

Cervical Mucus and Post Coital Test (PCT)



Concept
Fertility
Centre

12.2.4

Mucus is a normal healthy discharge which is produced in special cells in the crypts (folds) of the walls of the cervix (neck of the womb) as a natural sign of approaching ovulation.

Cervical mucus production is controlled by oestrogen hormones that are produced by the ovary and released into the bloodstream. The presence of cervical mucus allows sperm to pass from the vagina to the uterus, and also acts as a natural filter to ensure the healthiest sperm reach the uterus and, via the fallopian tubes, the ovum (egg). Changes in mucus can be observed at the cervix by the doctor or nurse and can be scored, as can changes in the cervix itself. A high score means that the woman is usually close to ovulation, and the mucus will show a distinct crystal fern-like appearance under a microscope. It can also be stretched into threads near the time of ovulation. Each woman can learn to observe these changes herself. This simple knowledge can often assist a couple in timing intercourse at the most fertile part of her cycle, or it may assist the couple when they are asked to have special tests (eg. the Post Coital Test, which is used to determine how well sperm can travel through the mucus). It may also assist the doctor in timing blood tests, or giving medication such as HCG.

Mucus flows from the cervix down the walls of the vagina and can be observed by the woman at the vulva (the outside of the vagina). She can learn to observe the changes by becoming aware of the sensation or feeling produced by the mucus, or she can observe the type of mucus by wiping the vulval area with toilet tissue before and after passing urine.

In a menstrual cycle of 28 days, at the finish of bleeding you will feel dry, no mucus will be seen, and the cervix will be closed by a thick mucus plug. After 2-3 days you may become aware of a wet or moist feeling at the vulva. No mucus may be seen or it may be thick and white or creamy. Over the next few days this consistency changes to become clear and stretchy (it may sometimes look like raw egg white) and it usually produces a slippery wet sensation. The last day of this clearer, wet, slippery mucus (referred to as the peak symptom in the Billings Ovulation Method) usually occurs within 24 hours of ovulation (release of the egg). Sperm travel through this mucus rapidly, so these are the best days to have intercourse to maximise your chances of conception. After ovulation the mucus becomes thick and/or cloudy again.

At the same time as the mucus is altering, changes are also occurring in the cervix and you can observe these yourself. After a period, the cervix is firm and closed and is usually easy to reach with a finger in the vagina. As the oestrogen

levels begin to rise, the cervix softens and begins to open. It also tilts backwards and is higher up in the vagina and harder to reach. The mucus is now becoming clearer. Close to ovulation the cervix is high, very soft and the os (or opening of the cervix) is wide open with clear mucus flowing from it. After ovulation the cervix becomes firm and low again, closes, and is plugged by thick mucus so that sperm cannot penetrate.

The changes described usually take place over 5-6 days. Sometimes they can take longer and in a few women there may only be one or two days of mucus. However, the sensation of wetness or slipperiness may still be present as a sign of approaching ovulation.

Mucus production may also be reduced after taking the oral contraceptive pill, following infection, and after surgery to the cervix, such as cautery for an erosion. This may destroy some of the mucus secreting cells. When Clomiphene is used to induce ovulation the mucus may not be as obvious and can be reduced in amount. Occasionally oestrogen cream may be used to increase the amount of mucus, but this is not always successful. Similarly cervical mucus can be acidic and consequently any sperm invading it are killed. In a few cases the mucus may be too thick, "hostile", or it may cause the sperm to clump together. Special tests can detect these problems and many, but not all, can be treated.

Even in irregular cycles the changes in mucus symptoms can help a couple to know the probable fertile time; if ovulation is delayed the onset of the mucus is usually delayed. If ovulation is going to occur early, the signs of mucus change may begin immediately after menstrual bleeding. Finally, the mucus and cervix signs can be used together with recording the basal body temperature. However, the mucus changes occur before ovulation while the shift in temperature occurs after ovulation. Thus temperature alone cannot, and should not, be used to try to predict ovulation.

Greater accuracy in predicting ovulation can be provided by using daily blood hormone tests before and around the date of ovulation. This is one of the services offered by Concept.

The Post Coital Test (PCT) involves the sampling of the cervical mucus between 4-10 hours after intercourse to determine whether the mucus is "hostile" to sperm.

Timing is very important since only mucus at or around ovulation time is not normally "hostile".

The PCT involves a visit to your doctor or the Coordinating Sister at Concept Fertility Centre where a sample of your cervical mucus is taken and examined under the microscope for evidence of live and healthy sperm. The results of this test will be provided by your consultant Doctor. Please ring their rooms to obtain these results.

THE POST-COITAL TEST (PCT) INSTRUCTIONS.

The post-coital test is performed as closely as possible to the time of ovulation when the cervical mucus is receptive to sperm migration. At any other time during your cycle, cervical mucus is hostile to sperm.

The following instructions should be followed, as closely as possible in preparation for the post-coital test:

1. The timing of ovulation will be determined by your doctor and you will be told to have intercourse around ovulation time and about 4-10 hours before the PCT.
2. Intercourse should take place according to your normal practice at the times specified by your doctor or Coordinating Sister.
3. Have a shower before you come in for your test.
4. Report to your doctor or Concept Fertility Centre for the test at the time you were instructed to do so.

If you do not know:

1. The time you are to have intercourse
2. The time and where you are to present for your PCT.
3. Any other details.

Please phone and speak to a Coordinating Sister at Concept Fertility Centre

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