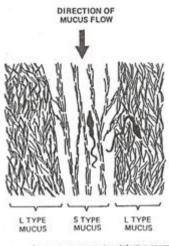
A Note About S Mucus

S Mucus (oestrogenic)

S Mucus (Fig. 11-13) from the S crypts in the upper half of the cervix appears 1-3 days later then the L mucus. The higher levels of oestrogen stimulate its production. The S mucus is fluid and when it reaches the same amount as the L mucus, the woman notices a change in the character of mucus to a wet-slippery sensation at the vulva that remains until peak day. After one or two days, the oestrogen reaches a maximum level, as also does the S mucus.² The S mucus transports and nourishes sperm. S mucus is very fluid and it forms swimming lanes in which sperm cells move along the cervical canal very rapidly, reaching the S crypts in the cervix in 3-10 minutes.^{3,7} Both L and S mucus cooperate to bring about an optimal sperm propagation to a crypt.



L-type mucus capturing detective sperm The **qualities of more-fertile mucus** – clear, stretchy, spinnbarkeit, associated with a sensation of wetness, slipperiness or lubrication are due to the combined effects of L, S and P mucus. S mucus nourishes sperm in the crypts.¹ Sperm can survive in the oestrogenic **more-fertile** mucus for up to five days.

<< Fig. 11-13; Structure of S Mucus: Diagram of sperm swimming up the cervical canal in the swimming lanes of S mucus. The L mucus acts as a filter for defective sperm.

S crypts and pre-menopause (ageing of the cervix):

The cervix ages naturally from birth to post-menopause. At **puberty** S crypts are very numerous but with increasing age L crypts replace S crypts.⁶ In the **pre-menopause** the decrease in number of S crypts results in a decrease in the number of days of more-fertile mucus. **NOTE:** When the **cervix has aged**, a woman may ovulate but yet produce **no** cervical mucus. Since the mucus is essential for sperm entry, even though the woman may have a biphasic temperature, such women are said to have **non-fertile ovulations**.¹ Pregnancy stimulates the production of S crypts and rejuvenates the cervix by two to three years.⁶

<u>S crypts and hormonal contraception (the 'Pill'):</u>

Oral contraceptives double the functional rate of aging of the cervix.⁶ "After three and up to fifteen months of contraceptive use, there is a greater loss of the S crypt cells than can be replaced".⁵

References:

- Klaus, Hanna; 'Natural family planning Is it scientific? Is it effective?' see page 4, 13; Newman Lecture Series 1;May 21, 2000. (online).
- 2. Odeblad Erik; 'Investigations on the physiological basis for fertility awareness; Bulletin for the Ovulation Method Research and Reference Centre of Australia, vol 29, no 1, p2-11, march 2002, (internet, Billings Ovulation Method, <u>www.woomb.org</u>)
- 3. Odeblad, E; 'The discovery of different types of cervical mucus and the Billings Ovulation Method' page 10, 11, 14, 15, 18; Bulletin of the Ovulation Method Research and Reference Centre of Australia, Vol 21, No3; 3-35; Sept 1994. (google 'Erik Odeblad, cervical mucus'.)
- 4. Odeblad E; 'Some notes on the biology of the cervix' 2007 (internet, google 'Erik Odeblad, cervical mucus')
- Odeblad E; "Some notes on the cervical crypts"; Bulletin of the ovulation method Research and reference centre of Australia, vol 24 no 2 June 1997, p31.
- 6. Klaus, H ; Natural Family Planning : A Review 2nd Edition. July 1995, page 6; NFP Center of Washington, D.C. Inc., 8514 Bradmoor Drive, Bethesda, MD 20817-3810
- 7. Fordney Settlage, Diane S, et al; 'Sperm transport from the external cervical os to the fallopian tubes in women : A time and quantitation study' Fertil and Steril; Vol 24, No 9, Sept 1973