TEST

Postcoital test

A postcoital test examines cervical mucus after sex for the presence and movement of sperm.

WHAT IT MEASURES
Sperm presence and movement in cervical mucus after sex

SAMPLE
Cervical mucus from the cervix

FASTING NEEDED?
No

HOW LONG IT TAKES
About 10 to 20 minutes

RESULTS IN
Same day to several days, varying by laboratory

USED FOR
Infertility assessment, though rarely recommended

MAIN LIMITATION
Poor repeatability and little ability to predict pregnancy

Overview

The postcoital test examines cervical mucus after vaginal sex. Cervical mucus is fluid made by the cervix, the opening between the vagina and uterus. Around ovulation, it usually becomes thinner and more supportive of sperm movement.

During the test, a clinician collects mucus from your cervix and examines it under a microscope. They look at the mucus and check whether sperm are present and moving.

The test was once a common part of infertility assessment. It is now rarely recommended because results can change from one cycle to another and do not reliably predict whether pregnancy will occur. Major fertility guidelines advise against using it routinely.[1-3]

The postcoital test is also called a postcoital examination or cervical mucus-sperm interaction test. It is not the same as a semen analysis, which directly measures sperm in a semen sample.

Why the test is ordered

A fertility specialist may occasionally use the test to see whether sperm have entered cervical mucus after sex. It may also be used when there are questions about intercourse timing, ejaculation, cervical mucus, or sperm movement.

However, the result usually does not change treatment or provide a clear explanation for difficulty becoming pregnant. Other tests generally give more useful information.

These may include:

If you are offered a postcoital test, you can ask what question it is intended to answer and whether another test would be more reliable.

- Semen analysis to assess sperm number, movement, and shape
- Blood tests or ultrasound to assess ovulation
- Imaging to check whether the fallopian tubes are open
- Examination of the uterus and ovaries when appropriate

Who should have the test

The postcoital test is not recommended as a routine fertility test. NICE, the American Society for Reproductive Medicine, and the European Society of Human Reproduction and Embryology advise against routine use because it has limited predictive value and poor repeatability.[1-3]

A specialist clinic may still offer it in an unusual or carefully selected situation. This should be considered alongside the fertility and medical history of both partners, rather than as a stand-alone test.

It is not a useful screening test for people without fertility concerns. It also cannot confirm whether someone is fertile or infertile.

How to prepare

Timing is important. The test is usually planned close to ovulation, when cervical mucus is most likely to support sperm movement. Your clinic may estimate this using menstrual cycle dates, ultrasound, hormone testing, or a home urine ovulation test.

Follow the clinic's instructions about when to have sex before the appointment. The requested interval may differ between clinics. Record the approximate time of intercourse so the laboratory can interpret the sample.

Unless instructed otherwise, avoid vaginal lubricants, spermicides, douching, and vaginal

medicines before the test. Some products can affect sperm movement or change the mucus sample. If you need lubricant, ask whether the clinic recommends a product designed for use while trying to conceive.

Tell the clinic if you have unexpected bleeding, vaginal discharge, pelvic pain, or possible infection. Also mention medicines that affect hormones or cervical mucus. Do not stop prescribed medicine unless the clinician who manages it advises you to.

You do not need to fast. You may usually eat and drink as normal.

What happens during the test

You have vaginal sex at home at the time specified by the clinic. The test generally requires ejaculation inside the vagina.

At the clinic, you undress from the waist down and lie on an examination table. A clinician gently places a speculum into the vagina. A speculum is the instrument also used during cervical screening.

The clinician takes a small sample of mucus from the cervix using a narrow tube, swab, or similar device. The sample is placed on a microscope slide.

The laboratory may assess:

Collecting the sample usually takes only a few minutes. The whole appointment commonly takes about 10 to 20 minutes.

- Whether sperm are present
- How many sperm are seen in the viewed area
- Whether they are moving and how they move
- The amount, stretchiness, and appearance of the mucus
- Signs of blood, inflammation, or cells that may affect interpretation

Understanding your results

Results may be described as favourable, satisfactory, poor, or negative. The wording and criteria differ between laboratories.

A favourable result generally means that moving sperm were seen in mucus with features expected near ovulation. This does not prove that fertilisation or pregnancy will occur. The test does not assess the fallopian tubes, egg quality, implantation, or many other factors involved in

pregnancy.

A poor or negative result may mean that few or no moving sperm were seen. It does not by itself identify the cause. The sample may have been taken outside the most suitable part of the cycle, too long after sex, or under conditions that affected the mucus or sperm.

There is no single universal reference range for this test. Reported ranges and interpretation vary by laboratory method, age, the reproductive characteristics of both partners, pregnancy status, medicines, and the wider clinical context.

An unexpected result usually needs to be considered with more reliable tests rather than treated as a diagnosis.

What affects the results

The most important source of a misleading result is timing. Cervical mucus changes quickly around ovulation. A sample taken too early or too late may appear unfavourable even when there is no lasting problem.

Other factors include:

Clomifene, a medicine sometimes used to induce ovulation, can make cervical mucus thicker or less supportive in some cycles. Other hormone treatments can also change the timing and appearance of mucus.

Some fluid leaking from the vagina after sex is common and does not necessarily mean that sperm failed to enter the cervix.

- The time between intercourse and sample collection
- Whether ejaculation occurred fully inside the vagina
- Lubricants, spermicides, vaginal medicines, or douching
- Blood, vaginal infection, or inflammation in the sample
- Hormonal medicines that change ovulation or cervical mucus
- Recent fever or illness, which may temporarily affect sperm
- Natural day-to-day changes in semen quality
- Sample temperature, handling, and delay before microscopy
- Differences between observers when judging sperm movement

Accuracy and limitations

The postcoital test is not accurate enough to show reliably whether a couple can become pregnant. Results may differ when the test is repeated in another cycle, even without a meaningful change in fertility.

A poor result can suggest a problem when the real cause is incorrect timing, temporary mucus changes, sample handling, or normal variation. In other words, it can say something is wrong when there is no important barrier to pregnancy.

A reassuring result can also miss other fertility problems. Moving sperm in cervical mucus do not show whether the fallopian tubes are open, whether ovulation is occurring normally, or whether fertilisation and implantation can happen.

A randomised trial found that adding postcoital testing increased further testing and treatment without improving pregnancy rates.[4] Because of these limitations, semen analysis is usually the better test for sperm quality. Ovulation assessment and tubal imaging are more useful for answering other fertility questions.

The postcoital test should not be used on its own to diagnose a cervical cause of infertility or an immune reaction to sperm.

Risks and complications

The speculum examination may cause pressure, brief discomfort, or light spotting. Serious complications are very uncommon.

Contact the clinic routinely if mild discomfort or spotting does not settle. Seek urgent medical care for heavy bleeding, fever, or severe or worsening pelvic pain; seek emergency help for collapse or another immediately life-threatening symptom.

Because intercourse usually occurs during the fertile part of the cycle, pregnancy may result. For most people having fertility assessment this is intended, but the test should not be performed after unprotected sex if pregnancy is not wanted.

What happens next

A favourable result usually does not require treatment. Your clinician may continue the fertility assessment based on how long you have been trying to conceive, your ages, menstrual history, previous pregnancies, and any known medical conditions.

A poor or negative result should not automatically lead to treatment. The next step may be a

semen analysis, confirmation of ovulation, or assessment of the uterus and fallopian tubes. Repeating the postcoital test is generally less useful because the same timing and interpretation problems remain.

Routine follow-up can take place through the fertility clinic. Contact the clinic sooner if you develop symptoms such as fever, worsening pelvic pain, unusual discharge, or heavy bleeding after the examination.

Common questions

Can I drink coffee before a postcoital test?

Yes. Fasting is not required, and coffee is not known to change the cervical mucus sample in a way that requires avoiding it. Follow any separate instructions given for other tests scheduled on the same day.

Does the time of day matter?

The stage of your menstrual cycle and the interval since intercourse matter more than the clock time. Attend at the time arranged by the clinic so the sample can be examined promptly.

Can I exercise beforehand?

Normal exercise is unlikely to affect the result. Avoiding strenuous exercise is not usually necessary unless your clinic has given different instructions or exercise causes bleeding or pelvic discomfort.

How long before the appointment should we have sex?

Clinics use different intervals, so follow the specific instructions you receive. Having sex much earlier or later than requested can make the result difficult to interpret.

Can we use lubricant?

Many standard lubricants and spermicides can slow sperm or interfere with the sample. Avoid them unless the clinic approves a fertility-compatible product.

Can I have the test during my period?

Usually not. Menstrual blood can interfere with examination, and the mucus is generally assessed close to ovulation rather than during menstruation. Contact the clinic if bleeding begins unexpectedly.

Sources

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