leave the body through the penis.
- producing cloudy urine (because of the semen in it) when you first go to the toilet after having sex

The condition does not pose a danger to health but can affect the ability to father a child naturally.

What are the possible causes of retrograde ejaculation?

Retrograde ejaculation is caused by damage to the nerves or muscles that surround the neck of the bladder (the point where the urethra connects to the bladder). Several conditions can cause the condition, including;

- Surgery – for example, bladder neck surgery, retroperitoneal lymph node dissection surgery for testicular cancer or prostate surgery
- A side effect of antidepressant, prostate enlargement, high blood pressure and antipsychotic medication.
- Sufferers of diabetes or multiple sclerosis. This can cause neuropathy of the bladder sphincter
- Patients who have undergone prostate or bladder surgery
- Patients who have suffered a spinal cord injury
- Change in the physical anatomy of the patient after surgeries such as transurethral surgery where sections of the prostate are removed due to it being enlarged or diseased, and surgery to the bladder neck itself.

I think I may have retrograde ejaculation, is there any treatment available for me?

Retrograde ejaculation typically doesn't require treatment unless it interferes with your fertility. If this is the case, then the type of treatment is dependent upon what is causing your retrograde ejaculation to occur.

Treatment is normally through either drug therapy – for example, the drugs Pseudoephedrine or Imipramine can improve muscle tone at the bladder entrance. Or, changing or stopping a certain type of medication – sometimes, a side effect of taking a certain type of medication can be retrograde ejaculation. It may be possible to switch to a different drug that does not cause

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the problem or, once the course of medication ends, retrograde ejaculation may decrease or stop altogether. However, if the retrograde ejaculation has been caused by significant muscle or nerve damage, treatment may not be possible. In this case, it is likely that you will need assisted reproductive technology to father a child.

If you are concerned about potentially having retrograde ejaculation and the effect it may be having on your fertility, make an appointment to see your GP, who will be able to appropriately advise you. Your GP can then refer you to a fertility centre which specialise in patients impacted with potential infertility issues.

What will happen once I've been referred to a fertility centre?

Firstly, you will have a consultation with a Reproductive Specialist who will carry out fertility investigations. In order for the specialist to confirm that you have retrograde ejaculation, they will arrange for you to provide a urine specimen that is obtained shortly after you masturbate to climax (sensation of orgasm).

On the day of your appointment to provide a urine specimen, you will be asked to empty your bladder, masturbate to climax, and then provide a urine sample. The laboratory will then process the urine for the presence of sperm. The centre has private, specially designed, sound-proof production rooms available in which you produce your specimen.

In cases of retrograde ejaculation, the specimen will contain a high level of sperm. If your specimen doesn't contain sperm, there may be an issue with semen production, and the specialist will undergo further testing with you.

How will the centre help me and my partner to conceive?

Firstly, an application will be made to the NHS clinical commissioning group you fall under as to whether you and your partner meet the eligibility criteria they have set for NHS funding. If you do not meet these criteria, fertility treatment will have to be self-funded.

Normally, before fertility treatment commences, patients with retrograde ejaculation will have their urine specimen processed, in which the sperm will be isolated and frozen in a process known as cryopreservation.

Frozen sperm is typically used instead of fresh for fertility treatment because retrograde ejaculation can often be varied in how much sperm is in urine from specimen to specimen. The centre will want to make sure they have sperm to use when fertility treatment starts with your partner.

The frozen sperm can then be thawed when required and used in procedures such as intra-uterine insemination (IUI), *in vitro* fertilisation (IVF) or intracytoplasmic sperm injection (ICSI).

For more information on retrograde ejaculation, sperm freezing and the treatment types your sperm can be used to help you and your partner become pregnant, please ask a member of staff or contact our laboratory on 0151 702 4214 or email lwft.andrology@nhs.net, who can supply you these additional information leaflets and answer any queries you may have.

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How successful is the use of frozen sperm isolated from urine specimens?

It is clear that success does depend on the quality of the sperm that is isolated and stored. Frozen samples with reduced numbers of sperm or high rates of sperm abnormality are less likely to be successful in treatment. There is always a small reduction in sperm quality due to the freeze-thaw process.

Additionally, the urine in which the sperm is isolated from is not a typical environment for sperm. Urine has a different acidity and osmolarity to semen, which usually surrounds the sperm. This different acidity and osmolarity is toxic to sperm if kept in this environment for long periods of time. However, the toxic effects can be minimised with the patient drinking lots of water prior to producing his urine specimen. This will decrease the acidity and thus provide an environment to the sperm that is similar to that of semen. The laboratory will then immediately process the sample and move the isolated sperm into sperm friendly media to minimise toxic exposure.

The Hewitt Fertility Centre will ensure that enough of your isolated sperm will be frozen for future fertility treatment/s. This may involve attending the centre up to two further times. We will know whether further appointments will be needed after you have produced your first sample and will arrange this with you if further appointments are required. If your sample is unsuitable for storage, you can discuss your options and next steps with your clinician. You are also welcome to use our counselling service if you wish to do so.

Safety & Quality

We promise to look after your sperm as carefully as possible but we cannot be held responsible for its safety or the risk of the loss of sperm due to equipment failure. In addition we cannot guarantee your sperm will survive the freeze-thaw process or that a successful pregnancy will result from its use.

The Lewis-Jones Andrology Department at the Hewitt Fertility Centre has provided a dedicated Andrology service for over 30 years. We are attached to the Hewitt Fertility Centre HFEA licenced centre 0007) and can provide all fertility treatments potentially required in the future. We also have a centre at Knutsford (Centre number 0344) where the same care can be provided if more convenient and appropriate.

This leaflet can be made available in different formats on request. If you would like to make any suggestions or comments about the content of this leaflet, then please contact the Patient Experience Team on 0151 702 4353 or by email at pals@lwh.nhs.uk

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