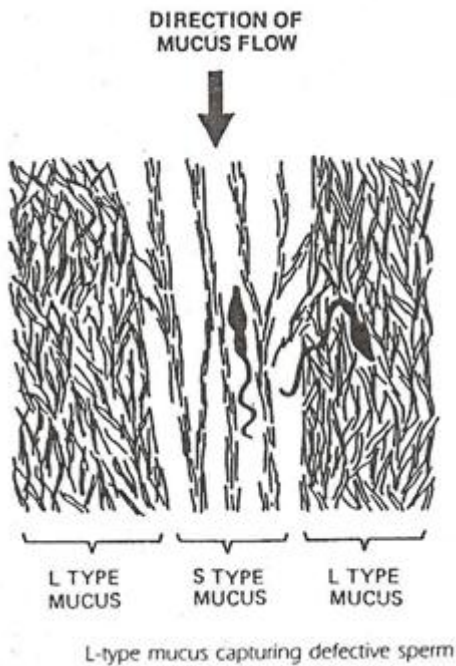


# A Note About L Mucus

## **L Mucus (oestrogenic)**

**L mucus** (Fig. 11-12) is secreted during the whole fertile phase, in the L-secreting crypts which are distributed along the whole cervical canal, but dominating the lower half of the canal,<sup>4</sup> and its production is stimulated by medium levels of oestrogen. When oestrogen begins to rise, the L cells begin to produce mucus. **L mucus is the first oestrogenic** type mucus to be secreted. L mucus is more fluid and begins to descend through the vagina and reach the vulva, initially dislodging the plug of G mucus which then flows to the vulva.<sup>1</sup> This downflow is facilitated by the mucolytic activity of P2 mucus which is at its maximum level at the beginning of the fertile phase. When the **L mucus exceeds 50%** of the total mucus, the **woman perceives the beginning** of the **fertile phase** as a change in the character of the vaginal outflow.<sup>2</sup> L mucus is sticky, a bit elastic and is either opaque or translucent.<sup>1</sup> L mucus is responsible for the typical ferning pattern that has long been associated with cervical mucus.



### L-mucus has four functions:

- (a) The **alkaline L-type mucus** neutralizes the **acidic vaginal secretions** to provide a hospitable medium for sperm survival. Sperm die rapidly-perhaps within 30 minutes in the acid environment of the vagina in the infertile phase, but may survive up to five days in fertile-type mucus.<sup>2</sup>
- (b) L mucus supplies a supportive framework for the S-mucus swimming lanes.<sup>3</sup> Both L and S mucus co-operate to bring about optimal sperm propagation to a crypt.
- (c) L mucus has a medium viscosity and it acts as a biological filter to weed out defective sperm.<sup>2</sup>
- (d) L mucus closes the opening of the S crypts once they have been filled with approximately 20-30 spermatozoa.<sup>1</sup>

<< Fig. 11-12; Structure of L Mucus: Diagram of L mucus filtering defective sperm, and S mucus transporting sperm in the swimming lanes.

### References:

1. Klaus, H; 'Natural family planning – Is it scientific? Is it effective?' see page 4, 9, 10; 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, [www.woomb.org](http://www.woomb.org) )
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. Menarguez M, Pastor LM, Odeblad, E. 2003; 'Morphological characterization of different human cervical mucus types using light and scanning electron microscopy; Human Reproduction; Vol. 18 No 9,

1782-1789, Sept 2003; (google Erik Odeblad).