

Progestogen only pill (POPs)

This type of pill does not contain oestrogen and the dose of progestogen is significantly lower than in those used in combined oral contraceptive pills (COC). It is also called the “mini-pill” and is useful for women who do not want pills that contain oestrogen or in situations where the oestrogen is not suitable for medical reasons. They are a highly effective method of birth control when taken correctly.

Formulation

Available formulations are:

- Norethisterone 350 ug (NET) - (Noriday)
- Levonorgestrel (LNG) 30 µg
- Desogestrel (DSG) 75 µg - (Cerazette)

Levonorgestrel (LNG) and norethisterone (NET) are grouped together as “traditional’ POPs”

Mechanism of action

- It prevents sperm penetration via thickening of the cervical mucus.
- It may prevent the release of the egg from the ovary (inhibit ovulation).
- It may prevent implantation because of thinning effects on the endometrial layers.

Advantages

- POPs are rapidly reversible.
- Suitable and safe for women above 35 years old.
- Safe and suitable for breastfeeding mothers.
- Does not contain oestrogen, therefore suitable for women with certain medical condition (such as hypertension, diabetes and migraine) that are not suitable for pills that contain oestrogen (such as the COC pills).
- There are several non-contraceptive health benefits of POPs and include: decreased menstrual blood loss with lowered risk of anaemia, decreased period pain (dysmenorrhea), decreased cyclic mood changes or other premenstrual syndrome problems, protection from endometrial cancer, decreased pain from endometriosis, decreased pelvic inflammatory disease (from thickened, impenetrable cervical mucus).

Disadvantages

- Changes in menstrual bleeding pattern and this varies from intermittent irregular spotting or prolonged spotting to total absence of menstruation. In women with pre-existing heavy menstrual flow or pain associated with menses, the absence of menstruation will be an advantage and beneficial.
- There is no protection from sexually transmitted infections (STI) or HIV.
- Narrow time window for missed pills, therefore must be taken at the same time every day. Therefore, this is less effective if a person is not compliant to regular pill taking.

Effectiveness

As with all oral pills, the effectiveness of POPs is user-dependent. Correct and regular pill-taking is important. If used perfectly, it may be more than 99% effective; but with typical use, the risk of pregnancy during the first year has been estimated at about 9%. Overall, it is generally slightly lower than the combined oral contraceptive pills (COC) due to the narrow window of missed pill duration.

Side effects

- Irregular menstruation is not uncommon but usually improves with continuous use. It is usually spotting or light bleeding only. With continuous use, some women may not have menses at all.
- Functional ovarian cyst – this is seen via ultrasound scan and is usually small and resolves on its own.
- Minor side effects include headache, breast tenderness, nausea, and changes in mood or libido. Sometimes skin changes such as acne or hirsutism may present but this is uncommon. Weight gain has been a concern but is generally not a significant problem in many women. These minor side effects often improve with time. Serious side effects are rare.

Who Should Not Use Progestogen-Only Pills:

- Women with certain cardiovascular conditions or a history of stroke.
- Women who are or may be pregnant.
- Women with severe liver disease.
- Women with unexplained vaginal bleeding.
- Women with current or past history of breast cancer.

Instruction for pill taking

- Some medications may interact with POPs. Inform your healthcare provider about all the medications that you are currently taking before starting the POPs.
- Start the pill on the first or second day of your normal menses. Protection is immediate and you do not need extra precaution. Or you can start anytime in your menstrual cycle if you are sure you are not pregnant (eg no prior unprotected intercourse for at least 2 weeks or after a negative pregnancy test). You will need protection for at least 2 days for the pills effect to start.
- POPs must be taken at about the same time every day, without a break, including during your bleeding days or when having a period.
- Set an alarm for reminder every day.
- You can take POPs with or without food.
- If a pill is missed or if taken late, have a back-up method available or abstain from sex for a period of time as detailed below.
- Vomiting or diarrhoea – take another pill immediately. If this occurs within the 3 hours for (traditional POP) and 12 hours (for DSG POP), then the effective is still the same. However, if it exceeds the time limit, treat this as missed pills and see the instruction below.

Missed pills – what to do

- Traditional POPs (norethisterone (NET) 0.35 mg or levonorgestrel (LNG) 30 µg)

If you miss a pill by more than 3 hours, take the missed pill as soon as possible even if it means taking two pills in one day. Continue taking the pills at your regular time. You will need additional contraception (e.g., condoms) for the next 48 hours. If unprotected intercourse occurs then emergency contraception must be considered.

- Desogestrel (DSG) 75 µg - (Cerazette)

If you miss a pill by more than 12 hours, take the missed pill as soon as possible even if it means taking two pills in one day. Continue taking the pills at your regular time. You will need additional contraception (e.g., condoms) for the next 48 hours. If unprotected intercourse occurs then emergency contraception must be considered

Instruction for Missed pills

Table 1: Recommendations following incorrect progestogen-only pill use

	Traditional POP	DSG POP	DRSP POP (see also Appendix 2 and Appendix 3)
When is a pill missed?	A pill is missed if taken >3 hours late (>27 hours after last pill taken)	A pill is missed if taken >12 hours late (>36 hours after last pill taken)	A pill is missed if taken >24 hours late (>48 hours after last pill was taken or >24 hours after a new packet should have been started after an HFI)
Action if pill(s) missed	<ul style="list-style-type: none"> Take the most recent missed pill as soon as possible Take the next pill at the usual time (this may mean taking two pills in 1 day) Use additional contraceptive precautions (eg, condoms) for 48 hours after correct pill-taking has restarted Consider EC 	<ul style="list-style-type: none"> Take the most recent missed pill as soon as possible Take the next pill at the usual time (this may mean taking two pills in 1 day) Use additional contraceptive precautions (eg, condoms) for 7 days after correct pill-taking has restarted Consider EC OMIT THE HFI (PLACEBO PILLS) IF ANY OF THE LAST 7 ACTIVE PILLS ARE MISSED 	<ul style="list-style-type: none"> Take the most recent missed pill as soon as possible Take the next pill at the usual time (this may mean taking two pills in 1 day) Use additional contraceptive precautions (eg, condoms) for 7 days after correct pill-taking has restarted Consider EC OMIT THE HFI (PLACEBO PILLS) IF ANY OF THE LAST 7 ACTIVE PILLS ARE MISSED
Is EC required?	EC should be considered if there was UPSI from the time that the first pill was missed until correct pill-taking had resumed for 48 hours	EC should be considered if: <ul style="list-style-type: none"> Any active pill(s) were missed and there was UPSI from the time that the first pill was missed until correct pill-taking had resumed for 7 days Pill(s) were missed on days 1–7 of the packet and there was UPSI during the HFI or week 1 See (Appendix 2 and Appendix 3 for EC if there has been incorrect use of DRSP POP	EC should be considered if: <ul style="list-style-type: none"> Any active pill(s) were missed and there was UPSI from the time that the first pill was missed until correct pill-taking had resumed for 7 days Pill(s) were missed on days 1–7 of the packet and there was UPSI during the HFI or week 1 See (Appendix 2 and Appendix 3 for EC if there has been incorrect use of DRSP POP
Follow-up	Consider pregnancy test 21 days after last UPSI		

DRSP, drospirenone; DSG, desogestrel; EC, emergency contraception; HFI, hormone-free interval; POP, progestogen-only pill; UPSI, unprotected sexual intercourse.

Traditional POP refers to norethisterone (NET) and levonorgestrel (LNG) type.

DSG POP refers to desogestrel (Cerazette)

Above table was taken from Faculty of Sexual & Reproductive Healthcare (FSRH) - Progestogen-only Pills (August 2022).

See your healthcare provider if you have the following symptoms:

- Pelvic/lower abdominal pain: need to exclude ectopic pregnancy.
- Prolonged or heavy vaginal bleeding. A sudden skipped period, especially after a pattern of regular bleeding cycles: need to exclude pregnancy.
- Yellowish discoloration skin (jaundice), light coloured stools.
- Severe abdominal pain or leg swelling as these could be signs of a blood clots.

Dr Lee Say Fatt
 Consultant Gynaecologist
 Subang Jaya Medical Centre
www.obgyn.com.my
www.obgyn.my