Diagnostic semen analysis
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The GP semen analysis referral form is attached at the bottom of this page.

You have been asked to produce a sample of your semen for testing at the Andrology Laboratory at Cambridge IVF. This may be a single test or as part of a series of tests being performed on you and your partner to assess your chances of achieving a pregnancy as a couple.

Semen analysis is the examination of your semen using a microscope to determine how many sperm are present, if they are moving correctly and if they look healthy. The results of the analysis help us to determine whether or not a ‘male factor’ plays a part in the reason why you have not conceived naturally. It’s important to realise that although we get a lot of useful information from one semen sample, the quality of the sample can vary markedly from one sample to the next in any man. It’s likely that you will be asked to provide more than one semen sample as part of your fertility investigations.

1. What do I have to do?
2. How do I collect the sample?
3. How will my sample be tested?
4. How will I get my results?
5. I have been asked to repeat my test – what is going on?
6. I have had a poor result, what happens now?
7. I have been diagnosed with Retrograde Ejaculation (RE).
8. Research activities – what you can do to help?
9. Our commitment to quality in our service.
10. Queries or complaints

What do I have to do?

Firstly, you need to ensure that your doctor has provided you with a completed semen analysis referral form indicating a request for a diagnostic semen analysis. You can either produce your sample at Cambridge IVF or, if you live within 30 minutes travel time you have the option to produce the sample at home. We will provide you with a suitable sterile container upon arrival or you can collect your container from us prior to your appointment if you wish to produce at home.

Secondly, you need to telephone the Andrology Service on 01223 349017 and arrange an appointment time to produce your sample for analysis. Please note it is likely there will be a wait of up to two weeks before we can see you.

In order to get the best sample from you, we require you to abstain from any sexual activity (including masturbation) for between two and five days prior to your appointment date.

At Cambridge IVF, we have quiet and discrete rooms available for you in which you can produce your sample.

Appointments are available for semen analysis between the hours of 09:00 and 15:00 Monday, Wednesday and Friday and 08:00 – 18:30 Tuesday and Thursday.

The clinic is not open on Bank Holidays.

Cambridge IVF does not operate a sample ‘drop in service’ as semen analysis is a time critical test and specimens must be produced and analysed at appropriate and pre-arranged times. If you arrive more than 30 minutes after your allocated appointment time or do not have your referral form with you, we will be unable to perform your test and you may have to re-book the appointment. You should therefore give yourself plenty of time to arrive, especially if travelling by car. We do have ample free parking onsite but the roads surrounding Cambridge can sometimes be unexpectedly congested. If you cannot keep your appointment time for any reason please call and we will re-book.
How do I collect the sample?

Samples are either produced on site at Cambridge IVF in one of our dedicated sample rooms or at home. Although our rooms are well proportioned we suggest that you produce your sample on your own; we do not recommend your partner accompanies you into the room although they are very welcome to wait for you in our reception area.

- Firstly ensure that you have booked an appointment time
- Ensure that you have been provided with a completed semen analysis request form from your doctor and they have indicated the test required is a diagnostic semen analysis. Your form should have your name, date of birth, NHS number, partners name and partner’s date of birth (if applicable)
- Abstain from any sexual activity for two to five days
- At your allocated appointment time a member of our laboratory team will greet you from the waiting area, check your referral form is completed correctly and provide you with an appropriately labelled sample container (or collect the sample from you if you produced the sample at home). If you are producing the sample at Cambridge IVF, we will show you to the private room in which you can produce your sample
- Thoroughly wash, rinse and dry your penis, testicles and hands before you produce the sample
- If producing the sample at home; masturbate and collect the sample into the container making sure you tightly cap it and place it in the self sealing bag provided. Immediately transport the sample to Cambridge IVF keeping it close to the body for example in a jacket pocket during transportation
- If producing at Cambridge IVF, masturbate and collect the sample into the container making sure you tightly cap it. Complete the bottom part of the referral form and inform us if any of the sample is missed during production. Most of the sperm in the ejaculate are contained in the first part. If you do miss some of the sample we may ask you to repeat the test. This information provides us with useful details to enable laboratory staff to interpret your result.
- Put your sample and completed referral form into the hatch. Close the hatch and press the switch to let the lab team know your sample is ready for collection
- Please note that masturbation is the only recommended method for collecting the sample ‘cleanly’ for analysis. The withdrawal method (vaginal, oral or anal) is not recommended as it is likely that some of the sample will be lost and may in any case be contaminated. Ordinary condoms cannot be used as these contain a spermicide which will kill any sperm in the ejaculate.

If you have any problems producing your sample, please give us a call, we will happily arrange another appointment for you.

How will my sample be tested?

We look at the important factors which when combined together will give us an indication of your ability to conceive:

Sperm volume
We record the actual volume in millilitres of the semen sample provided. We do not expect you to fill the container; we would expect an ejaculate to be around 2ml but some men will produce more or less semen and still have a completely normal semen analysis.

**Sperm concentration (sperm count)**

Reported as millions per millilitre of semen. We use a microscope and a special counting chamber to count the number of sperm in the sample.

**Sperm motility**

Sperm are graded on their ability to swim in a progressive manner. The sperm are grouped into four categories with the strongest swimmers (grade ‘a’) being the most fertile.

**Sperm morphology**

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**Seminal pH (measure of acidity/alkalinity)**

The pH of the sample should be greater than 7.2.

**Assessment of non-sperm cells in semen sample**

We check for the presence of non-sperm cells such as red and white blood cells in your sample and will report if these are present in numbers which are clinically significant and could indicate further investigations are required.

**Antisperm antibodies (if requested)**

Anti-sperm antibodies cause sperm to stick together and prevent them from swimming properly. They are seen in approximately 5% of cases and may be indicated by serious testicular sports injuries or vasectomy reversal operations.

In addition we may have been asked to perform a sperm preparation test (otherwise known as a ‘test wash’). This involves a washing procedure aimed at harvesting the best quality sperm from your sample for use in assisted conception treatment. This test can only be requested by a fertility specialist as indicated on the referral form. If you have been asked to have this test performed please inform us when you telephone to make your appointment.

**How will I get my results?**

A written report will be sent to your referring doctor. Please allow 10 working days before calling your surgery/clinic for your results. For reasons of confidentiality we will never give out results over the telephone so please understand the good reasons why any such request will be politely declined.

**I have been asked to repeat my test - what is going on?**
It is not unusual for us to request a repeat analysis. This will most likely be because more than one of the factors listed above is found to be borderline or below the normal range or it could be because your sample was incomplete. Although this may be shocking news it’s important you realise that abnormalities within your sample can occur for a number of reasons, eg previous illness, stress or medication. With this in mind we use the results of the second analysis to confirm if the findings of the first test were accurate or due to other factors.

I have had a poor result, what happens now?

Discovering that you have an undiagnosed fertility issue will no doubt come as a great shock to you. It is important to realise that this news in the vast majority of cases does not mean you will not be able to father a child. Assisted conception procedures have improved dramatically in recent years and we at Cambridge IVF are well placed to offer you both initial support and on-going assisted conception treatment with your partner following the diagnosis. We work with qualified independent counsellors who are available to you and have experience of working with men in similar situations. Please contact us on 01223 349010 if you feel you would like an appointment to speak with our counsellor.

I have been diagnosed with Retrograde Ejaculation (RE) – what is that?

Some sperm tests show a very low volume of semen being produced along with a reduced pH. In such cases we suspect that a rare problem known as retrograde ejaculation (RE) may be occurring. RE results in the semen being ejaculated into the bladder due to a weakness in the muscles surrounding the neck of the bladder which normally close during ejaculation propelling the sperm forwards. RE is more common in men with spinal injuries or diabetes. If your referring clinician already suspects you may have the condition this will be indicated to you and on your referral form and you should mention this to us when you telephone to book your appointment.

Checking for RE is a straightforward procedure. Before you attend for your appointment you should:

- The evening before your appointment mix one teaspoon of sodium bicarbonate powder in a half pint of water or juice, stir until it dissolves and drink.
- Eat and drink normally at breakfast.
- Prepare a second sodium bicarbonate solution as described above and drink this one hour before your appointment time.
- Attend Cambridge IVF and produce your sample for analysis (note RE samples must always be produced onsite; it is not possible to arrange such samples for production at home).

More detailed information will be provided for you when you attend for your semen analysis.

Research activities – what you can do to help?

It is our common practice to dispose of the part of your sample we do not use during the analysis by incineration. There are often opportunities for us to use your sample for research activities to allow us to further develop the services we can offer you and contribute to the global evidence base.
Should we have any research projects ongoing at the time you attend Cambridge IVF we may give you some information explaining the research we are doing and ask for your consent to use the part of your sample we would otherwise discard after your semen analysis for research purposes. No viable samples would ever be stored or used for the treatment of other people and all research samples are coded and anonymised prior to releasing any data for publication.

Back to the top.

Our commitment to quality in our service

The laboratory team at Cambridge IVF have a combined experience of over 40 years in performing the range of tests which in combination provide a complete and accurate semen analysis. All tests are performed in accordance with the guidance set out by the World Health Organisation (WHO), the British Andrology Society (BAS) and the Association of Biomedical Anthologists (ABA). The laboratory subscribes to the National External Quality Assurance Scheme (UKNEQAS) for Reproductive Medicine which includes diagnostic semen analysis.

Back to the top.

Queries or complaints

If you have any questions regarding any part of the Andrology Service provided by Cambridge IVF please do not hesitate to contact us using any of the contact details on the back of this information at any time between the hours of 08:00 and 16:00. If you are unhappy with any part of the service or wish to speak to someone about an issue relating to your care please contact our lead clinical scientist or if you prefer, the Patient Liaison Service (PALS) at Addenbrookes Hospital, who you can reach by emailing pals@addenbrookes.nhs.uk or telephoning extension 2756 at Addenbrookes Hospital.

Back to the top.

Referral Form for Semen and Post Vasectomy Semen Analysis