

Contraception

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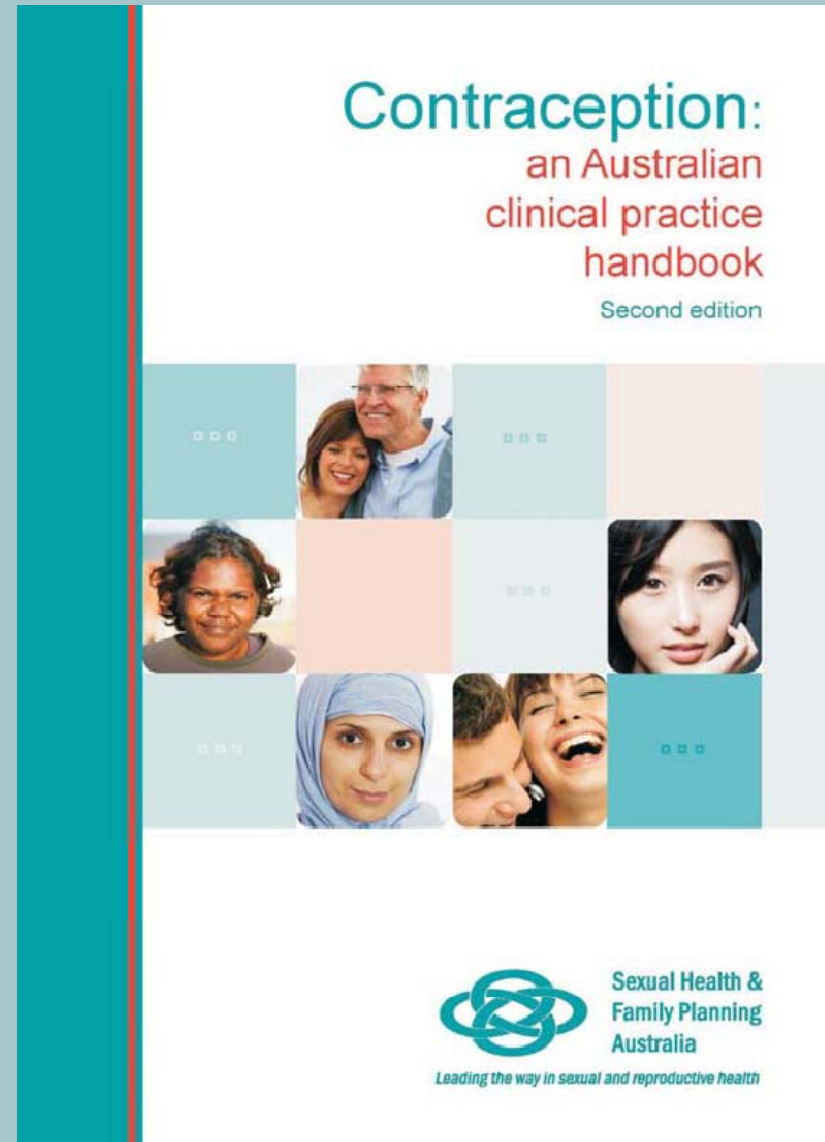
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Contraception: an Australian clinical practice handbook. Second Edition.

Sexual Health & Family Planning Australia, 2008.

Costs \$55 from FPV



Types of contraception available in Australia

Hormonal

Combined

- Oral contraceptive Pill
- Nuva Ring

Progesterone Only

- Mini pill
- Implanon
- IUD – Mirena
- Depo Provera
- Emergency Contraception

Non hormonal

- Condoms
- Female condoms
- Diaphragms
- IUD – Copper
- Natural Family Planning
- LAM
- Withdrawal
- Sterilization



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The Combined Pill

- How it works
 - Inhibits ovulation
 - Thickens cervical mucus
 - Prevents implantation
- How long until it is effective
 - Day 1-5 effective immediately
 - Any other time effective after 7 days
- Efficacy
 - Perfect use 99.7%
 - Typical use 92%
- Cost
 - For HCC \$5.40 for 4 months
 - For everyone else \$6 or more a month



The Pill

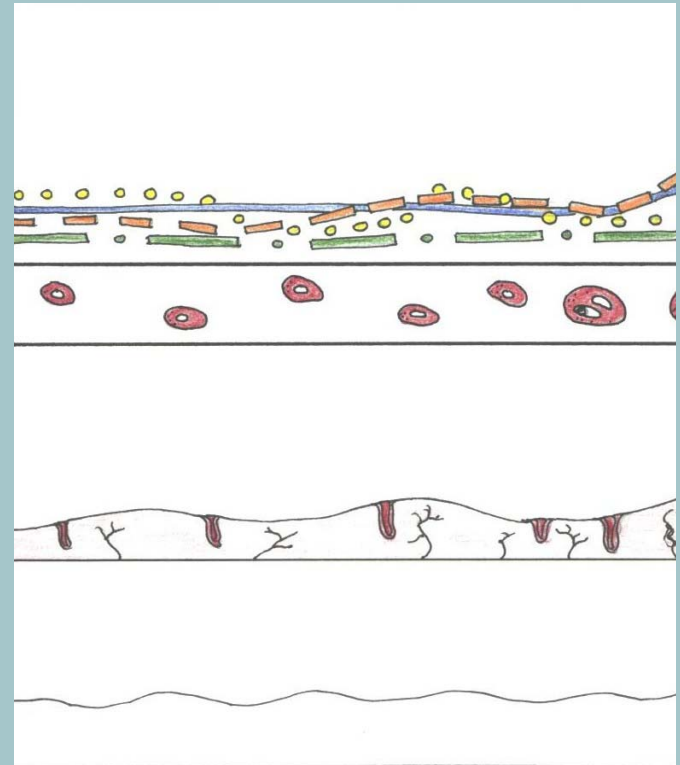
- Advantages
 - Highly effective
 - Easily reversible
 - Predictable bleeding
 - Can improve some hormonal problems eg acne
 - Can tricycle
- Disadvantages
 - Can not be used while breastfeeding
 - Requires motivation and memory
 - Important to remember Missed Pill Rules
 - Hormonal side effects

The Pill

- Contraindications
 - cardiovascular
 - any arterial disease, including AMI, stroke
 - strong risk factors: HT, long standing diabetes,
 - combination of less serious risk factors: smoking, hyperlipidaemia, obesity, age
 - PH of venous thromboembolism (VTE)
 - liver: severe
 - hormone dependent cancer
 - drug interactions
 - numerous relative contraindications

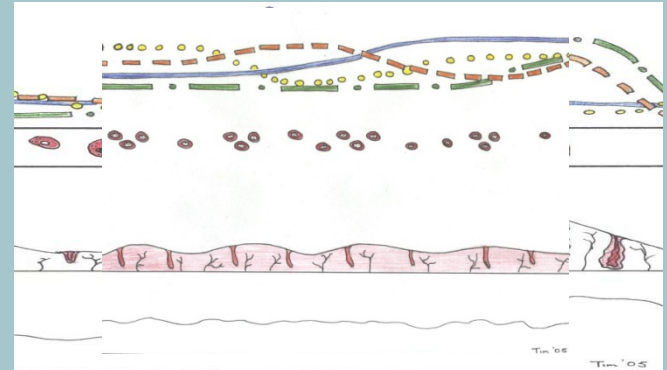
Starting The Pill

- If active combined pills are started on the first day of a normal period no additional protection.

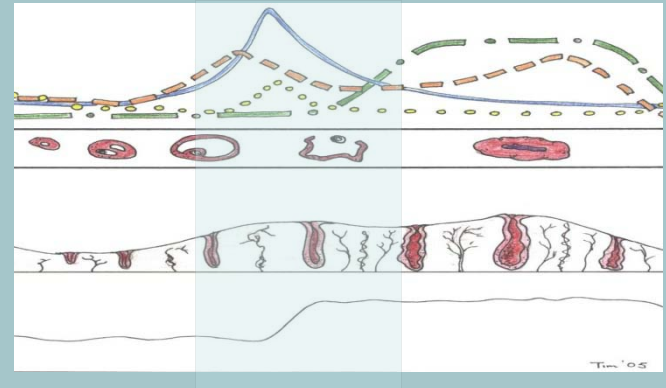


Starting The Pill

- After 7 consecutive hormone combined pills at any time of the cycle ovulation is suppressed, or ovulation has occurred.



Pills started early, ovulation suppressed



Cannot stop ovulation but pass it by the time 7 pills taken

Late pills

If a pill is up to 24 hours late anywhere in the packet

Eg. usual pill time is 8am. Takes pill on time on Monday, forgets Tuesday, wakes up at 7.50am Wednesday.

- **Take the most recent missed pill now**
 - may take two pills on the same day (one at the moment of remembering and the other at the regular time) or even at the same time.
- **Take remaining pills as usual**
- **No additional protection or emergency contraception (EC) required**

Missed pills

Pills is more than 24 hours late

E.g. woman usually takes her pill at 8am. She takes her Monday pill forgets on Tuesday and wakes up at 9am on Wednesday.

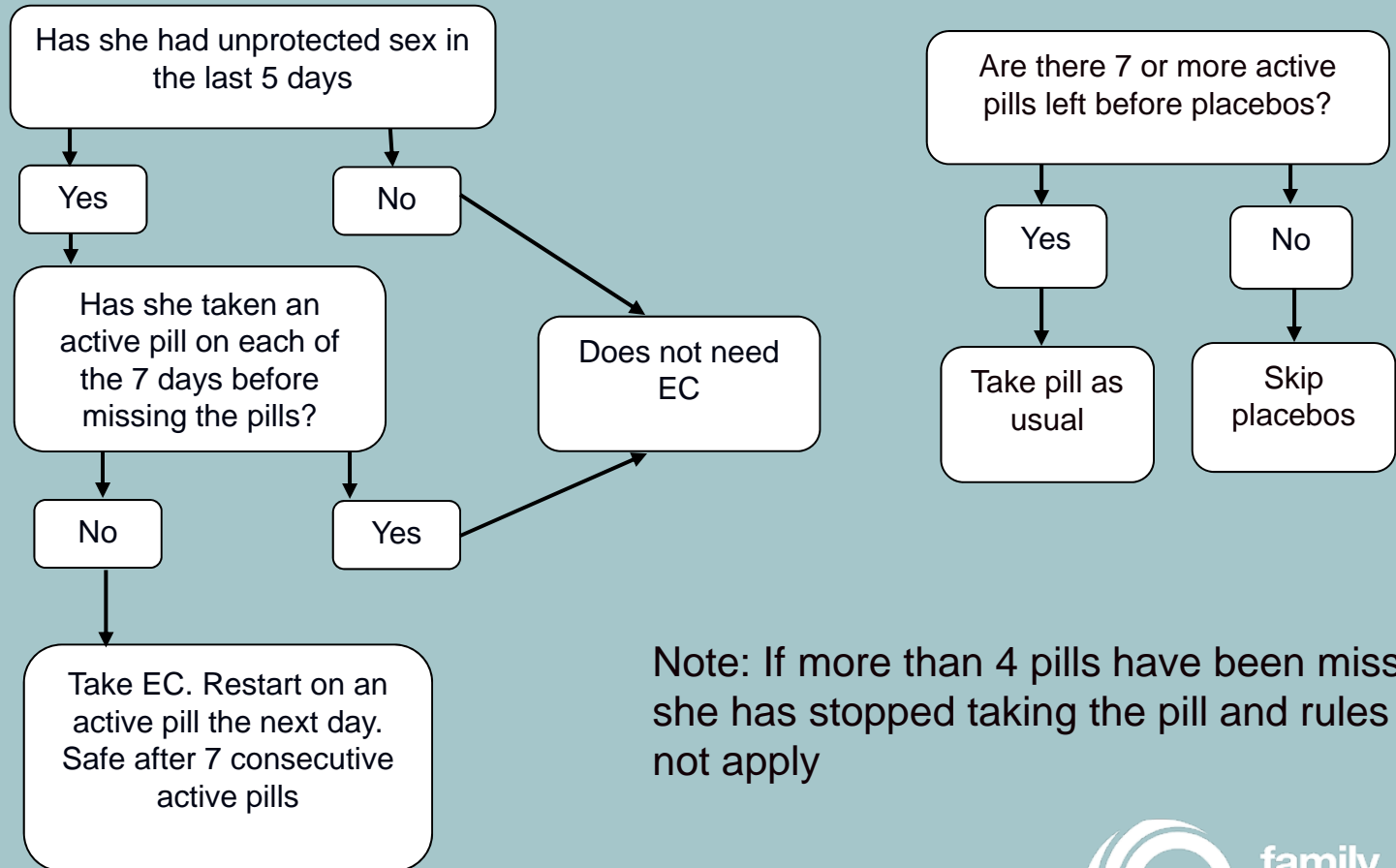
- **Take the most recent missed pill now**
 - she may take two pills on the same day or even at the same time (never more than 2 pills in 1 day)
- **Keep taking the remaining pills**
- **Use condoms until 7 consecutive active pills have been taken**

In addition:

Does she need EC? and

Does she does need to skip placebos?

Summary EC/skipping placebos & missed pills



Note: If more than 4 pills have been missed, she has stopped taking the pill and rules do not apply



- Take the most recent missed pill now
- Keep taking the remaining pills
- Use condoms until 7 consecutive active pills have been taken
- And if in:
 - Week 1 - Take emergency contraception
 - Week 2 - Just continue taking the pills
 - Week 3 – Skip the placebo

Which pill?

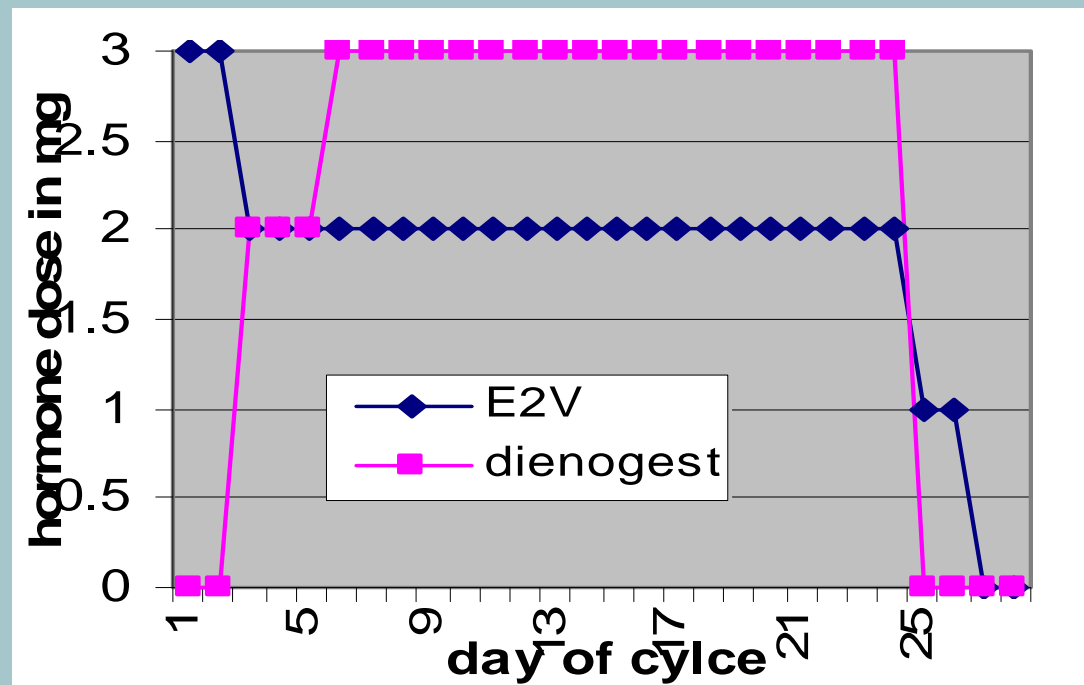
- More similarities between pills than differences
- Cost:
 - Pharmaceutical Benefits Scheme (PBS) - \$33.30
 - Health Care Card holders (HCC) - \$5.40
 - non PBS up to ≈\$25 per month regardless of HCC
- Higher than standard risk of DVT:
 - desogestrel (Marvelon),
 - gestodene (Minulet, Femoden, Tri-Minulet),
 - cyproterone acetate (Diane, Juliet, Estelle and Brenda)
- Lower dose: less general side effects, less effect on insulin resistance, but more break through bleeding (Loette, Microgynon 20)
- Indicated for acne (Valette, Yas, Loette)
- Indicated for PMDD (Yas)

Other pill issues

- Age of initiation
 - no lower limit: based on individual situation
- Running pill packets together
 - theoretical concern of higher dose than needed, but no set time limit
- Taking a break
 - not recommended
- Stopping the pill at menopause
 - mask symptoms
 - change to progestogen only pill or condoms

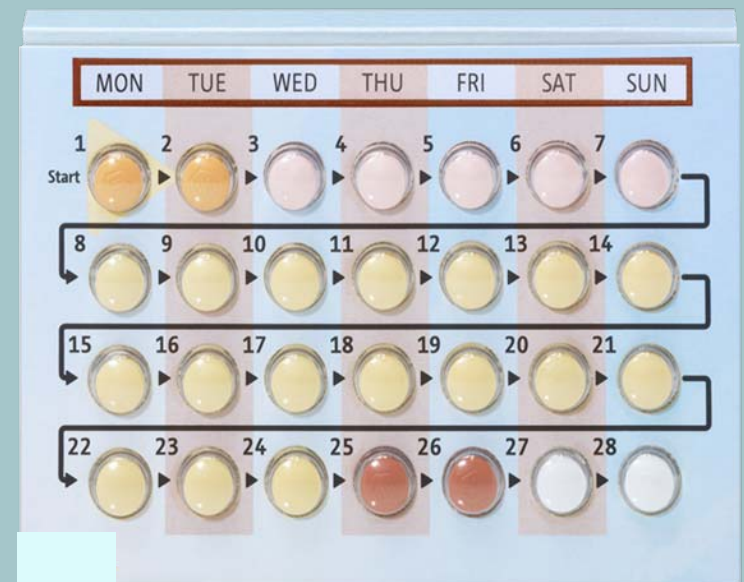
Qlaira

- New pills: “natural” oestrogen
- 26 days of various levels of oestradiol valerate (E2V), and dienogest (Qlaira®)
- natural oestrogen
 - less metabolic impact
 - o ?fewer DVTs



Qlaira

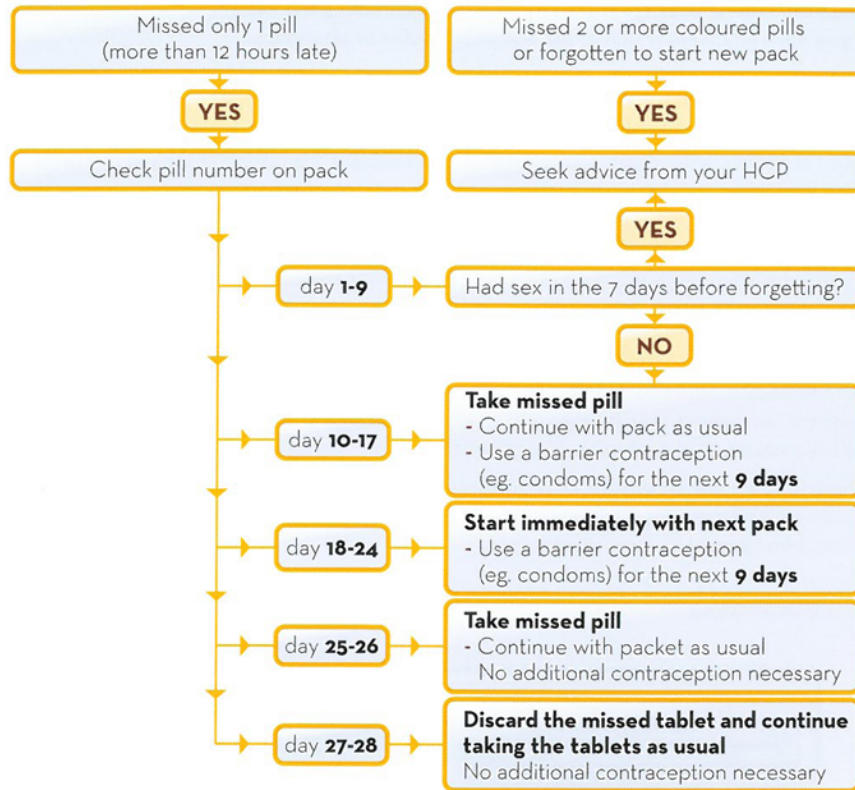
- no oestrogen withdrawal
- compared to a 20mcg EE and levonorgestrel pill¹
 - similar continuation rate and satisfaction over 7 months
 - similar intracyclic bleeding
 - higher absence of withdrawal bleed
 - lighter and shorter withdrawal on self assessment
- may have indication for menorrhagia
- no long term studies



1. Ahrendt HJ, et al. Contraception. 2009 Nov;80(5):436-44.

Missed Pill Advice (more than 12 hours late)

(Also printed on the Qlaira® wallet)



If you are less than 12 hours late in taking a tablet, the reliability of the Pill is maintained. Take the tablet as soon as you remember and take the next tablet at the usual time.

Qlaira®

oestradiol valerate / dienogest



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The Mini Pill

- How it works
 - Cervical mucus increased viscosity & impenetrable to sperm
 - Variable effect on ovulation
 - Variable endometrial effect
 - Some effect on tubal motility
- How long until it is effective
 - After 3 pills (48 hours)
- Efficacy
 - Perfect use 99.7%
 - Typical use 92%
- The mini pill is a 28 day pill packet with no break of placebo

The Mini Pill

- Advantages
 - Oral alternative with less side effects
 - Low dose hormone method
- Disadvantages
 - Unpredictable bleeding patterns
 - Vulnerable efficacy
 - Specific time restrictions
- Cost
 - Approx \$6 per month

Contraindications

- Breast cancer within the last 5 years
- Develops a stroke, MCI or migraine with aura while using the method
- Severe liver disease
- Liver enzyme inducing drugs
- Multiple less serious contraindications

Emergency Contraception

(The morning after pill)

- For use after unprotected sexual intercourse
- How it works
 - Prevent or delay ovulation
 - Induce transient changes in endometrium
- Efficacy
 - Prevents 85% of pregnancy that would of otherwise occurred.
 - Must be taken within 120 hours from unprotected intercourse but is more effective the earlier it is taken
- Cost
 - Varies
 - Can be up to \$50
 - At FPV \$15 or \$10 for student or HCC. If they don't have money we will assist them.

Emergency contraception

- Advantages
 - Now available at pharmacies
 - Good as a backup when using barrier methods
- Disadvantages
 - Not recommended as long term form of contraception
 - Not as effective as other forms of contraction
 - 16% of women have non-menstrual bleeding within 1 week of taking EC

Implanon

- An implant in the upper arm for 3 years
- How it works
 - Prevents ovulation and implantation
 - Thickens the cervical mucus
- How long until it is effective
 - Day 1-5 effective immediately
 - Any other time effective after 7 days
- Efficacy
 - Perfect use >99.9%
 - Typical use 99.9%
- Cost
 - \$33.30 or \$5.40 for script
 - \$12 for insertion at FPV. More at other clinics



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Implanon

- Advantages
 - Effective, long acting, reversible
 - Cost effective
 - Can have less side effects
- Disadvantages
 - Procedure required for insertion and removal by trained health professional
 - Irregular bleeding
 - Hormonal changes eg low libido, acne, breast tenderness



Implanon

- Contraindications
 - breast cancer within the last 5 years
 - develops a stroke, MCI or migraine with aura while using the method
 - severe liver disease
 - liver enzyme inducing drugs
 - current VTE
 - multiple less serious contraindications

Depo Provera

- An injection every 12-14 weeks
- How it works
 - Prevents ovulation
 - Prevents implantation
 - Thickens cervical mucus
- How long until it is effective
 - Day 1-5 effective immediately
 - Any other time effective after 7 days
- Efficacy
 - Perfect use 99.7%
 - Typical use 97%



Depo Provera

- Advantages
 - 50% of women have amenorrhea in 12 months
 - Long acting
 - Private
 - Highly effective long acting
- Disadvantages
 - May delay fertility by up to 18 months
 - Reduction in bone density
 - Side effects
- Cost
 - \$15 per injection so \$5 a month

Contraindication

- breast cancer in last 5 years
- multiple risk factors for cardiovascular disease
- current VTE
- PH of arterial disease; stroke, MCI other arterial
- diabetes > 20 years or with vascular complications
- severe liver disease

Vaginal ring

- How it works
 - inhibits ovulation
 - Thickens cervical mucus
 - Prevents implantation
- How long until it is effective
 - Day 1-5 effective immediately
 - Any other time effective after 7 days
- Efficacy
 - Perfect use 99.7%
 - Typical use 92%
- Cost
 - \$73 or more 3 months at pharmacies
 - \$20 per month at FPV

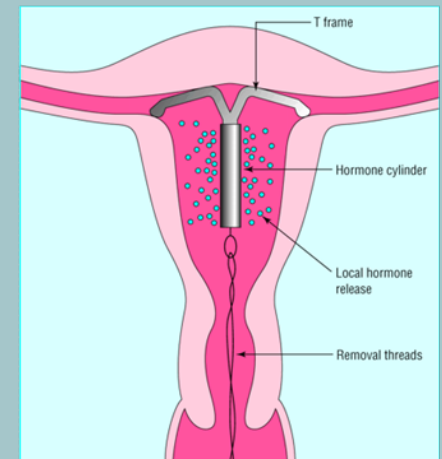


Nuva Ring

- Advantages
 - Lower dose than The Pill
 - Controls bleeding well
 - Only needs to be changed once a month
- Disadvantages
 - Cost
 - Insertion and removal of the ring can be unacceptable to some women
 - Important to remember to replace the ring on Day 7
- Contraindications
 - should be treated in the same way as the combined oral contraceptive with regard to suitability of use in women with other medical conditions.

IUD Mirena

- How it works
 - Thickened cervical mucus
 - Thinning of the endometrium- less suitable for implantation
 - Prevention or delay of ovulation
- How long until it is effective
 - Day 1-5 effective immediately
 - Any other time effective after 7 days
- Efficacy
 - 99% (for all IUDs)
- Cost
 - \$33.30 for device on PBS or \$5.40 with HCC
 - \$22.00 insertion fee at FPV



Mirena

- Advantages
 - Long term up to 5 years
 - Highly effective but rapidly reversible
- Disadvantages
 - Invasive medical procedure by qualified practitioner
 - Procedure risks eg. Infection, perforation
 - Irregular bleeding
- Contraindications
 - Breast cancer
 - Recent STI, pelvic infection or at risk of STI
 - Uterine abnormalities
 - Current VTE
 - Develops a stroke, MCI or migraine with aura while using the method
 - Severe liver disease
 - Multiple less serious contraindications

IUD - Copper

- How it works
 - local inflammatory reaction
 - copper is toxic to sperm and fertilized eggs
 - Implantation inhibited
- How long until it is effective
 - Immediately
- Efficacy
 - 99%
- Cost
 - \$94 for device and insertion at FPV
- Advantages
 - Long term up to 10 years
 - Highly effective but rapidly reversible
 - Non hormonal

Copper IUD

- Disadvantages
 - Invasive medical procedure by qualified practitioner
 - Procedure risks eg. Infection, perforation
 - Irregular bleeding
 - Increase in bleeding and pain associated with menstruation
- Contraindications
 - recent STI, pelvic infection or at risk of STI
 - uterine abnormalities
 - note: if there is a PH of dysmenorrhoea, endometriosis, menorrhagia or anemia a Mirena™ is preferred.

FPV's IUD research

- Poster presentation at Sexual Health Conference 2009 in Brisbane
- FPV performed a retrospective file review of 100 consecutive women April 2008 and June 2009.
- Each woman was seen by the same highly experienced practitioner with more than 20 years' experience in IUD insertion.

Experience of IUD insertion in an urban family planning clinic

McNamee K^{1,2}, Inness C¹, Cook M¹, Lean G¹

1. Family Planning Victoria, Box Hill, VIC, Australia

2. Department of Obstetrics and Gynaecology, Monash University, Clayton, VIC, Australia

Background

The most recent published data on intrauterine device (IUD) use in Australia was the Sex in Australia Survey, completed in 2002. In this representative sample of 6276 women at risk of pregnancy, IUD use was low and accounted for 1.2% of contraception use, compared with 33.6% for the contraceptive pill.¹ This contrasts with world wide use, where IUDs are the commonest form of reversible contraception.² However, IUD use has increased since 2002, with the inclusion of the levonorgestrel IUD (Mirena®) in the Pharmaceutical Benefits Scheme (PBS) in 2003. Claims for the purchase of levonorgestrel IUD spiked between 2003 and 2006.³

Method

We performed a retrospective file review of 100 consecutive women who presented to Family Planning Victoria (FPV) for IUD insertion between 17 April 2008 and 20 June 2009. FPV is an urban primary care sexual and reproductive health service. Each woman was seen by the same highly experienced practitioner with more than 20 years' experience in IUD insertion. Files were examined for age, pregnancies and their outcomes, success of insertion, use of para cervical block and dilation.

Results

The average age of the women was 37.9 ± .7 years. Of the 100 attempted insertions, 60 were with a levonorgestrel IUD (Mirena®) and 40 were copper (T380® or Multiload®). Choice of IUD did not significantly differ by age, parity, gravidity or type of delivery.

There were 94 successful insertions (table 1). There was no significant difference in the odds of insertion when comparing any of the groups in relation to parity, gravidity, or delivery type. There were no differences in failure to insert rates between the two types of IUDs as five of the six non insertions were abandoned due to difficulty with sounding. The only device related non insertion occurred with an LNG IUD; here the uterus was successfully sounded and the IUD inserted with ease, but the stem of the IUD was visible in the canal and the woman was unable to tolerate a repeat insertion.

There were 18 attempted insertions in women who had never had a vaginal delivery. Of these, nine were nulliparous and all had a successful insertion, including five nulligravids. Of the remaining nine women who had only had caesarian deliveries, seven had successful insertions.

The main difference among the groups was that women who had never had a vaginal delivery had a higher chance of needing a para cervical block + dilation for insertion. Of the 18 women who had never had a vaginal delivery, a para cervical block + dilation was needed in three of the five nulligravids; two of the nine who had caesarian births only and none of the four who had been pregnant without giving birth.

There was approximately a 10 fold increase in the odds of women who had never had a vaginal delivery (odds ratio 10.12, 95% CI: 2.16, 47.57) needing a para cervical block compared to women who had ever had a vaginal delivery. This increased to almost 40 fold when women who had never been pregnant were compared to women who had had a vaginal delivery (odds ratio 39.6, 95% CI: 4.70, 331.87).

Conclusion

Women have a high chance of successful IUD insertion. Women who had a vaginal delivery were least likely to need a para cervical block or dilation for insertion. All nulliparous women in this analysis had a successful insertion, however, as numbers were small, the sample may not be representative.

¹Heister L, Grubb AC, de Visser HJ, Smith AM, Sheredis CE. Sex in Australia: contraceptive practices among a representative sample of women. Aust N Z J Public Health 2003;27:215-21.
²World Commission on 2002. United Nations Population Division. Department of Economic and Social Affairs. 2003.
³Medicare Australia. Medicare (2007/08). at <http://www.medicare.gov.au/medicare/medicare/medicare.asp>

Table 1: Ability to insert IUD, para cervical block and dilation by parity, gravidity and type of delivery

		IUD Inserted	Number	%	95% confidence interval	Para cervical block	Dilation	
Parous	Total	Yes	85	93.41	0.86, 0.98	3	3	
		No	6	6.59	0.02, 0.14	2	2	
	Vaginal delivery ever	Yes	78	95.12	0.88, 0.99	2	2	
		No	4	4.88	0.01, 0.12	1	1	
		Caesarean only	Yes	7	77.78	0.40, 0.97	1	1
			No	2	22.22	0.03, 0.60	1	1
Nulliparous	Total	Yes	9	100.00	0.66, 1.00	3	1	
		No	0	0.00	0.00, 0.34	NA	NA	
	Ever pregnant	Yes	4	100.00	0.40, 1.00	0	0	
		No	0	0.00	0.00, 0.60	NA	NA	
		Never pregnant	Yes	5	100.00	0.48, 1.00	3	1
			No	0	0.00	0.00, 0.62	NA	NA

Table1: Ability to insert IUD, paracervical block and dilation by parity, gravidity and type of delivery

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	Vaginal Delivery ever	Yes	78	95.12	0.88, 0.99	2	2
		No	4	4.88	0.01, 0.12	1	1
	Caesarea only	Yes	7	77.78	0.40, 0.97	1	1
		No	2	22.22	0.03, 0.60	1	1
Nulli-parous	total	Yes	9	100	0.66, 1.00	3	1
		No	0	0	0.00, 0.34	NA	NA
	Ever pregnant	Yes	4	100	0.40, 1.00	0	0
		No	0	0	0.00, 0.60	NA	NA
	Never pregnant	Yes	5	100	0.48, 1.00	3	1
		No	0	0	0.00, 0.52	NA	NA

Condoms

- How it works
 - Barrier method
- Efficacy
 - Perfect use 98%
 - Typical use 85%
- Advantages
 - Non hormonal so can be used by most at anytime
 - Readily available without prescription
 - Protect against STI and pregnancy
- Disadvantages
 - High degree of motivation
 - Efficacy
 - Safe disposal must be considered
- Cost
 - Free at FPV or a community health centre
 - \$6 up for a packet



Dental Dams



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Diaphragm

- How it works
 - Rubber cap covering cervix providing a barrier
- How long until it is effective
 - You can keep them for 18 months, +/- 5kg or a pregnancy
- Efficacy
 - Perfect use 94%
 - Typical use 84%
 - Recommended to be used with spermicide
- Cost
 - \$68 at FPV for diaphragm and fitting



Diaphragm

- Advantages
 - Non hormonal
 - Can be used intermittently
 - Can be used during menstruation
 - Can be inserted many hours before sex
- Disadvantages
 - Self insertion can be unacceptable for some women
 - Efficacy
 - High level of motivation required
 - Can decrease spontaneity
- Contraindications
 - History of toxic shock syndrome
 - Latex allergy
 - Risk of HIV, HIV infection or AIDS

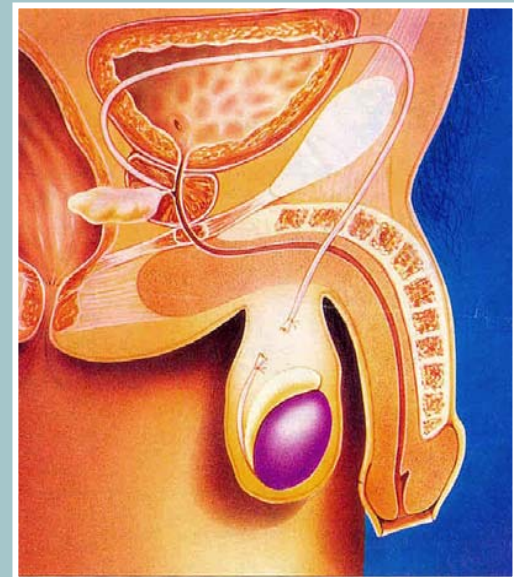
Female Sterilisation

- How it works
 - Blocking or dividing the Fallopian tubes to interrupt movement of egg/ovum
- Efficacy
 - Tubal occlusion with Filschie clip > 99.9%
 - Tubal occlusion with Essure 99.5%
- Advantages
 - Permanent
 - No systemic effect or altered sexual function
- Disadvantages
 - Risk of procedure
 - Not reversible



Male Sterilisation

- How it works
 - Cutting vasa deferentia to prevent sperm entering ejaculation
- Efficacy
 - 99.85% - 99.9%
- Advantages
 - Permanent
 - No systemic effect or altered sexual function
- Disadvantages
 - Risk of procedure
 - Not reversible



The Quick Guide and Contraception Kit



FPV contraception and sexual health brochures

