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Progestogen-only contraceptive pill (POP)

The progestogen-only contraceptive pill is commonly used when the combined pill is not suitable but is also used out of choice for many women. It can be taken safely when breastfeeding.

What is the progestogen-only pill?

The progestogen-only pill (POP) is an effective method of contraception if used correctly. It is often used when the combined pill (which contains oestrogen as well as a progestogen) was not suitable for a particular woman. However, the development of newer and better progestogen-only pills means that they are often chosen instead of the combined pill. It can be used safely during breastfeeding.

In North America it is called the [progestin-only pill](#).

You can read more about the combined pill [in our separate leaflet called The Combined Oral Contraceptive \(COC\) Pill](#).

How does the progestogen-only pill work?

The POP contains a progestogen hormone. This hormone is similar to the progesterone hormone made by the ovaries. A progestogen is also the hormone that is in several other types of contraceptives. You can read more about these other types of progestogen contraceptives in our separate leaflets called [Contraceptive Injection](#), [Contraceptive Implant](#), [Intrauterine System \(IUS\)](#) and [Emergency Contraception](#).

The progestogen hormone in older (traditional) POPs is either levonorgestrel or norethisterone. Brands currently available in the UK are Noriday® and Norgeston®. The newer type of POP contains a progestogen hormone called desogestrel. Brands currently available include Cerazette®, Aizea®, Cerelle® and Feanolla® but these pills will usually be prescribed generically (by the drug name rather than the brand name).

Desogestrel works by stopping ovulation ie stopping the ovaries from releasing an egg each month.

The older POPs work mainly by thickening the sticky mucus made by the neck of the womb (cervix). The mucus forms a plug in the cervix. This reduces the ability of the sperm to get through to the womb (uterus) to fertilise an egg. They also have some effect on the ovary by reducing the frequency of ovulation but not usually by stopping it entirely.

How effective is the progestogen-only pill?

Desogestrel is a very effective contraception. When it is used correctly, fewer than 10 in 1,000 women using it will become pregnant each year. The older progestogen-only pills are less effective – which is why they were often only used if there was no alternative in the past – between 30 and 70 women in 1,000 will become pregnant each year with these pills. (If no contraception is used, more than 800 in 1,000 sexually active women become pregnant within one year.)

Why to choose the progestogen-only pill:

- Taking the POP does not interfere with sex.
- It can be taken at any time after childbirth, including immediately after delivery.
- It can be taken when breastfeeding.
- It has a lower dose of hormone than the combined pill.

- The POP does not increase the risk of blood clots (unlike the combined pill). It can therefore be used by some women who cannot take the combined pill – for example, women over 35 who smoke, women with particular types of [migraines](#) or women with [high blood pressure](#).

Are there any problems with using the progestogen-only pill?

- The pill needs to be taken at the same time each day – for desogestrel, it needs to be taken within 12 hours of this time. For older POP brands, this means within three hours which is one of the reasons these are less effective.
- It can cause irregular periods. See the section below.
- It can cause some side-effects, although these are usually mild. See the section on side-effects.
- It cannot be taken with some kinds of other medication. See the section about medicines which interfere with the POP.
- It may increase the likelihood of developing [cysts in your ovaries](#). If this happens they are usually very small and do not need any treatment.
- It gives a small increased risk of developing [breast cancer](#).
- In a pregnancy occurring while taking the POP, there is a small risk that it might be an [ectopic pregnancy](#). However, ectopic pregnancy is still far less likely when taking the POP than when not using any contraception.

Does the progestogen-only pill stop periods?

The effect on periods can vary. Some women taking the POP continue to have regular normal periods. However, some have irregular periods, some have very infrequent periods and many have no periods at all. Some women also have occasional 'spotting' between periods.

Changes in bleeding patterns when taking the POP are common:

- 5 in 10 women have no bleeding or very infrequent bleeding.
- 4 in 10 women have bleeding occurring 3–5 times in 3 months.
- 1 in 10 women have more frequent bleeding or spotting – 6 episodes or more in 3 months.

The POP needs to be taken every day, including when bleeding. A significant change to the bleeding pattern after taking the POP for a few months should be reviewed by a clinician. Irregular bleeding can sometimes be due to another reason (for example, a sexually transmitted infection) which may need to be treated.

Progestogen-only pill side-effects

Side-effects are uncommon. If one or more do occur, they often settle down over a couple of months or so. Examples of possible side-effects include mood swings, increase in [acne](#), and breast discomfort. There is no evidence that the POP causes women to put on weight.

In March 2023, a study was published which showed an increased risk of breast cancer in women taking all forms of contraception containing progesterone – the combined pill, the progestogen-only pill, the injection and the intra-uterine devices. This increased risk has been stated as 20–30% and was found to be 26% with the progestogen-only pill. This risk sounds high on paper but can be broken down to show:

If women take progestogen-only contraception for five years, overall there are an additional 8 breast cancer diagnoses per 100,000 women in 16–20 year olds and up to 265 extra cases of breast cancer per 100,000 women in the 35–39 age range, over the next 15 years. The baseline risk of breast cancer at any age is 12,900 per 100,000 women (490 per 100,000 30 year olds; 1,539 per 100,000 40 year olds; 2,380 per 100,000 50 year olds; 3,571 per 100,000 60 year olds). So the additional risk from contraception is low but needs to be considered.

The risk of breast cancer increases with age as well as with other conditions. For example, women who drink alcohol above the recommended limits also increase their risk of breast cancer by 20%. Obesity also increases the rates of breast cancer (approximately 9 in 100 women within a healthy weight range will develop breast cancer over the age of 50; approximately 12 in 100 obese women will develop breast cancer at the same age). Smoking for 10 years increases the risk of breast cancer by around 10%. There is no evidence yet on the effect of progestogen-only contraception on women with higher genetic risks of breast cancer.

There are many factors that can affect the risks of breast cancer and hormonal contraceptives is just one of them. The pros and cons need to be weighed up, including the risks of pregnancy if reliable contraception is not used.

Currently, the guidance for having progesterone-only contraception has not changed, as benefits outweigh the risks.

Who cannot take the progestogen-only pill?

Most women can take the POP and it can be taken until 55 years of age. [See our separate leaflet called Contraception for the Mature Woman for more information.](#)

The doctor, family planning nurse or other clinician will discuss any current and past illnesses. Women who have or have had [breast cancer](#) should not take the POP. Women who have had a blood clot in the lung or leg in the last 3 months should also not take the POP. It should not be taken in women with very severe liver disease or liver tumours. Certain medications mean that women are unable to take the POP, especially some medications for [epilepsy](#). See the section on other medicines below.

How to take the progestogen only pill?

The progestogen only pill is taken every day, at the same time every day (or as close to that time as possible).

When starting the pill for the first time, it is ideal to start taking the pill on the first to fifth day of the period. It then becomes effective immediately. (ie if day 1 is the first day of the period, if the POP is started on day 1, 2, 3, 4 or 5, it starts working straight away).

If it is started on any other day (during the rest of the cycle or at any time if there is no regular cycle), additional contraceptive methods (such as using condoms or not having sex) should be used for the first 48 hours after starting it. This is until the POP has become effective.

After having a baby, the POP is immediately effective if started before day 21 after the birth. If started after day 21, additional contraception (for example, condoms or not having sex) should be used for 48 hours.

The POP should be taken at the same time of day, every day. Any time of day will do but the most important thing is to get into a routine. It is not stopped when bleeding – it is taken **every** day. When one pack is finished, the next pack starts the next day.

With desogestrel, there is a 12-hour window to take the pill. Extra protection will be needed if taking the pill more than 12 hours late. There is only a 3-hour window with the older POPs.

When switching to the POP from a different type of contraception, advice should be taken from the doctor or nurse prescribing the POP as to how to switch and when the POP will become effective.

What if I forget to take a pill?

If you forget to take a POP, take it as soon as you remember. This may mean that you take two pills in one day (do not take more than one missed pill).

For older POPs

If you are more than three hours late in taking it (more than 27 hours since your last pill) then your protection immediately fails.

For the desogestrel POP

If you are more than 12 hours late in taking it (more than 36 hours since your last pill) then your protection immediately fails.

For all types of POP

- Continue taking your pill each day, but you will need to avoid sex, or use extra contraception (such as condoms) for 48 hours, until the POP becomes effective again.
- If you have had unprotected sex (without a condom) after the missed pill or in the 48 hours that followed it, you will need [emergency contraception](#).

What if I am vomiting or have diarrhoea?

If you are sick (vomit) within two hours of taking your POP or have severe [diarrhoea](#), the pill might not be absorbed. Carry on taking the POP as usual but use other forms of contraception (such as condoms) for the duration of the illness **plus** for a further 48 hours after the vomiting or diarrhoea has stopped.

Do other medicines interfere with the progestogen-only pill?

Some medicines may interfere with the POP and make it less effective. It is important to advise the doctor or pharmacist, when prescribed or buying another medicine, that you take the POP.. Medicines which interfere with the POP include:

- [Some medicines for epilepsy](#) – for example, [carbamazepine](#), [oxcarbazepine](#), [eslicarbazepine](#), [phenytoin](#), [phenobarbital](#), [primidone](#) and [topiramate](#). Some of these pills are used for other problems – for example, migraine or pain.
- The antibiotics [rifampicin](#) and [rifabutin](#). (Other antibiotics do not affect the POP.)
- Some medicines used to treat [HIV and AIDS](#) – for example, [nevirapine](#) and [ritonavir](#).

- St John's wort. This is a treatment bought over the counter and sometimes used for [depression](#). A doctor will not know someone is taking it so it needs to be mentioned. The POP may not work when taking St John's wort.
- Ulipristal acetate. This is a medicine which comes in two forms – as ellaOne® for [emergency contraception](#), and Esmya® for [fibroids](#). If you take the POP after using ellaOne®, you should not take a POP for five days. This is because the POP can stop the ellaOne® from working. You will need to avoid sex or use a barrier contraceptive (eg, condom) for seven days from the day you took ellaOne®. If you take Esmya® you should not use the POP. You should also not take it for 12 days after finishing it.

Further reading

- [Progestogen-only Pills](#); Faculty of Sexual and Reproductive Healthcare (August 2022, amended November 2022)
- [CEU Clinical Guidance: Emergency Contraception](#); Faculty of Sexual and Reproductive Healthcare (March 2017 – updated July 2023)
- [CEU Clinical Guidance: Contraception After Pregnancy](#); Faculty of Sexual and Reproductive Healthcare (January 2017, amended October 2020)
- [Contraception – Progestogen-only methods](#); NICE CKS, September 2022 (UK access only)
- [Combined and progestagen-only hormonal contraceptives and breast cancer risk: A UK nested case-control study and meta-analysis](#); Public Library of Science (PLOS, March 2023)

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Last updated by: Dr Philippa Vincent, MRCGP 28/07/2023	
Peer reviewed by: Dr Toni Hazell, MRCGP 28/07/2023	Next review date: 26/07/2028

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