The first oral contraceptive, norethindrone, was synthesised by Carl Djerassi in 1951. This graphic looks at the range of compounds used and how they work.

**The Natural Hormones**

- **Estradiol**
- **Progestosterone**

Oral contraceptives contain synthetic versions of two hormones produced naturally by the body: estrogens and progestogens. Both hormones have roles in the female menstrual cycle.

**How Oral Contraceptives Work**

- **Maintain Consistent Hormone Levels**
- **Suppress Release of Other Hormones**
- **Prevents Ovulation**

Steady levels of estrogens and/or progestogens in the body as a result of oral contraceptives trick the pituitary gland into thinking a woman is already pregnant, stopping it from releasing hormones that stimulate ovulation, and preventing pregnancy. Progestogens promote formation of a thicker layer of cervical mucus, which makes it difficult for sperm to reach the uterus, and also affect the uterine lining and make it harder for an egg to attach.

**Progestogens**

- **Norethindrone**
- **Levonorgestrel**

Can be used in combination with estrogens, but also on their own in progestogen-only pills. These pills must be taken continuously and within 3 hours of a specific time every day. Recommended for breast-feeding women, as it doesn’t affect milk production.

**Estrogens**

- **Ethynyl Estradiol**
- **Mestranol**

Combined oral contraceptive pills include an estrogen as well as a progestogen. Most are taken over a 28 day cycle, with 21 pills taken, followed by a week of no pills. They must be taken within 12 hours of a specific time every day to maximise protection.

99.9% Effective (When Taken Correctly)