

ORAL CONTRACEPTIVES

There are many different methods of ensuring that conception and pregnancy do not follow sexual intercourse, but for many women oral contraception is the preferred method because it is highly effective (see table, right), convenient, and unobtrusive during sexual intercourse. About 30 per cent of the women who seek contraceptive protection in Britain choose a form of oral contraceptive.

There are three main types of oral contraceptive: the combined pill, the progestogen-only pill (POP), and the phased pill. All three types contain a progestogen (a synthetic form of the female sex hormone, progesterone). Both the combined and phased pills also contain a natural or synthetic oestrogen (see also Female sex hormones, p. 105).

Why they are used

The combined pill

The combined pill is the most widely prescribed form of oral contraceptive and has the lowest failure rate in terms of unwanted pregnancies. It is referred to as the "pill" and is the type thought most suitable for young women who want to use a hormonal form of contraception. The combined pill is particularly suitable for those women who regularly experience exceptionally painful, heavy, or prolonged periods (see Drugs used to treat menstrual disorders, facing page).

There are many different products available containing a fixed dose of an oestrogen and a progestogen drug. They are divided generally into three groups according to their oestrogen content (see table, below). Low-dose products are chosen when possible to minimize the risk of adverse effects.

COMPARISON OF RELIABILITY OF DIFFERENT METHODS OF CONTRACEPTION

The table indicates the number of pregnancies that occur with each method of contraception among 100 women using that method in a year. The figures are for correct usage; if a contraceptive is used incorrectly, the failure rate will be higher. The wide variation in figures for the morning after pill reflects the difference in effectiveness depending on how soon it is taken after unprotected sex.

Method	Pregnancies *
Combined and phased pills	Less than 1
Progestogen-only pill	About 1
IUD (intrauterine device)	Less than 1
Male condom	About 2
Female condom	About 5
Diaphragm with spermicide	4-8
Cap with spermicide	4-8
IUS (intrauterine system)	Less than 1
Contraceptive implant	Less than 1
Contraceptive injection	Less than 1
Morning after pill	About 2-42

* Per 100 users per year.

Progestogen-only pill

The progestogen-only pill (POP) is often recommended for women who react adversely to the oestrogen in the combined pill or for whom the combined pill is not considered suitable because of their age or medical history (see Risks and special precautions, p.123). It is also prescribed for breast-feeding women, since it does not reduce milk production. For maximum contraceptive effectiveness, the progestogen-only pill must be taken at precisely the same time each day. It works by changing the quality of the endometrium (the lining of the uterus), making implantation of a fertilized egg less likely. However, Cerazette (a brand of the progestogen, desogestrel) also inhibits ovulation, making it more reliable than other POPs.

Phased pills

The third form of oral contraceptive is a pack of pills divided into two or three groups or phases. Each phase contains a different proportion of an oestrogen and a progestogen. The aim is to provide a hormonal balance that closely resembles the fluctuations of a normal menstrual cycle. Phased pills provide effective protection for many women who suffer side effects from other available forms of oral contraceptive.

How they work

In a normal menstrual cycle, the ripening and release of an egg and the preparation of the uterus for implantation of the fertilized egg are the result of a complex interplay between the natural female sex hormones, oestrogen and progesterone, and the pituitary hormones, follicle-stimulating hormone (FSH) and luteinizing hormone (LH) (see also p.105). The oestrogen and progestogens in oral contraceptives disrupt the normal menstrual cycle in such a way that conception is less likely.

With combined and phased pills, the increased levels of oestrogen and progesterone produce similar effects to the hormonal changes of pregnancy. The actions of the hormones inhibit the production of FSH and LH, thereby preventing the egg from ripening in the ovary and from being released.

The progestogen-only pill has a slightly different effect. It does not always prevent release of an egg; its main contraceptive action may be to thicken the mucus that lines the cervix, preventing sperm from crossing it. This effect occurs to some extent with combined and phased pills. Cerazette, additionally, inhibits ovulation.

How they affect you

Each course of combined and phased pills lasts for 21 days, followed by a pill-free seven days, during which time

HORMONE CONTENT OF COMMON ORAL CONTRACEPTIVES

The oestrogen-containing forms are classified according to oestrogen content as follows: low: 20 micrograms; standard: 30-35 micrograms;

high: 50 micrograms; phased pills: 30-40 micrograms. Morning after: 1.5 milligrams (levonorgestrel), 30 milligrams (ulipristal).

Type of pill (oestrogen content)	Brand names
Combined (20mcg)	Loestrin 20, Femodette, Mercilon
(30-35mcg)	Brevinor, Cilest, Femodene, Femodene ED, Loestrin 30, Marvelon, Microgynon 30, Microgynon 30 ED, Norimin, Ovranette, Ovysmen, Yasmin
(50mcg)	Norinyl-1 (as Mestranol)
Phased (30-40mcg)	BiNovum, Logynon, Logynon ED, Synphase, Triadene, TriNovum
Progestogen-only (no oestrogen)	Cerazette, Micronor, Norgeston, Noriday
Postcoital (morning after) (no oestrogen)	EllaOne, Levonelle 1500, Levonelle One Step