**(iii) Contraception**

Objectives from this section are as follows –

* Biological basis of physical methods such as barrier methods, avoiding fertile periods, intra uterine devices and sterilisation procedures.
* Chemical contraceptives are based on combinations of synthetic hormones that mimic negative feedback preventing the release of FSH/LH, prevent implantation (‘morning after pills’) or cause thickening of the cervical mucus (‘mini pill’).

Pupil notes

The prevention of conception (or pregnancy) by natural or artificial means

Physical methods (3)

Barrier Method

The barrier method physically blocks the ability of the sperm to reach the ovum

Devises include

Condom (fits over penis)

Diaphragm (dome shaped rubber cap inserted into the vagina blocking the cervix)

Cervical cap (rubber structure which fits tightly around the cervix and can be left in place for a few days)

Avoidance of ’Fertile Period’ is also a method of contraception

Intra Uterine Device

An IUD is a plastic T-shaped structure with copper wound around its outside

It is fitted into the uterus for months (or even years)

It has threads attached for easy removal

It prevents the implantation of an embryo

It should really be termed a contragestic device as it prevents gestation

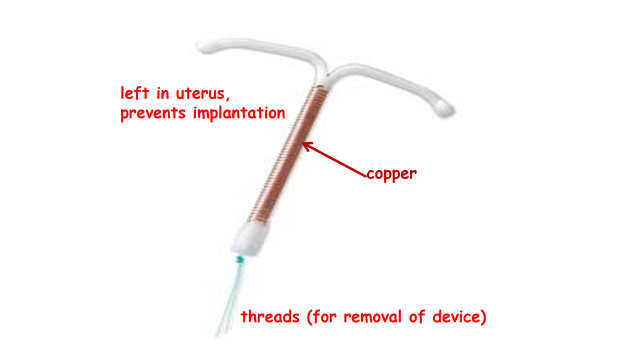
The presence of an IUD stimulates the presence of white blood cells which are hostile to sperm (and embryo)

It impairs the mobility of the sperm

It irritates the lining of the uterus, making it unreceptive to the embryo

IUD can cause complications – inflammation of the uterus and Ectopic Pregnancy

Many people are uneasy about the Ethics involved



Sterilisation Procedures

3(a). Vasectomy

This involves cutting and tying the two sperm ducts

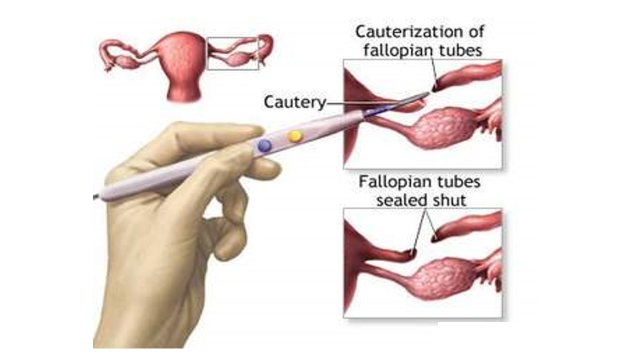
This prevents sperm being released

The sperm produced undergo Phagocytosis

3(b). Tubal Ligation

This involves cutting and tying the two oviducts

This prevents eggs meeting sperm



Chemical methods of Contraception

Pills containing a combination of hormones

Oral contraceptive pills usually contain synthetic oestrogen combined with synthetic progesterone

The pill is taken every day for 3 weeks from the final day of the previous menstrual period

This increases the concentration of oestrogen and progesterone in the bloodstream and exerts negative feedback control

Secretion of FSH and LH by the pituitary is inhibited

Follicle maturation remains inhibited

Ovulation does not occur

Placebo pills are taken during week 4 to allow oestrogen and progesterone levels to degrease

As a result, menstruation takes place

‘Morning-after Pill’

Contain higher doses of hormones than the standard oral contraceptive pill

They are taken after unprotected sex to prevent implantation (if fertilisation has occurred)

‘Mini Pills’

These are known as progesterone-only pills

They do not contain synthetic oestrogen

Mini pills thicken the cervical mucus, reducing the viability of sperm

This form of contraception can also be given as an implant, under the skin

It can give protection for up to 3 years

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Advantages include -

Can be used during breast feeding

Can reduce cramps and heavy bleeding

Can be taken by women who cannot take oestrogen

Can be taken by women who have high blood pressure

Disadvantages include -

Must be taken at the same time every day

Can cause breast tenderness

Can cause mood swings

Can lead to weight gain

Can lead to irregular menstruation