

Cervical Mucus build-up in the fertile phase; Peak day & Ovulation

Where is mucus observed?

The woman observes the presence of mucus at the **vulva** (i.e. the opening of the vagina).

Why is the presence of mucus significant?

Any observation of mucus at the vulva either by **sensation** or **appearance** is significant as it indicates potential fertility, and is a sign of ovarian activity and pending ovulation, (i.e. oestrogen is being secreted in the ovary by a developing ovum). In an ovulatory cycle the **changing behaviour of mucus** from when it is first observed at the vulva to its 'peak' is called the **mucus 'buildup'**.^{2,6} The cervical mucus secretion is present for the six days or so leading up to ovulation.

Before ovulation – Effect of Oestrogen:

The Changing Pattern of the Mucus 'Build-up' to 'Peak Day' and Ovulation

- **1. Secretion of less-fertile mucus:**

After the menstrual period there may be a **sensation of dryness** at the vulva for a few days. This is followed by the beginning of [the secretion of mucus by glands in the cervical crypts](#) due to oestrogen stimulation from the developing follicle in the ovary. The woman **first observes mucus** as a **sensation of moistness** or dampness at the vulva, and/or by a vaginal mucus discharge which has a thick, opaque and jelly-like appearance and which breaks on stretching between the fingers (tacky*). These descriptions are in keeping with **less fertile mucus**. The presence of the mucus symptom indicates the beginning of the fertile phase, as it indicates ovarian activity. (*Tacky means that the mucus breaks on stretching, and never stretches beyond 0.5cm.⁶)

- **2. Secretion of more-fertile mucus:**

Then two or three days after the beginning of the mucus symptom the **sensation** at the vulva **changes** to one of **wetness, slipperiness** or lubrication, and/or the appearance of the cervical mucus is described as clear, like raw egg-white, and can hold a stretch, ('spinnbarkeit'**) ³. These observations are in keeping with **more-fertile mucus**. The wet, slippery sensation is of longer duration in young women and in parous women, and is of shorter duration in women approaching the menopause and in women who have taken hormonal contraception for several years.¹ (** Spinnbarkeit means the mucus can hold a stretch which can be up to 10 to 20 cms with 'good' spinnbarkeit.³)

Peak Day:

- **3.** Peak Day is defined as the last day that mucus with more-fertile characteristics – slippery, stretchy, clear – appears at the vulva, irrespective of quantity.¹ It can only be diagnosed the following day, when **both** the **sensation** and **appearance** have definitely **changed** to less-fertile mucus or to no mucus. It is the loss of slipperiness or wetness that helps define 'peak day'. Peak day is not necessarily the day of maximum stretch and the quantity of mucus is usually not at its maximum on the Peak Day.¹ **Peak Day coincides with the day of ovulation in 80% of cases**, and the probability of conceiving is highest on that day, i.e. **Peak Day is the day of maximum fertility.**^{1,2,4}

After ovulation – the effect of progesterone on the mucus symptom:

- **4.** After ovulation the mucus symptom dries up due to progesterone from the corpus luteum. The woman has a sensation of dryness at the vulva and there is no mucus discharge. The drying up of the mucus symptom indicates the end of the fertile phase and the beginning of the **definitely infertile phase**. The definitely infertile phase ends on the last day of the cycle, i.e. the day before the next period.

In the 'symptothermal double-check method' of natural family planning the **beginning of the fertile phase** is identified by the presence of the Mucus Symptom, either by **sensation** and/or by the **appearance** of mucus at the vulva, cross-checked with the Calendar Rule whichever come first. The **end of the fertile phase** is identified by cross-checking the Temperature (BBT) Indicator with the Mucus Symptom whichever comes last.⁴ Sexual intercourse or genital contact during the fertile phase of the cycle may lead to pregnancy.⁶ The **limits of the fertile phase** are defined by the **rules** of the chosen natural family planning method applied to the fertility indicators (fertility awareness), and the woman must be taught these rules by a qualified natural family planning teacher.

References:

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3. Cohen M, Stein I, Kaye B; 'Spinnbarkeit: A characteristic of cervical mucus; significance at ovulation time'; Fertil & Steril; Vol 3, no 3, 1952.
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