

FOR CHAPTER 4

Short overview of contraception methods

Barriers (male condom, female condom, diaphragm in combination with spermicide) hinder sperm from entering the uterus to meet a mature egg cell. Relatively high effectiveness dependent on user.

Intrauterine devices (IUDs) are inserted into the uterus. Copper IUDs hinder fertilization by damaging sperm and disrupting their motility. If pregnancy nevertheless occurs, the endometrium (womb lining) is also affected, such that the fertilized egg cannot implant itself and dies. The hormonal IUD (also called an intrauterine system, IUS) contains levonorgestrel. This prevents ovulation in most women and thickens cervical mucus such that the sperm cannot enter the uterus. The endometrium changes, causing possibly-fertilized egg cells not to implant themselves. This also applies to what is called emergency contraceptives ('morning-after pills').

Hormonal contraception refers to minipills, oestrogen-free pills and injections, all of which contain the hormone *progestogen* and work in similar ways (they cause the cervical mucus to thicken and to thin the endometrium, which hinders an embryo from becoming implanted).

The main objective of the vaginal ring (a rubber ring is inserted into the vagina for three weeks in every cycle), contraceptive implant (inserted under the skin in the upper arm) and contraceptive patch is to prevent ovulation, but these devices also contain progestogen, which thins the endometrium and makes it less likely for fertilized egg cells to become implanted. There is little likelihood of ovulation, but it sometimes happens, so there is still a small chance that an embryo will die from not having good growing conditions.

All forms of contraception that reduce the endometrium's (i.e., the uterine lining's) ability to let fertilized egg cells (human embryos) become implanted can potentially have an abortive effect.

Sterilization is a surgical procedure. Men can have a vasectomy, and women can have a tubal ligation. Sterilization is intended to be permanent. It is very difficult to reverse.

Short overview of natural methods for regulating childbirth

Billings method – The time of ovulation, potential fertility and obvious infertility are identified through daily observing vaginal secretion. Thin, clear and elastic secretion indicates fertile days; thick secretion or no secretion indicates infertile days. Observation of three to six cycles is necessary to become adept (to feel secure) when using this method.

Temperature method – The time of ovulation is determined by taking the woman's temperature at the same time each morning, using a thermometer marked with tenths of a degree. The woman's body temperature rises by several tenths at ovulation. You need to observe for three to six cycles to become confident about using the method. You can buy a temperature-based fertility

analyser that is easy to use and which indicates fertile periods with 99% accuracy after two to three months of registration.

Hormone-measurement method – With the help of Uristix (urine analysis strips) and a mini-computer or analyser, you can read the levels of oestrogen and progesterone in the urine. These change in relation to the fertility pattern in the woman's menstrual cycle and give a very accurate indication of the time of ovulation.

The 'sympto-thermal' method and other combination methods use several parameters to map the woman's fertility pattern. Most common are to observe vaginal secretion in combination with measuring the woman's body temperature and observing other physiological changes, e.g., pain from ovulation, sensitive breasts, observation of the firmness of the cervix, and so on.

In recent years, different types of body sensors have been developed which relate to the various methods; these sensors gather and systematize data about the woman's cycle and can be connected to a computer, digital tablet or so-called smart phone.

All these methods take into consideration the individual variations in a woman's cycle. They do not disturb the natural hormone balance. They also take into account that after having intercourse, the man's sperm can survive for several days inside the woman. Most of the methods are easy to understand, but they require that the man and woman follow them carefully. It can be useful to be followed up by an educated instructor. It usually takes three to six cycles to get a correct picture of the woman's fertility pattern. During this mapping phase, it is wise to avoid sexual intercourse for some extra days, in order to become well-acquainted with the woman's fertility pattern, before you eventually try to have children together. Good self-discipline and patience are the most important qualities to practise during this period.