

# Contraception and Sterilisation

[Disclaimer](#)

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## Red Flags

- Migraine with aura

## Background

### About contraception options

- *Many contraceptive methods are available with varying degrees of efficacy, contraindications, suitability, return to fertility, and patient acceptability.*
- *Condoms are the only contraceptive method that protects patients against HIV and other sexually transmitted infections (STIs). Encourage all high-risk patients to use condoms in addition to other methods.*
- *A 2013 study of 2,235 Australians found that:*
  - *40% of those who had ever experienced or partnered a pregnancy, had experienced at least one unintended pregnancy.*
  - *10% of those surveyed used withdrawal as their primary method of contraception, and approximately half used male condoms.*

## Assessment

### 1. Consider:

#### ➤ **life stage.**

### Life stage considerations

- *Adolescents:*
  - *Higher risk of unplanned pregnancy and sexually transmitted infections (STIs)*
  - *All contraceptive methods are suitable including intrauterine devices (IUDs).*
- *Pregnancy planning – consider time frame for returning to fertility. The contraceptive injection (DMPA) can have a delayed return to fertility of up to 18 months.*
- *Post-partum and not breastfeeding – contraception recommended from 21 days postpartum. Combined hormonal contraception suitable if no other risk factors for venous thromboembolism (VTE). Additional risk factors for VTE – immobility, transfusion at delivery, body mass index (BMI) > 30, postpartum haemorrhage, immediately post-CS delivery, pre-eclampsia, relevant family history, or smoking.*
- *Postpartum and breastfeeding:*
  - *Progesterone only contraception (implant or progesterone only pill) can be started immediately postpartum.*
  - *DMPA injections can be used immediately post-partum but WHO does not recommend use < 6 weeks and pregnancy needs excluding of > 21 days post-partum.*
  - *IUD (either copper or LNS (Mirena)) is 99% effective and can be inserted from a minimum of 4 weeks postpartum. There is a slight increased risk of uterine perforation in lactating women under 6 weeks postpartum.*
  - *Combined oral contraceptive pill or vaginal ring can be used from 6 weeks postpartum but may have a detrimental effect on volume of breast milk.*
- *Patients aged > 35 years who smoke – avoid combined hormonal contraceptives (CHC).*

- *Perimenopause – contraception should be continued for 1 year after the last menstrual period if aged ≥ 50 years, or 2 years if aged < 50 years.*
- *need for management of related disorders e.g., acne, polycystic ovary syndrome (PCOS), [heavy menstrual bleeding](#), dysmenorrhea, menstrual migraine, premenstrual syndrome, and perimenopause.*
- ***co-existing medical conditions and contraindications.***

## Coexisting medical conditions

### *Acne:*

- *Combined hormonal contraceptives (CHC) usually improve acne.*
- *Progestogen-based contraceptives may increase acne.*

### *Heavy menstrual bleeding:*

- *CHCs, Mirena IUD, Implanon, and DPMA (Depo) may offer reduced bleeding.*
- *The copper IUD may cause heavier periods in 50% of women.*

### *Diabetes:*

- *Women with diabetes have increased risk of cardiovascular disease.*
- *Do **not** prescribe CHCs for women with diabetes **and** neuropathy, nephropathy, retinopathy, or vascular disease.*

### *Epilepsy:*

- *All hormonal methods are acceptable.*
- *Consider the effect of enzyme-inducing anticonvulsant medication.*

### *Heart disease:*

- *If ischaemic heart disease, stroke, and uncontrolled hypertension, CHCs are contraindicated.*

### *Migraine:*

- *Migraine with aura is a contraindication for prescribing CHC.*

### *Venous thromboembolism (VTE):*

- *CHCs are contraindicated with current or past history of VTE.*

### *Thrombophilia:*

- *CHCs are contraindicated.*

### *Current or previous breast or gynaecological cancer:*

- *If current case of breast cancer: all hormonal methods of contraception are contraindicated.*
- *If endometrial, ovarian, and cervical cancer: CHCs and progestogen contraceptives may be continued.*
- *Remove IUD before starting cancer treatment.*

*For specific medical conditions see Faculty of Sexual and Reproductive Healthcare – [UK Medical Eligibility Criteria 2016 Summary Sheets](#).*

## Contraindications

- *Combined hormonal contraceptives (CHC):*
  - *Acute flare of hepatitis – do not start CHC.*
  - *Breastfeeding ≤ 6 weeks post-partum.*

- Women aged  $\geq 35$  years, who smoke  $\geq 15$  cigarettes per day.
- Blood pressure  $> 160/95$  mmHg.
- Current or past venous thromboembolism (PE or DVT).
- Thrombogenic mutations (Factor V Leiden, prothrombin mutations, protein C & S, or anti-thrombin deficiencies).
- Ischaemic heart disease or stroke.
- Valvular or congenital heart disease with complications e.g., AF, pulmonary hypertension, subacute bacterial endocarditis.
- Migraine with aura at any age.
- Current breast cancer.
- Diabetes with nephropathy, neuropathy, retinopathy, or vascular disease.
- Severe cirrhosis, hepatocellular adenoma, or malignant hepatoma.
- Raynaud disease with lupus anticoagulant.
- Systemic lupus erythematosus (SLE) – due to increased risk of ischaemic heart disease, stroke, and venous thromboembolism.
- Progestogen-only pills:
  - Active breast cancer.
- Copper IUD and Mirena:
  - Septic abortion.
  - Active or malignant trophoblastic disease.
  - Current pelvic inflammatory disease or STI – do not insert a device until treated.
  - Mirena – active breast cancer, SLE with positive antiphospholipid antibodies, liver adenoma or tumour, severe cirrhosis.
  - Copper IUD – SLE with severe thrombocytopenia.

For absolute or relative contraindications and information relating to specific medical conditions, see Faculty of Sexual and Reproductive Healthcare – [UK Medical Eligibility Criteria 2016 Summary Sheets](#).

- current medications which may interfere with contraceptive efficacy if used in combination, in particular lamotrigine, griseofulvin, and **liver enzyme-inducing drugs**. See FSRH – [Drug Interactions Hormonal Contraception](#).

### Patients on liver enzyme-inducing drugs

Liver enzyme-inducing drugs can reduce contraceptive efficacy. It takes 28 days for the effect of liver enzyme-inducing drugs to dissipate even after a single dose. These include:

- Antiepileptics – barbiturates, carbamazepine (strong), oxcarbazepine, phenobarbital, phenytoin (strong), primidone, topiramate ( $> 200$  mg/day), rufinamide, eslicarbazepine
- Antibiotics – rifabutin, rifampicin (very strong)
- Antiretrovirals – nevirapine, nelfinavir, efavirenz (moderate), etravirine (moderate), tipranavir, ritonavir
- Other – St John's wort (strong), bosentan, modafinil, aprepitant, sugammadex

- patient preference – experience of previous contraceptives, compliance factors, cost, convenience (daily versus long-acting "set and forget").
- reproductive life plan – desire for future pregnancies and time frame.
- competency to consent e.g., adolescents or intellectual disability.

2. **Exclude current pregnancy** before starting contraceptive.

### Exclude current pregnancy

*Pregnancy can be reasonably excluded if patient:*

- *is within 5 days of the start of normal menstrual period.*
- *has had no intercourse since the start of last normal menstrual period (LNMP).*
- *is consistently and correctly using a reliable method of contraception.*
- *is within 5 days of a termination of pregnancy or miscarriage.*
- *is within 21 days postpartum.*
- *has a negative urine pregnancy test result (sensitive to a beta hCG level of 25 mIU/mL) and no unprotected sexual intercourse (UPSI) for the past 3 weeks. There may be a false negative test result if UPSI has occurred within 3 weeks.*

*Due to their high failure rate (18%), condoms may not always be considered a reliable contraception method when starting a new form of contraception. Assess the risk case-by-case.*

3. Examination – Measure:

- **blood pressure.**

### Blood pressure check

*For combined hormonal contraceptives (CHCs):*

- *< 140/90 mmHg is ideal.*
- *if > 160/100 mmHg, CHCs are contraindicated.*
- **body mass index (BMI)** – *if  $\geq 35$  advise against CHC and choose an alternative method because of the higher risk of deep vein thrombosis (DVT).*

### Calculate and interpret BMI

- *Individuals with the same BMI may have different ratios of body fat to lean mass.*
- *People with high muscle mass (e.g. athletes) may have a lower proportion of body fat than less muscular people, so a higher BMI threshold can be considered.*
- *Women have more body fat than men at equivalent BMIs.*
- *People lose lean tissue with age so an older person will have more body fat than a younger one at the same BMI.*
- *South Asian, Chinese, and Japanese population groups may have more body fat at lower weights and be at greater risk of ill-health than people from other population groups, so a lower BMI threshold (e.g.  $> 23 \text{ kg/m}^2$ ) may be considered.*
- *Pacific Islander populations (including Torres Strait Islander peoples and Maori) tend to have a higher proportion of lean body mass, so a higher BMI threshold may be considered.*

- Aboriginal peoples have a relatively high limb to trunk ratio, and many have proportionately more body fat deposited centrally, so a lower BMI threshold may be considered. 🇦🇺
- Central deposition of fat and decreased muscle mass with age may lead to no overall change in weight or BMI, but an increase in health risk.

<b>BMI kg/m<sup>2</sup></b> <i>(weight divided by height squared)</i>	<b>Classification</b>
< 18.5	Underweight
18.5 to 24.9	Healthy weight range
25 to 29.9	Overweight
30 to 34.9	Obesity I
35 to 39.9	Obesity II
≥ 40	Obesity III

From NHMRC guidelines.

- Australian Department of Health – [Online Calculator](#).

#### 4. Investigations:

- Ensure [cervical screening](#) is up-to-date.
- Check for sexually transmitted infections (STIs), especially if the patient is at **high risk of STIs**.

### High risk of sexually transmitted infections (STIs)

Includes patients:

- aged < 25 years.
  - who have had a new sexual partner in the last 3 months.
  - with a history of STI in the past 12 months.
  - with genital symptoms e.g., bleeding, discharge, rash.
  - who have a sexual partner with an STI.
- Encourage use of condoms for patients at risk.
  - If active symptomatic STI e.g., chlamydia, gonorrhoea, or pelvic inflammatory disease, delay IUD insertion.

## Management

Long-acting reversible contraceptives (LARCs) are recommended in Australia as a first-line contraceptive choice for all eligible women due to their excellent [efficacy](#) and safety.

1. Discuss method options and failure rates. See [FPAA Efficacy Chart](#).
2. Advise the patient that most contraceptive methods require additional precautions for a period of time if not commenced within five days of the start of a normal menstrual period.
  - Copper IUDs are effective immediately.

- Progestogen-only pills are effective in 48 hours.
  - Combined hormonal contraceptives, etonorgestrol implants (Implanon NXT), and levonorgestrol IUD (Mirena) are effective in 7 days.
3. Refer to individual contraceptive method for more detailed information:
- Emergency contraception
  - Short-acting contraceptives:
    - Combined Hormonal Contraceptives (CHC) including combined oral contraceptive pills (COCP) and Combined Vaginal Ring (NuvaRing).
    - Progestogen-only Pills (POPs)
  - Long-acting reversible contraceptives (LARCs):
    - Contraceptive Implant (Implanon NXT)
    - Contraceptive Injection (DMPA)
    - Intrauterine devices (Mirena)
  - Non-hormonal contraception:
    - Condoms – [female](#) and [male](#)
    - [Diaphragms](#)
    - Copper IUDs
  - Sterilisation (vasectomy, female sterilisation)
  - Contraception post [termination of pregnancy](#)

## Referral

If assistance with contraceptive method is needed, refer to a suitable community-based service when possible.

- Contact **1800 My Options** for referral options.

### 1800 My Options

*1800 My Options is an independent sexual and reproductive health information service, including medical and surgical termination of pregnancy for both public and private services.*

*Patients may call this number and seek information about services directly, or health professionals may call on their behalf. Operators of the service will provide patients with impartial information about services that are most appropriate to them depending on location, gestation, and other social factors.*

- Phone: **1800-696-784**
- [Website](#)

- Consider referring for [urgent or routine gynaecology assessment](#):
  - if missing or lost strings on an intra-uterine device.
  - for tubal ligation.
  - where hormonal contraception is contraindicated.

- where contraception is unable to be managed in primary care due to a complex medical condition (e.g., immunosuppression, breast cancer, multiple sclerosis, physical disability).

## Information

### For health professionals

#### Further information

- Faculty of Sexual and Reproductive Healthcare (FSRH):
  - [CEU Guidance: Drug Interactions with Contraception, Jan 2017](#)
  - [Summary Table – Hormonal and Intrauterine Contraception](#)
- Family Planning Alliance Australia:
  - [Contraceptive Counselling Care](#)
  - [Efficacy of Contraception Methods](#)
- [Family Planning Victoria](#)

### For patients

- Better Health Channel:
  - [Contraception - Choices](#)
  - [Contraception Information Translated into Community Languages](#)
- [Family Planning Victoria](#)
- Health Translations Directory – [Contraception](#)

### References

1. Rowe H, Holton S, Kirkman M, Bayly C, Jordan L, McNamee K, et al. [Prevalence and Distribution of Unintended Pregnancy: The Understanding Fertility Management in Australia National Survey](#). Aust N Z J Public Health. 2016 Apr;40(2):104-9.
2. Sexual Health and Family Planning Australia (SH&FPA). [Time for a change: Increasing the use of long acting reversible contraceptive methods in Australia](#). [place unknown]: Sexual Health and Family Planning Australia (SH&FPA); 2013. p. 1-4.

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