Family planning and contraception

By:

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Broad Objective

- By the end of this session the trainees will be able to effectively discuss methods of family planning.

Specific Objectives

1. To **define** family planning and contraception.

2. To **describe the various types** of family planning methods.
   - What it is?
   - MOA
   - Effectiveness
   - Advantages
   - Disadvantages
   - MEC
   - Client instructions
   - S/E, complication
   - Common medical barriers to service provision
   - Management of S/E and complications

Introduction

- **Family planning is defined as** a basic human right for an individual/couple to exercise control over their fertility, make informed and voluntary decision on the number of children they want to have, when to have the first and last pregnancy and the space between pregnancies.

- **Contraception is defined as :** The process through which family planning methods are provided to prevent pregnancy.

WHO Eligibility Criteria for Contraceptive Use

Category	Description	When clinical judgment is available	When clinical judgment is limited
1	No restriction for use	Use the method under any circumstances	Use the method
2	Benefits generally outweigh risks	Generally use the method with care	
3	Risks generally outweigh benefits	Method should not be used unless clinician makes judgement that method can be used safely	Do not use the method
4	Unacceptable health risk	Method not to be used	

Source: WHO, 2004.

Family planning methods

I. Natural methods(fertility awareness)

- Abstinence
- Calendar based methods (moon beads)
- Billing' s Method(Cervical mucus)
- Basal body temperature (BBT)
- Symptothermal(BBT+Cervical Mucus Method + Other fertility signs)
- Withdrawal

II. Lactational amenorrhea method (LAM)

Family planning methods

III. Hormonal method

a) Oral contraceptives – combined, progestin only, ECP
b) Injectables- Progestin only, Combined
c) Contraceptive patches
d) Vaginal rings
e) Implants- Jadelle, Implanon

Family planning methods

iv. Intrauterine devices

a) Copper T

b) Nova T

c) Multi load

d) Hormone releasing (Mirena)

e) Plain (Lippes loop)

Family planning methods

v. Barrier methods

a) Male condom

b) Female condom

c) Diaphragm

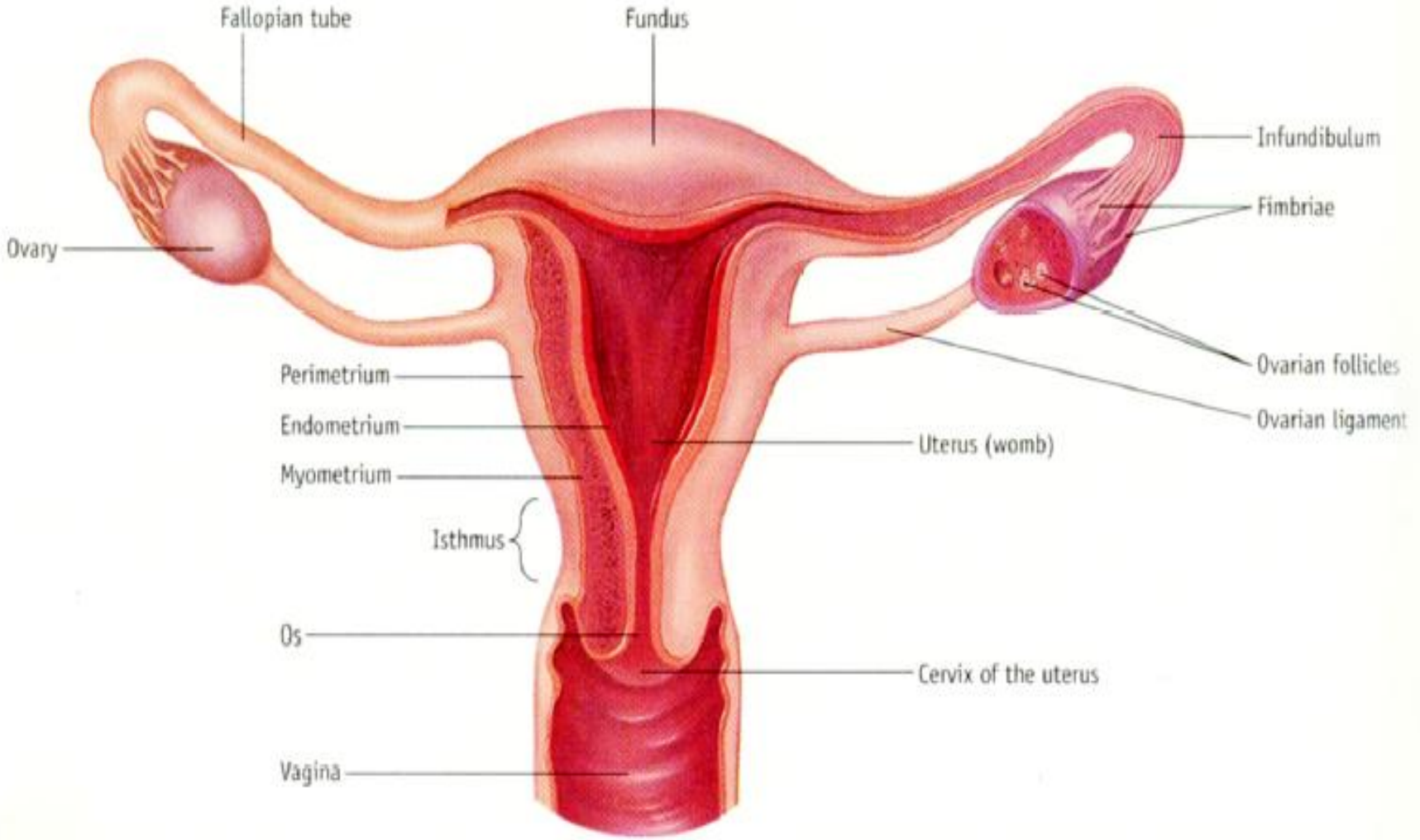
d) Cervical cap

e) Spermicides

N.B: c, d, and e above not in use

Vi. Voluntary surgical contraception- BTL, Vasectomy

Anterior View of RH system



Lactational Amenorrhea Method (LAM)

- Temporary method of FP based on lack of ovulation resulting from exclusive breastfeeding.
- Used during first 6 months **post partum only** when fertility is low and infant is fed exclusively on breast milk
- 98% effective if used correctly

LAM is defined by **three** criteria:

- Woman's menses have not resumed **and**
- Baby is exclusively breastfed **and**
- Baby is less than 6 months old

If the above three are **not met**, use another FP method

LAM: Advantages

- Protection against pregnancy as long as three LAM criteria are met
- Does not interfere with sexual activity
- Affordable-no direct cost for FP
- Counseling for LAAM encourages starting on a follow on method at the proper time
- No systemic side effects
- No medical supervision necessary

LAM: non-contraceptive benefits

- For infant:
  - Passive immunization and protection from other infectious diseases
  - Best source of nutrition
  - Decreased exposure to contaminants in water, other milk or formulas, or on utensils
- For mother:
  - Decreased postpartum bleeding
  - Postpartum Uterine involution is facilitated
  - Maternal bonding with the baby

LAM: Limitations

- Effective only if the three criteria are met.

Reasons that can make a mother not breastfeed;

1. Breastfeeding can transmit HIV from mother to baby (higher risk with mixed feeding)
2. If woman is taking certain drugs e.g. mood altering drugs, radio active drugs, reserpine, etc)
3. Exclusive breastfeeding may be difficult or inconvenient for working mothers
4. The newborn who has a condition that makes it difficult to breastfeed e.g. preterm, cleft lip and palate

- Does not protect against STIs (e.g., HBV, HIV, HPV)

Medical eligibility Criteria for LAM

- Women whose babies are less than 6 months
- Exclusively breastfeeding mother
- Amenorrhoeic

Note:

- Counsel woman in advance about future contraceptive options and to initiate another method as soon as;
- Menstruation begins
- Baby is about to turn 6 months
- Supplementary feeding begins

LAM WHO MEC Category 4

- Women who are not breastfeeding at least nearly full.
- Women with resumed menses.
- Where the baby is more than 6 months old.
- Couple who want highly effective protection against pregnancy where the woman has conditions that makes pregnancy dangerous.
- Whose baby breastfeeds irregularly or longer than 6 hrly interval and sleeps throughout the night
- Mothers breast milk flow is reduced for any reason

LAM: client instructions on breastfeeding

- Breastfeed from both breasts on demand (about 6-10 times per day)
- Breastfeed at least once during night (no more than 6 hours should pass between any two feedings)
- Do not substitute other food or liquids for breast milk meal
- If baby does not want to breastfeed 6-10 times per day or baby chooses to sleep through the night, LAM will be less effective as a contraceptive method
- Once you substitute other food or drink for breastfeeding meals, the baby will suckle less, and LAM will no longer be an effective contraceptive method

LAM: client instructions for contraception

- Always keep a backup method of contraception, such as condoms, readily available. Use it if:
  - your menses returns
  - you begin supplementing your baby's diet
  - your baby reaches 6 months of age
- Consult your healthcare provider or clinic before starting another contraceptive method
- If you or your partner is at high risk for STIs, including the HIV, you should use condoms as well as LAM.

Hormonal contraceptive methods

- Methods containing synthetic hormones (estrogen, progestin or a combination of both hormones) similar to natural hormones in a woman's body.
- Mainly prevent ovulation or make cervical mucus too thick for sperm penetration
- Do not protect against STIs including HIV and Hepatitis B. Dual protection is recommended

Classification of hormonal contraceptives

1. Oral contraceptives
    a) Combined oral contraceptives (COC)
    b) Progestin only pill (POP)
2. Injectable Contraceptives
    a) Combined injectable
    b) Progestin only
3. Implants
    a) Jadelle
    b) Implanon
4. Contraceptive patches
5. Vaginal rings
6. Hormone releasing intrauterine contraceptive device

Combined oral contraceptive pills (COCs)

- Pills containing synthetic estrogen and progestin similar to the natural hormones in a woman's body. The amount of constituent hormones varies in different preparations.

Types of COCs

- Packets of 21 or 28 tablets. In 28 pill packet only first 21 contain hormones, rest contain iron

Low dose pills available in three types

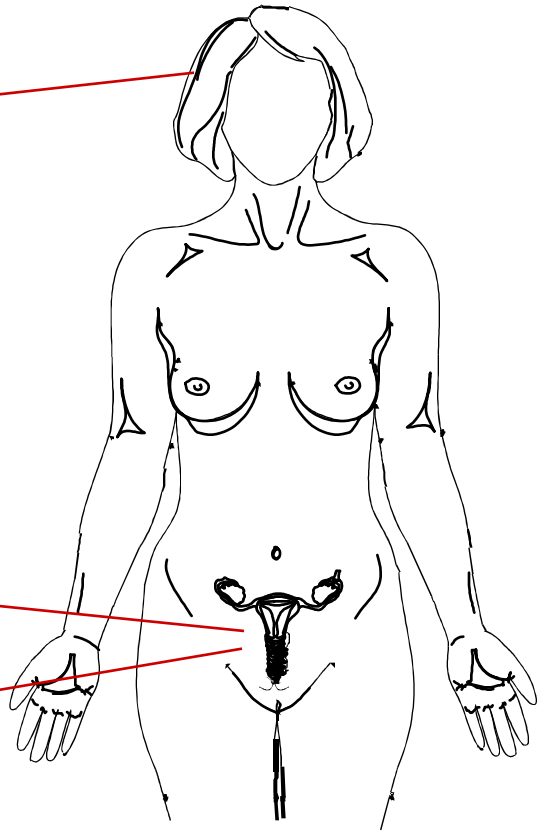
- **Monophasic**-Each active pill contains same amount of oestrogen and progestin e.g. microgynon, Nordette, Marvelon
- **Biphasic**-Active pills contain two different dose combinations of oestrogen and progestin. E.g. 21 cycle-10 may contain one combination, 11 another e.g. Ovanon, Normovlar
- **Triphasic**-active pills contain three different dose combinations of oestrogen and progestin e.g. 21 cycle-6 one combination, 5 another and 110 a different combination. E.g. Logynon, Trinordial, Trigestrel, Triquillar

COCs: Mechanisms of action

Surpress ovulation

Change endometrium making implantation less likely(reduces receptivity of endometrium to blastocyst)

Thicken cervical mucus (preventing sperm penetration)



COCs: Contraceptive benefits

- If taken consistently and correctly they are 99% effective
- Highly effective when taken daily
- Effective immediately if started by day 7 of menstrual cycle
- Do not need pelvic examination
- Do not interfere with sexual intercourse
- Few side effects
- Convenient and easy to use
- Can be provided by trained non-medical staff

COCs: Non-contraceptive benefits

- Reduce menstrual flow (lighter, shorter periods)
- Decrease dysmenorrhoea (menstrual cramps)
- Improve and prevent anemia
- Protect against ovarian and endometrial cancer
- Decrease benign breast disease and ovarian cysts
- Prevent ectopic pregnancy
- Protect against PID

COCs: Menstrual blood loss and anemia

- Decrease menstrual blood loss (20 ml versus 35 ml)
- Prevent iron deficiency anemia (50%)
- Improve existing iron deficiency anemia

Decreased ovarian cancer risk

- 40-80% decrease in risk compared to non-users
- Protection:
  - Begins by 1 year of use
  - Increases with duration of use
  - Persists at least 10-15 years after COCs are stopped

COCs and breast cancer

- There is no overall measurable increase of breast cancer risk except possibly among younger women
- Breast cancer at a young age represents a very small proportion of all cases and may represent acceleration of pre-existing breast cancer or detection bias
- COC use may provide protection against postmenopausal breast cancer.

COCs: Disadvantages

- User-dependent (require continued motivation and daily use)
- Some nausea, dizziness, mild breast tenderness, headaches or spotting may occur
- Effectiveness may be lowered when certain drugs are taken
- Forgetfulness increases method failure
- Can delay return to fertility
- Rare serious side effects possible
- Re-supply must be readily and easily available
- Do not protect against STIs (HBV, HIV and AIDS)

Medical eligibility criterion for COCs

Women:

- Of any reproductive age or parity who want highly effective protection against pregnancy
- Who are breastfeeding (6 months or more postpartum)
- Who are postpartum and are not breastfeeding (begin after third week)
- Who are post abortion (start immediately or within 7 days)

Medical eligibility criterion for COCs *continued*

Women:

- With anemia
- With severe menstrual cramping
- With irregular menstrual cycles
- With a history of ectopic pregnancy
- In need of emergency contraception

NB: Women who cannot remember to take a pill every day require additional counseling

COCs: Should generally not be used (WHO Class 3)

- Smoking up to 15 cigarettes daily in women aged 15 years or more
- Raised blood pressure (systolic 140-159 or diastolic 90-99 mmHG)
- History of hypertension (where blood pressure cannot be evaluated) or controlled hypertension
- Known hyperlipidaemia
- Migraine without aura in a woman aged 35 years or more
- Less than 21 days postpartum
- Breastfeeding from 6 weeks to less than 6 months postpartum
- History of breast cancer with no evidence of disease for the last 5 years
- Symptomatic gall bladder disease
- Drug treatment affecting liver enzymes: rifampicin and certain anticonvulsants

COCs: Who Should Not Use (WHO MEC Class 4)

Should not be used in women who;

- Breastfeeding and < 6 weeks postpartum
- Current or history of ischemic heart disease
- Smoking 15 or more cigarettes daily in women aged 35 years and more
- Raised blood pressure (systolic $\geq$ 160 or diastolic $\geq$ 100 mmHg)
- Hypertension with vascular disease
- Migraine with aura

COCs: Who should Not Use (WHO MEC Class 4) *continued*

COCs should not be used in the presence of:

- Diabetes (> 20 years duration)
- Past or present evidence of DVT/PE
- Major surgery with prolonged immobilization
- Known thrombogenic mutations
- Complicated valvular heart disease
- Breast cancer within the past 5 years
- Active viral hepatitis
- Benign or malignant liver tumour
- Severe (decompensated) cirrhosis

COCs: When to start

- Anytime you are reasonably sure the client is not pregnant
- Days 1 to 5 of the menstrual cycle
- Beyond the 5th day of menstrual cycle, be certain client is not pregnant and advise additional contraceptive protection for next 7 days
- Postpartum:
  - after 6 months if using LAM (recommend POP which can be started after the sixth week)
  - after 3 weeks if not breastfeeding
- Post abortion (immediately or within 7 days)

COCs: Common side effects

- Amenorrhea
- High blood pressure
- Nausea/vomiting (first 3 months)
- Bleeding/spotting between menses
- Acne
- Breast fullness or tenderness (mastalgia)
- Slight weight gain
- Mild headaches

COCs: Client instructions

- Take 1 pill each day, preferably at same time of day.
- Take first pill on first to fifth day (first day preferred) after beginning of your menstrual period.
- Some pill packs have 28 pills. Others have 21 pills. When 28-day pack is empty, immediately start taking pills from a new pack. When 21-day pack is empty, wait 7 days and begin taking pills from new pack.
- If you vomit within 30 minutes of taking pill, take another pill.

COCs: Client Instructions *continued*

With missed pills:

- If you forget to take 1-2 pills, take it as soon as you remember, take the next pill at the usual time, even if it means taking 2 pills on one day. Keep taking active pills as usual.
- If you forget to take 3 or more pills, take the pill as soon as possible and continue taking pills daily, one each day. Use a backup method (e.g., condoms) or do not have sex for 7 days until pills have been taken for 7 days in a row.
- If you miss 2 or more menstrual periods, you should go to the clinic to check to see if you are pregnant.

COCs: General information

- Some nausea, dizziness, mild breast tenderness and headaches as well as spotting or light bleeding are common during menstrual cycle (usually disappear within 2 or 3 cycles)
- Certain drugs (rifampin and most anti-epilepsy) may reduce effectiveness of COCs. Tell your provider if you start any new drugs.
- Use a condom if at risk for STIs (ex: HBV, HIV and AIDS).

COCs: Warning signs

- Contact healthcare provider or clinic if you develop any of the following problems:
  - Severe abdominal pain
  - Severe chest pain or shortness of breath
  - Severe headaches
  - Blurred vision
  - Severe leg pain
  - Absence of any bleeding or spotting during pill-free week (21-day pack) or while taking 7 inactive pills (28-day pack) may be a sign of pregnancy

COCs: Common medical barriers to service delivery

- Inappropriate contraindications (thyroid disease, fibroids, diabetes, etc.)
- Age restrictions (young and old)
- Parity criteria (less than two living children)
- Who can provide (physicians or nurses only)
- Number of pill packets given (less than three)
- Process hurdles (lab tests, pelvic exams)
- Provider bias (does not recommend, need for "rest period")
- Follow-up restrictions (BP required each visit)

Progestin only pills (POPs)

What are they?

- These are pills that have synthetic progesterone similar to the natural hormones in a woman's body.

Types of POPs

- 35-pill pack: 300 mg levonorgestrel or 350 mg norethindrone
- 28-pill pack: 75 mg norgestrel
- The table below summarises the types of POPs

Progestin only pills	Progestin content	Amount (mg)
Microlut	Levonogesterel	300
Micronor	Norethindrone	350
Ovrette	Norgestrel	75

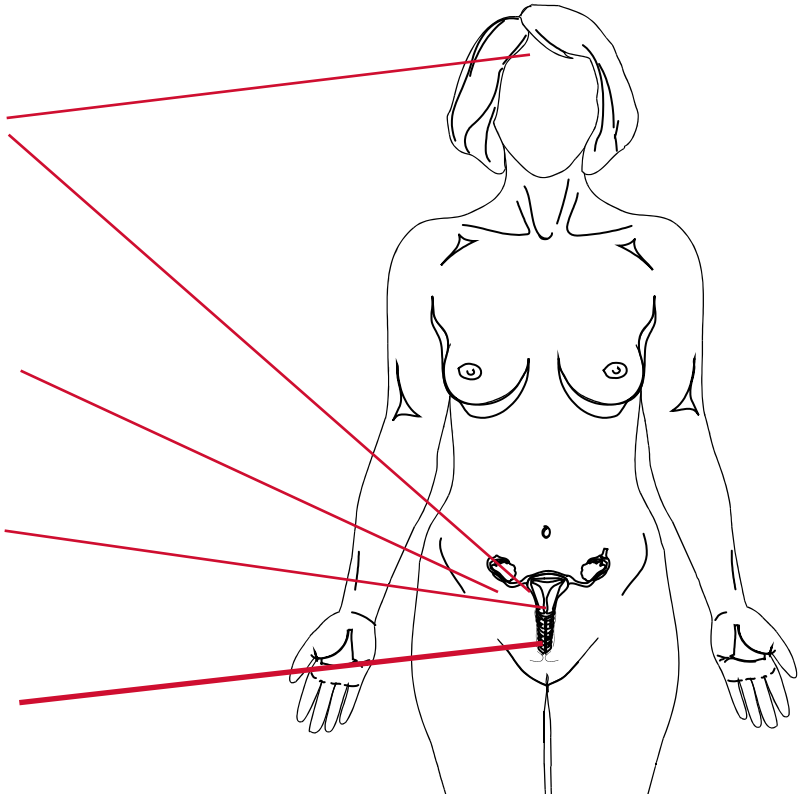
POPs: Mechanism of action

Suppress ovulation

Reduce sperm transport in upper genital tract (fallopian tubes)

Change endometrium making implantation less likely

Thicken cervical mucus (preventing sperm penetration)



POPs: Effectiveness

- Effective when taken at the same time every day (0.05–5 pregnancies per 100 women during the first year of use)
- If used correctly its 99% effective
- Immediately effective (< 24 hours)
- Less effective for non – breastfeeding women

POPs: Advantages

- Pelvic examination not required prior to use
- Do not interfere with intercourse
- Do not affect breastfeeding
- Immediate return of fertility when stopped
- Few side effects
- Convenient and easy-to-use
- Client can stop use
- Can be provided by trained non-medical staff

POPs: non-contraceptive benefits

- Decrease dysmenorrhoea
- May decrease menstrual bleeding
- May improve anemia
- Protect against endometrial cancer
- Decrease benign breast disease
- Do not increase blood clotting
- Protect against some causes of PID

POPs: Disadvantages

- Cause changes in menstrual bleeding pattern
- Some weight gain or loss may occur
- User-dependent (require continued motivation and daily use)
- Must be taken at the same time every day
- Forgetfulness increases method failure
- Re-supply must be available
- Effectiveness may be lowered when certain drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampin) are taken
- Do not protect against STIs (e.g., HBV, HIV and AIDS)

Medical Eligibility Criteria(Class 1 and 2) for POPs

Women:

- Of any reproductive age
- Of any parity including nulliparous women
- Who want effective protection against pregnancy
- Who are breastfeeding (6 weeks or more postpartum) and need contraception
- Who are postpartum and not breastfeeding
- Post abortion

MEC for POPs *continued*

Women:

- Who have blood pressure < 180/110, blood clotting problems or sickle cell disease
- With moderate to severe menstrual cramping
- Who smoke (any age, any amount)
- Who prefer not to or should not use estrogen
- Who want a progestin-only contraceptive but do not want injections or implants
- Who should not use progestogen-only IUDs

POPs: who may require additional counselling

Women:

- Who cannot remember to take a pill every day at the same time

- Who cannot tolerate any changes in their menstrual bleeding pattern

POPs: Should generally not be used (WHO MEC Class 3/4)

POPs are not recommended

- Is breastfeeding and before 6 weeks postpartum
- Current DVT /PE
- Active viral hepatitis
- Liver tumour (benign or malignant)
- Severe decompensated cirrhosis
- History of breast cancer or evidence of disease in the last 5 years
- Drug treatment affecting liver enzymes: rifampicin and certain anticonvulsants

POPs: Conditions for Which There Are No Restrictions

- Blood pressure (< 180/110)
- Diabetes (uncomplicated or < 20 years duration)
- Pre-eclampsia (history of)
- Smoking (any age, any amount)
- Surgery (with or without prolonged bed rest)
- Thromboembolic disorders
- Valvular heart disease (symptomatic or asymptomatic)

POPs: When to start

- Day 1 of the menstrual cycle
- Anytime you can be reasonably sure the client is not pregnant (if it has been more than 5 days since menstrual bleeding started, she will need to abstain from sex who use another method for the next 2 days)
- Postpartum:
  - after 6 months if using lactational amenorrhea method (LAM)
  - after 6 weeks if breastfeeding but not using LAM
  - immediately or within 6 weeks if not breastfeeding
- Post abortion (immediately)

POPs: Side effects which may require management

- Amenorrhea (absence of vaginal bleeding or spotting)
- Bleeding or spotting
- Heavy or prolonged bleeding
- Lower abdominal/pelvic pain (with or without symptoms of pregnancy)
- Weight gain or loss (change in appetite)
- Headache
- Nausea/dizziness/vomiting

POPs: Management of amenorrhea

- Evaluate for pregnancy, especially if amenorrhea occurs after period of regular menstrual cycles
- If not pregnant, counsel, reassure client and continue POPs
- If pregnant, stop POPs and refer for antenatal care

POPs: Management of bleeding or spotting

Prolonged spotting (> 8 days) or moderate bleeding:

- Reassurance
- Check for gynecologic problem (e.g., cervicitis)
- Short-term treatment:
  - COCs (30-50 µg EE) for 1 cycle[1], or
  - Ibuprofen (up to 800 mg 3 times daily x 5 days)

POPs: Management of prolonged or heavy bleeding

Bleeding twice as long or twice as much as normal:

- Carefully review history and check hemoglobin (if available)
- Check for gynecologic problem
- Short-term treatment:
  - COCs (30-50 µg) for 1 cycle[1], or
  - Ibuprofen (up to 800 mg 3 times daily) x 5 days

POPs: Management of prolonged or heavy bleeding *continued*

If bleeding not reduced in 3-5 days, give:

- 2 COC pills per day for the remainder of her cycle followed by 1 pill per day from a new packet of pills, or

- High dose estrogen (50 µg EE COC, or 1.25 mg conjugated estrogen) for 14-21 days

POPs: Drug interactions

Most interactions relate to increased liver metabolism of levonorgestrel:

- Rifampin (tuberculosis)
- Anti-epilepsy (seizures):
  - Barbiturates, phenytoin, carbamzepine (but not valproic acid)
- Griseofulvin (long-term use only)

POPs: Client instructions

- Take 1 pill at the same time each day.
- Take first pill on first day of your menstrual period.
- If you start POPs after the first day of your menstrual period, but before the seventh day, use a backup method for the next 48 hours.
- Take all pills in pack. Start a new pack on the day after you take last pill.
- If you vomit within 30 minutes of taking pill, take another pill or use a backup method if you have sex during the next 48 hours.

POPs: Client instructions *continued*

- If you take a pill more than 3 hours late, take it as soon as you remember. Use a backup method if you have sex during the next 48 hours.
- If you forget to take 1 or more pills, you should take the next pill when you remember. Use a backup method if you have sex during the next 48 hours.
- If you miss 2 or more menstrual periods, you should go to the clinic to check to see if you are pregnant. Do not stop taking pills unless you know you are pregnant.

POPs: General information

- Changes in menstrual bleeding patterns are common, especially during the first 2 or 3 cycles. They are often temporary and rarely a risk to health.
- Other minor side effects may include weight gain, mild headaches and breast tenderness. These symptoms are not dangerous and gradually disappear.
- Certain drugs (rifampin and most anti-epilepsy drugs) may reduce the effectiveness of POPs. Tell your provider if you start any new drugs.
- Use a condom if at risk for STIs (e.g., HBV, HIV and AIDS).

POPs: Warning signs

Return to clinic if any of the following occur:

- Delayed menstrual period after several months of regular cycles (may be sign of pregnancy)
- Severe lower abdominal pain
- Heavy or prolonged bleeding
- Migraine headaches

POPs: Common medical barriers to service delivery

- Age restrictions (young and old)
- Parity criteria (less than two living children)
- Who can provide (physicians or nurses only)
- Process hurdles (lab tests, pelvic exams)

POPs: Common medical barriers to service delivery *continued*

- Number of pill packets given
- Inappropriate precautions (diabetes, hypertension, smokers over age 35, etc.)
- Poor management of side effects leading to discontinuation of method
- Provider bias (does not recommend, need for “rest period”)

Emergency Contraception

Emergency Contraception

What it is?

- Contraceptive methods used to prevent pregnancy after unprotected sex

Also known as:

- Morning-After Pills
- Postcoital Contraception
- Secondary Contraception

Effective if taken within **120** hrs

Emergency Contraception: Methods

- Combined Oral Contraceptives (COCs):
  - Low-dose (30–35 µg Ethinly Estradiol and 150 µg Levonogestrel) e.g. Microgynon-4 tablets immediately, repeat dose after 12 hrs
  - High-dose (50 µg Ethinly Estradiol and 250 µg LNG) e.g. Eugynon-2 tablets immediately, repeat dose after 12 hrs
- Progestin-Only Pills (POPs):
  - 750 µg Levonogestrel (preferred e.g. Postinor 2-1 tablet, repeat after 12hrs or 2 tablets as single dose)
  - Regular POPs (Microlut-20 tablets and repeat after 12 hrs)
- IUDs:
  - TCu 380A, Multiload 375, Nova T

Mechanism of Action

- Mechanisms of action
  - May alter endometrium (mixed proliferative/secretory pattern)
  - Prevent ovulation
  - May alter tubal motility inhibiting transportation of the egg /sperm.

All are very effective (failure rate less than 2% in women who use it correctly)

Emergency Contraception- Advantages

- These methods have enormous potential for use as safe and effective postcoital contraceptives.
- If integrated with ongoing family planning information and services, may encourage new clients to come to clinic.
- Emergency contraception should not be used as a regular method of contraception
- IUDs also provide long-term contraception

Emergency Contraception: Disadvantages

- COCs are effective only if used within 120 hours of unprotected intercourse.
- COCs cause nausea and vomiting.
- POPs must be used within 120hours of unprotected intercourse but cause much less nausea than COCs.
- IUDs are effective only if inserted within 5 days of unprotected intercourse.
- IUD insertion requires minor procedure performed by a trained provider.
- IUDs are not best choice for women at risk for STDs (e.g., HBV, HIV/AIDS).

Emergency Contraception: Counseling

- Ensure that client does not want to become pregnant
- Explain:
  - Correct way to use
  - Emergency contraception (EC) is not suitable for regular use
  - Nausea and vomiting are common with COCs and POPs and cramping is common with IUDs
  - EC pills do not provide protection after 120 hrs
  - EC pills will not cause menses to come immediately
  - EC pills do not provide protection against STDs (e.g. HBV, HIV/AIDS).
- Offer client regular contraceptive methods

Women Who May Need Emergency Contraception (Primary Users)

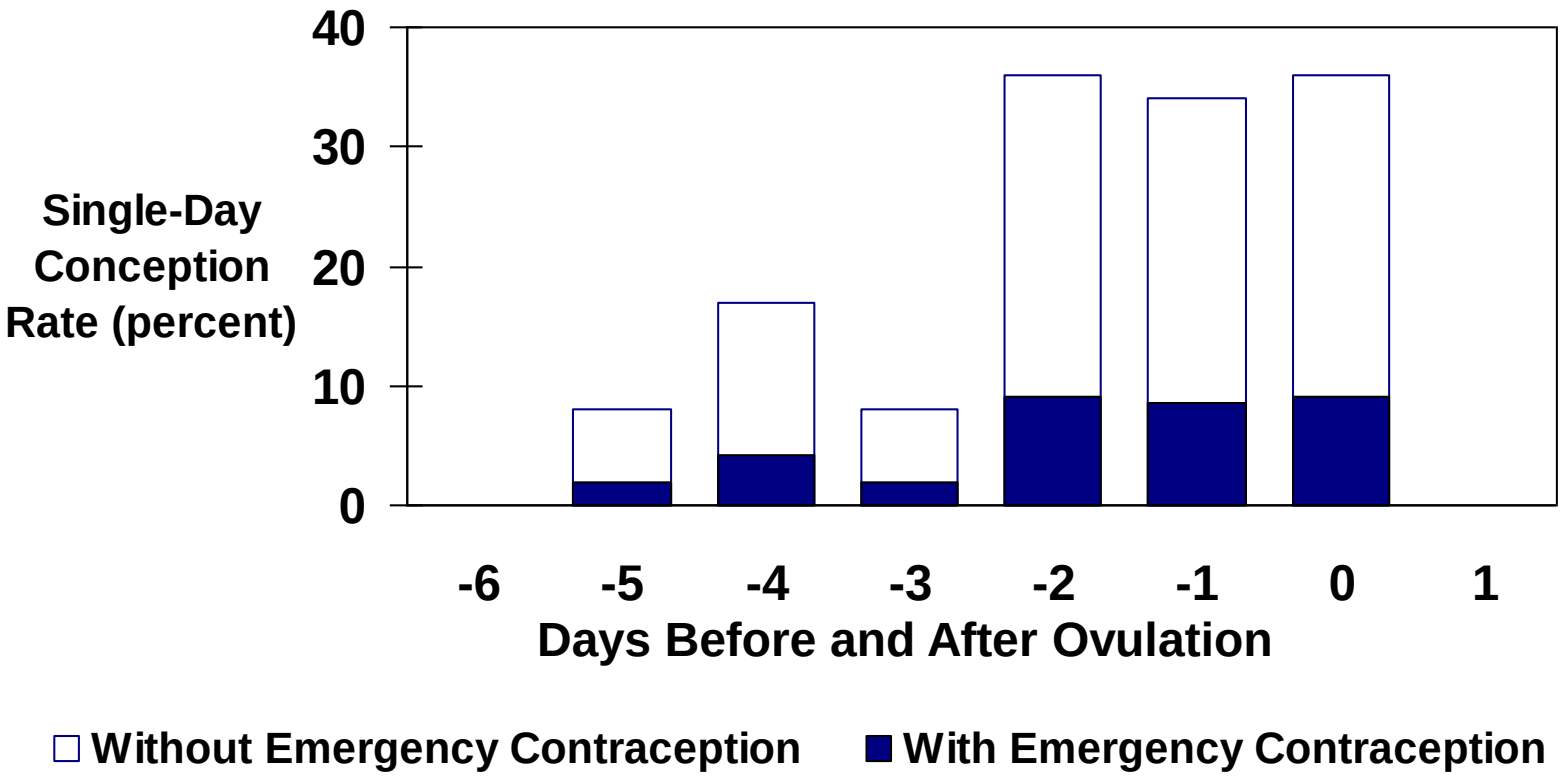
Women who:

- Have unplanned, unprotected intercourse
- Used a condom that may have leaked or broken
- Missed multiple COC pills
- Waited > 16 weeks beyond last injection (DMPA)
- Failed in using withdrawal method of contraception (ejaculation in vagina or external genitalia)
- Failed to abstain when needed while using NFP
- Incorrectly used a diaphragm or the diaphragm or cervical cap dislodged, broke or tore, or was removed early
- Are rape survivors

Who Should Not Use Emergency Contraception

- Women who are pregnant or suspected of being pregnant

Emergency Contraception: Probability of Conception



Emergency Contraception: COCs

- Safety
  - No long-term problems in nearly all women
  - Nausea (and vomiting) most common short-term side effect (due to estrogen)

COCs: Instructions for Use as Emergency Contraception (Low-Dose)

Preferred:

- Step 1: Take 4 tablets of a low-dose COC (30–35 µg EE) orally within 120 hours of unprotected intercourse.
- Step 2: Take 4 more tablets in 12 hours.

  Total = 8 tablets
- Step 3: If no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

COCs: Instructions for Use (High-Dose)

Alternative:

- Step 1: Take 2 tablets of a high-dose COC (50 µg EE) orally within 120 hours of unprotected intercourse.
- Step 2: Take 2 more tablets in 12 hours.

  Total = 4 tablets[1]
- Step 3: If no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

Emergency Contraception: POPs

- Mechanisms of action
  - May alter endometrium (mixed proliferative/secretory pattern)
  - May alter tubal motility
- Effectiveness
  - 2% failure rate when used correctly[1]
- Safety
  - No long-term problems in nearly all women
  - Less nausea (and vomiting) than with COCs

POPs: Instructions for Use as Emergency Contraception (High-Dose)

Preferred:

- Step 1: Take 1 tablet (750 µg of LNG) orally within 120 hours of unprotected intercourse.
- Step 2: Take 1 more tablet in 12 hours.

  Total = 2 tablets
- Step 3: If no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

POPs: Instructions for Use as Emergency Contraception (Low-Dose)

Alternative:

- Step 1: Take 20 tablets (30 or 37.5 µg of LNG or 75 µg of norgestrel) orally within 72 hours of unprotected intercourse.
- Step 2: Take 20 more tablets in 12 hours.

  Total = 40 tablets
- Step 3: If no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.

Postcoital IUD Insertion

- Mechanisms of action
  - May prevent fertilization by interfering with sperm transport or function
  - May prevent implantation by altering tubal or endometrial environment
- Effectiveness
  - < 1% failure rate[1]
- Safety
  - No adverse fetal effects (should be removed if pregnancy not prevented)
  - Should not be inserted for women at risk for STDs (e.g., HBV, HIV/AIDS)

IUDs: Instructions for Use as Emergency Contraception

- Step 1: Insert IUD within 5 days of unprotected intercourse.
- Step 2: If no menses (vaginal bleeding) within 3 weeks, the client should consult the clinic or service provider to check for possible pregnancy.
- Step 3: If pregnancy not prevented, counsel client regarding options.

Injectable Contraceptives

- Contain one or two hormones and provide protection from pregnancy for one, two or three months depending on type
- **The progestin only injectables** contain synthetic progesterone similar to the natural hormone in a woman's body.

Types of Injectables:

- Depot medroxyprogesterone acetate (DMPA)
- Northisterone enanthate (NET-EN)

Hormonal composition of the progestin only injectables

Progestin only injectable	Content per vial (mg)
Depo - provera	Medroxyprogesterone acetate 150
Noristerat	Norethidrone enenthate 200

Mechanism of action

- Suppression of ovulation
- Thickening of the cervical mucus
- Thinning of the endometrium which interferes with implantation.

Injectable progestin's: Effectiveness

Name of the contraceptive method	Theoretical effectiveness (%)	User effectiveness (%)	Failure rate (%)
DMPA	99.7	99.7	0.3
NET-EN	99.7	99.7	0.3

Injectable progestin: Advantages

- Highly effective, reversible.
- No pelvic examination required to initiate use.
- They are long acting.
- Do not contain estrogen therefore no cardiac and blood clot effects.
- Decreases sickle cell crisis
- Protects against endometrial cancer and possibly ovarian cancer.

Injectable progestin: Disadvantages

- Delay in return of fertility after discontinuation
- Common side effects such as bleeding changes such as spotting, heavy and /or prolonged bleeding or amenorrhea.
- Progestin injectables does not protect against STI/HIV individuals at risk should in addition use condoms.
- Other side effects include nausea, headache, breast tenderness and mood swings.

Injectable progestins: WHO MEC Class 1/2)

- Women of any parity including nulliparous with established menses.
- Women who want highly effective long term protection against pregnancy.
- Breastfeeding mothers after six weeks postpartum.
- Immediate postpartum if not breastfeeding.
- Women with fibroids or endometrial cancer.
- Women with poor compliance to the Oral contraceptive pills.
- Post abortal clients within 7 days
- Clients with obesity, anemia, sickle cell disease, thyroid disease , complicated diabetes, hypertension(<160/100mmHg)
- Women with STI/HIV and PID
- Smokers regardless of age or number of cigarettes used.

Injectable progestin: WHO MEC Class 3/ 4

- Breastfeeding women less than six weeks
- Women with active liver disease and severe cirrhosis.
- Women with benign or malignant liver tumors.
- Women with unexplained abnormal vaginal bleeding(before evaluation)
- Women with breast cancer or history of breast cancer.
- Women with blood pressure>160/100mmHg and vasculopathy.
- Women with history of stroke or CVA.
- Women with current DVT or pulmonary embolism
- Women with multiple risk factors for arterial cardiovascular disease(smoking , vasculopathy associated with diabetes, old age)

Client instructions for progestin injectable

- Within seven days after the start of the monthly period.
- If more than seven days after the start of her period she can commence injectables but will require a backup method for the first seven days post injection.
- If she is switching from an IUD she can start injectables immediately.
- If switching from an hormonal method used correctly no need to wait for the next monthly bleeding she can start immediately.

In breastfeeding mothers

- Delay the first injection to at least 6 weeks of postpartum.

Clients instructions cont.....

- If her menses has not returned she can start injectables anytime between six weeks and six months.

If the mother is more than six months

- If the menses are not returned he can commence at anytime after excluding pregnancy. A backup method will be required for the first seven days after the injection.
- Mothers with resumed menses can start within the first seven days.

Women not breastfeeding

- Less than four weeks post delivery can start at anytime and there is no need for backup.
- If more than four weeks postpartum and the menses have not returned, rule out pregnancy, start injectables and give backup for the first seven days.
- If the menses have returned she can start the injectables immediately.

Client instructions continued

If client has no menses(not related to childbirth or breastfeeding and not pregnant)

- Commence injectables and issue backup for the first seven days.

After miscarriage or abortion

- If within 7 days of 1st or 2nd trimester miscarriage start immediately. No need for backup.
- If more than 7 days after 1st or 2nd trimester miscarriage start injectable and give backup method for the next seven days.

After taking emergency contraceptive pills

- Clients can start injectables on the same day as the Emergency contraceptives. Or if preferred within seven days of starting her monthly period, this will require a backup method for the first seven days post injection. Be weary to look out for signs and symptoms of continued pregnancy.

Client instruction cont....

Return to clinic after injection	Time period
Depo provera	3 months
Noristerat	2 months for 3 months, then 3 monthly

How to administer the injection

- Aseptic technique with infection protocol to be observed.
- Injection site deep into the, upper arm deltoid muscle or the buttock upper outer portion (gluteal muscle).
- Do not massage the injection site.

Side effects of progestin injections and their management

Side effects	Management
Bleeding between periods	Assess for pregnancy and other gynecological conditions if present refer. COCs one tablet per day for seven days
Heavy or prolonged bleeding	No obvious cause and <8weeks do one or more of the following: COCs once daily upto 1-3 cycles Ethinyl estradiol 30-50mcg for 7-21 days Inject i.m Estradiol cypronate or combined injectable contraceaptive NSAIDS for 7-14 days
Weight gain	If weight unacceptable, instruct on diet or help client make an informed choice of a non-hormonal method.
Dizziness	Refer the client to be treated if slight. If severe may need to change the FP method to non-hormonal
Bloated abdomen	Counsel on diet, give MgSo4 for constipation or refer as appropriate
Breast tenderness	Counsel to wear supportive bra, hot or cold compress and NSAIDS

Side effects of progestin injections and their management

Side effects	Management
Amenorrhea with concerns to client	If pregnant stop the injection and refer to the antenatal clinic. If less than three months and no signs of pregnancy reassure. Client should be informed that amenorrhea can occur. If amenorrhea persists and no symptoms of pregnancy reassure . Change to COCs if not C/I .If C/I then help her make informed choice for other method
Loss of libido	Give lubricant, counsel or refer
Headaches	Check the BP >140/90mmHg do not give the injection. If persistently greater refer and consider change of FP method. If client develops severe migraine with aura do not give the injection to use non- hormonal method
Acne	Counsel on hygiene and avoid use of heavy creams. If it worsens change to non- hormonal method
Lower abdominal pain	Refer for urgent evaluation and management
Thrombophlebitis	Refer for urgent evaluation and management

Combined injectable contraceptives (CIC)

What are they?

- These are monthly injectable that contain two hormones containing a progestin and estrogen like the natural hormone in a woman's body.

Types of CICs:

- Cyclofem,
- cycloprovera
- Norigynon,
- Mesigyna

Hormonal composition

Name of contraception	Estrogen content (mg)	Progestin content (mg)
Cyclofem, cyclopovera	Estradiol cypoionate 5	Medroxyacetate progesterone 25
Norigynon, mesigyna	Estradiol valerate 5	Norethinderone enanthate 50

Combined injectables: Effectiveness

- Effectiveness > 99% if the client has the injection on time.
- If the women are not consistent then it becomes 97% efffective.

Combined injectables: WHO MEC Class 1/2

- If fully or nearly fully breastfeeding can start at 6 months postpartum.
- If partially breastfeeding can start at 6 weeks.
- If not breastfeeding can start at three weeks postpartum.
- If the blood pressure is below 140/90mmHg the injectable can be adminstered

Combined injectables: WHO MEC Class 4

- Diabetes for more than 20 years do not administer.
- History of stroke, heart attack, DVT or other serious heart problems should not be given.
- Breast cancer current or past do not give combined injectables.
- Severe Migraine headache do not give this method.
- Anticipated major surgery do not give this method.

Client instructions for CIC

Clients having menstrual cycle or switching from another hormonal method

- The client can start within days after commencement of the menses no backup required.
- If more than seven days post menses rule out pregnancy, commence injection and give backup method for seven days after injection.
- If switching from an IUD can start immediately.

Switching from a hormonal method

- Commenced immediately if the hormonal metrhod had been used correctly and consistently. There is no need for backup.
- If switching from another injectable can start the combined injectable when the repeat injection was due. There is no need for backup.

Fully or nearly fully breastfeeding

- Delay the first injection until 6 months or when breastfeeding is not the only baby's main food.

Clients instruction for CIC cont…

- More than six months and not bleeding rule out pregnancy start injection and backup method.

Partially breastfeeding

- Less than six weeks delay until 6 weeks postpartum.
- More than six weeks and no bleeding rule out pregnancy, commence injection and backup for seven days after the injection.

Not breastfeeding

- Less than four weeks from delivery commence injection within 21-28 days. No backup required.
- More than four weeks from delivery and not bleeding, rule out pregnancy, give injectable and backup for seven days after the injection.

Amenorrhea not related to childbirth or breastfeeding

- Rule out pregnancy, commence injection and give backup for seven days after the injection.

Clients instruction for CICs cont….

After miscarriage or abortion

1. Commence the injectable immediately if within seven days after the 1st or 2nd trimester miscarriage or abortion. No backup method required.
2. If more than seven days after the 1st or 2nd trimester miscarriage or abortion rule out pregnancy, commence injectable and give a backup method for seven days after the injection.

After taking emergency contraceptive pills

- Commence the injectable on the same day as the ECPs .No need to wait for the next period but a backup method is required for the first seven days after the injection.

Client instruction for CICs cont….

Repeat injection visits

- The standard is that the repeat injection is within four weeks. It is not based on the monthly period. However it can be given 7 days earlier or late.
- If the client is less than 7 days late issue the injection no need for test or a backup method.
- If more than 7 days late the injection can be given if
    a) She has used a backup method or taken ECP
    b) She has not had sex during the preceding seven days
- Backup method will be required for the first seven days.

Side effects and their management

Side effect	Management
Spotting or light bleeding between periods	•Common particularly in first 6-8 months •Persistent bleeding and women with bleeding after amenorrhea-assess for pregnancy or incomplete abortion. Exclude gynecological problems •If client is pregnant stop injectable, reassure and refer accordingly •If no gynecological problem but client finds bleeding unacceptable-short term treatment with Ibuprofen •If client chooses to discontinue injectable, help her choose another method.
Headache or dizziness	•If mild, treat with analgesics and reassure •Check BP. If normal and headaches persist, discontinue injectable and refer for evaluation

Side effects and their management

Side effect	Management
Heavy or prolonged bleeding(Lasting more than 8 days or twice as long as her usual periods)	•Explain heavy or prolonged bleeding is common in women using injectables particularly during the first 6-8 months •If bleeding becomes a threat to health, discontinue injectable •Provide heamatinics to prevent anaemia •If cause for bleeding is not obvious and less than 8 wks from last injection; a) NSAIDs e.g. Ibuprofen 400-800 mg tds for 7-14 days b) COC, one active pill daily upto 1-3 cycles (or 50 mcg pill where bleeding is continuing) or ethinyl oestradiol 30050 mcg daily for 7-21 days c) Inj. Estradiol cypronate 5 mg IM or CIC d) If client presents 8wks or more from last dose, give another dose of inj. And set new return date.

Side effects and their management

Side effect	Management
Amenorrhea	•Develops in majority of clients by end of first year •Does not require medical treatment Counseling and reassurance sufficient NB: Always rule out pregnancy •If client still bothered about amenorrhea, discontinue injectable and help her choose another method

Combined patches

What it is?

- A small thin square of flexible plastic worn on the body. It continuously releases progestin and estrogen like the natural hormones in a woman's body directly through the skin into the blood stream. It is worn every day and night for three weeks then no patch for the fourth week. Its during the fourth week the woman will get her menses.

Types

- Ortho Evra
- Evra

Combined patches

Mechanism of action:

- Primarily inhibits ovulation

Effectiveness:

- Research is ongoing.

Medical eligibility criteria:

- Refer to COCs

Side effects and management:

- Specific to the patch is skin irritation at site of application, flu symptoms and vaginitis. Other effects similar to COCs and are managed as stated above.

Combined patches *continued*

Client instructions for combined patch

- Client can apply the patch to the upper outer arm, back, stomach or buttocks whenever its clean and dry. Do not apply on the breasts. Pressure for 10 sec to be applied on the adhesive side of the patch against the skin weekly and must be changed on the same day(patch change day) for three consecutive weeks.
- After the patch free week a new patch must be applied.
- Never go without wearing a patch for more than seven days.

Client instructions for combined patch cont…

Late removal or replacement

- Apply a new patch as soon as possible. Record this day of the week as the new patch change day. Use a backup method for the next seven days of patch use.
- If a new patch was applied three or more days late and the client had unprotected sex in the past five days give ECPs.
- If the client forgot to change the patch by one or two days in the middle of the patch cycle(during week 2 or 3) apply a new patch as soon as you remember. No need for backup method.
- If late by more than 2 days stop the current cycle and start a new four week cycle immediately. Record this day as the new patch change day and use a backup method for seven days.
- Client forgot to remove at the end of four weeks. Remove the patch and start the next cycle on the usual patch change day. No need for backup.

Combined vaginal ring

What is it?

- It is a flexible ring placed in the vagina and slowly releases a progestin and an estrogen similar to the natural hormones of a woman's body. The hormones are absorbed through the wall of the vagina directly into the bloodstream. The ring is kept in place for three weeks and removed on the fourth week and the woman will get her menses.

Type :

- NuvaRing

Combined vaginal ring

Mechanism of action:

- Primarily works by inhibiting ovulation

Effectiveness:

- Research ongoing

Side effects and management:

- Specific to the rings are irritation, vaginitis and vaginal discharges. The rest are similar to COCs and are managed appropriately

Client instructions:

How to insert the ring .

- The client assumes either a standing with one leg up, squatting or lying down position. She compresses opposite side of the ring together and gently push the folded ring entirely deeply inside the vagina. The muscles of the vagina naturally keep the ring in place.

Client Instruction Combined Vaginal ring cont….

- The ring must be kept in place day and night for three weeks. At the end of the third week the client removes the ring and disposes it.
- To remove the ring the client should hook her index finger inside it or squeeze the ring between her index and middle fingers and pulls it out. She will probably have her menses during this week.
- Is she forgets and extends the ring for more than four weeks, no special attention is required.
- The ring can be removed for sex, cleaning or other reason but should not be left out more than three hours until the fourth week.
- If the ring accidentally slips out, she should rinsed rinse it in clean water and immediately reinsert it.

Client instructions for combined vaginal ring cont….

- If the ring is left out for more than three hours in the first and second week. It should be returned as soon as possible and a backup method given for the first seven days.
- If the ring is kept out for more than three hours in the third week stop the current cycle and discard the ring. Insert a new ring and leave in place for three weeks. A backup method must be in place for the next seven days. (Alternatively if the ring had been used continuously and correctly for the past seven days, leave the ring out and make the next seven days the week with no ring. After these seven days insert a new ring and keep in place for the next three weeks. A backup method for the first seven days with the new ring to be given).

Client instructions for vaginal rings cont….

- If client waited more than seven days before inserting a new ring or kept the ring in more than four weeks insert a new ring as soon as possible and use a backup method for the first seven days of ring use.
- Also if a new ring was inserted three or more days late and client had unprotected sex in the past five days consider use of ECP.

Implants

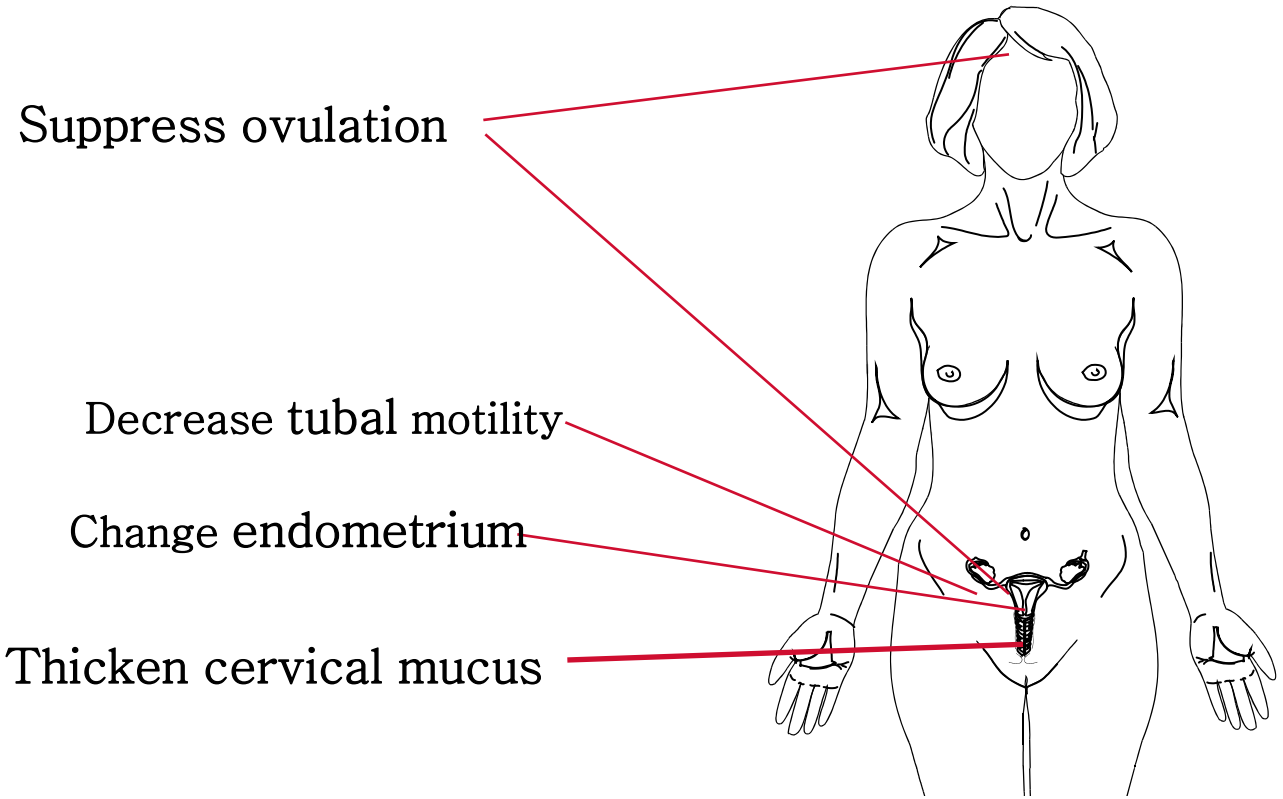
What are they?

- They are hormone bearing capsules or rods which when inserted under the skin of the womans upper arm release the progestin hormone slowly over a long period to prevent pregnancy

Types of implants

Name	Hormonal content (mg)	Number of rods	Effective period
Norplant	Levonogestrel 216	6	5 – 7 years
Jadelle	Levonogestrel 150	2	5 Years
Implanon	Levonogestrel 68	1	3 years

Implants: Mechanisms of Action



Implants: Effectiveness

- Over 99% effective.
- Effective contraceptive within <24 hours.

Implants: Advantages

- Highly effective (0.05–1 pregnancies per 100 women during the first year of use)
- Rapidly effective (< 24 hours)
- Long-term method
- Pelvic examination not required prior to use
- Do not interfere with intercourse
- Do not affect breastfeeding

Implants: Advantages *continued*

- Immediate return of fertility on removal
- Few side effects
- Client needs to return to clinic only if problems
- No supplies needed by client
- Can be provided by trained non physician (nurse or midwife)
- Contain no estrogen

Implants: Non-contraceptive Benefits

- Decrease ectopic pregnancy
- May decrease menstrual cramps
- May decrease menstrual bleeding
- May improve anemia
- Protect against endometrial cancer
- Decrease benign breast disease
- Protect against some causes of PID

Implants: Disadvantages

- Cause changes in menstrual bleeding pattern (irregular bleeding/spotting initially) in most women
- Require trained provider for insertion and removal
- Woman must return to healthcare provider or clinic for insertion of another set of capsules or removal

Implants: Disadvantages *continued*

- Woman cannot stop whenever she wants (provider dependent)
- Effectiveness may be lowered when certain drugs for epilepsy (phenytoin and barbiturates) or tuberculosis (rifampin) are taken
- Cost-effectiveness dependent on length of use
- Do not protect against STIs (e.g., HBV, HIV and AIDS)

Who Can Use Implants

Women:

- Of any reproductive age
- Of any parity including nulliparous women
- Who want highly effective, long-term protection against pregnancy
- Who are breastfeeding (6 weeks or more postpartum) and need contraception
- Who are postpartum and not breastfeeding
- Who are post abortion

Medical eligibility criterion (Class I and 2) *continued*

Women:

- With desired family size who do not want voluntary sterilization
- With histories of ectopic pregnancy
- Who have blood pressure < 160/110, blood clotting problems or sickle cell disease
- With moderate to severe menstrual cramping
- Who smoke (any age, any amount)
- Who prefer not to or should not use estrogen
- Who cannot remember to take a pill every day

Implants Use in Breastfeeding Women

- May increase quantity of breastmilk
- Has no effect on:
  - Initiation or duration of breastfeeding
  - Quality of breastmilk
  - Long-term growth and development of infants

Implants: Who Should Not Use (WHO MEC Class 4)

Implants should not be used if woman:

- Is pregnant (known or suspected)
- Has breast cancer within the past 5 years.

Implants: Conditions Requiring Precaution (WHO MEC Class 3)

Implants are not recommended unless other methods are not available or acceptable if woman:

- Present evidence of DVT/PE
- Active viral hepatitis
- Severe decompensated cirrhosis
- Benign or malignant liver tumour
- History of breast cancer with no evidence of disease for the last 5 years
- Breast-feeding and less than 6 weeks postpartum
- Unexplained vaginal bleeding suggestive of a serious underlying condition (before investigation)
- Drug treatment affecting liver enzymes: rifampicin and certain antoconvulsants

Implants: can generally be used with precaution in the presence of (WHO MEC Class 2)

Implants can be used safely in clients who:

- Raised blood pressure (≥ 160/100)
- Any history of hypertension where the blood pressure cannot be evaluated
- Hypertension with vascular disease
- Current or history of heart disease
- Diabetes with or without complications
- Migraine with or without aura
- Known hyperlipidaemia
- History of venous thromboembolic diseases (blood clotting
- Major surgery (with or without prolonged bed rest)
- Mild compensated cirrhosis
- Gallbladder disease
- Undiagnosed breast mass
- CIN
- Cervical cancer (awaiting treatment)
- ARV

When to insert Implants

- Days 1 to 7 of the menstrual cycle
- Anytime you can be reasonably sure the client is not pregnant
- Postpartum:
  - after 6 months if using lactational amenorrhea method (LAM)
  - after 6 weeks if breastfeeding but not using LAM
  - immediately or within 6 weeks if not breastfeeding
- Post abortion (immediately or within the first 7 days)

Implants: Infection Prevention Recommendations

- Clean the insertion site with antiseptic
- Use sterile or high-level disinfected instruments, surgical gloves and other items.
- After use, decontaminate all items.
- Place disposables (needle and syringe) and waste items in a puncture-proof container prior to disposal.
- Clean and final process reusable items by sterilization (or high-level disinfection).

Implants: Ectopic Pregnancy

- Facts:
  - Progestogens lead to lower tubal motility.
  - Lower tubal motility may alter egg or zygote transport and lead to ectopic pregnancy.

- Findings:
  - No increased rate of ectopic pregnancy during effective life (5 years).
  - Ectopic pregnancy is more likely (about 13%) if pregnancy occurs in Norplant implants users.

Implants: Ten Most Frequently Reported Conditions

Side Effects	Percentage of Women
Vaginal Discharge	25.4
Headache	26.6
Pelvic Pain	15.9
Weight Increase	12.5
Dizziness	8.9
Breast Pain	8.7
Genital Itching	10.9
Nervousness	8.9
Cervicitis	9.0
Nausea	6.2

Implants: Treatment of Common Side Effects

Side Effects	Management
Irregular or heavy bleeding	Check for gynecologic problem Counselling and reassurance COCs, NSAIDs or oral estrogens
Headache	Nonnarcotic analgesics
Weight change	Diet history, advice and exercise
Breast tenderness	Support bra
Breast discharge	Decreased nipple stimulation
Acne	Diet, cleansers and topical antibiotics

Implants: Drug Interactions

Most interactions relate to increased liver metabolism of levonorgestrel:

- Rifampin (tuberculosis)
- Anti-epilepsy (seizures):
  - Barbiturates, phenytoin, carbamzepine (but not valproic acid)
- Griseofulvin (long-term use only)

Implants: Insertion Site Problems

Problem	Percentage of Women
Infections	< 1.0
Expulsions	< 0.5
Cellulitis	< 0.5

Implants: Client Instructions

- Keep incision area dry for 4 to 5 days.
- Remove gauze bandage after one or two days but leave adhesive plaster in place for additional 5 days.
- Bruising, swelling and tenderness at insertion site are common.
- Routine work can be done immediately. Avoid bumping the area, carrying heavy loads or applying unusual pressure to incision site.
- After healing, area can be touched and washed with normal pressure.
- Return to clinic if rods come out or soreness develops after removing adhesive tape
- Return to clinic if she experiences pain, heat, pus or redness at incision site

Implants: General Information

- Contraceptive effectiveness begins 24 hours after insertion and stops soon after removal.
- Changes in menstrual bleeding patterns are common.
- Certain drugs may reduce effectiveness of implants. Tell your provider if you start any new drugs.
- The removal of implants is necessary after effective period expires.
- After removal, the fibrous sheath may be felt.
- Reinsertion of another implant can be made immediately after removal of expired implant.
- Use a condom if at risk for STIs (e.g., HBV, HIV and AIDS).

Implants: Warning Signs

Return to clinic if any of the following occur:

- Delayed menstrual period after several months of regular cycles (may be sign of pregnancy)
- Severe lower abdominal pain
- Heavy bleeding
- Pus or bleeding at insertion site
- Infection at insertion site
- Expulsion
- Migraine headaches

Intrauterine contraceptive devices (IUDs)

What are they?

- These are flexible plastic device containing copper or hormone that is placed high up in the uterine cavity by a trained service provider to prevent pregnancy.
- Two broad types; Copper based and hormone releasing

Types of medicated IUDs

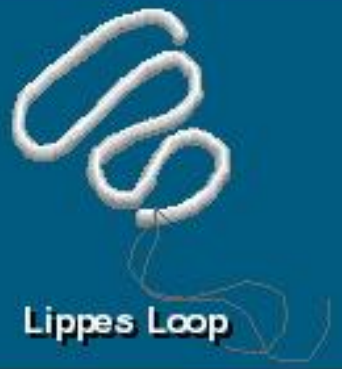
Copper-releasing:

- Copper T 380A
- Nova T
- Multiload 375

Progestogen releasing:

- Progestasert
- LevoNova (LNG-20)
- Mirena

Early IUDs



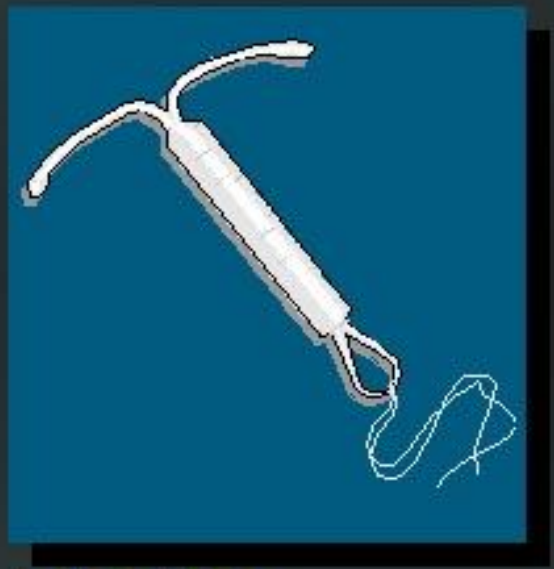
Lippes Loop

Chinese Stainless Steel Rings

Prototypes

Copper IUDs

Hormonal IUDs

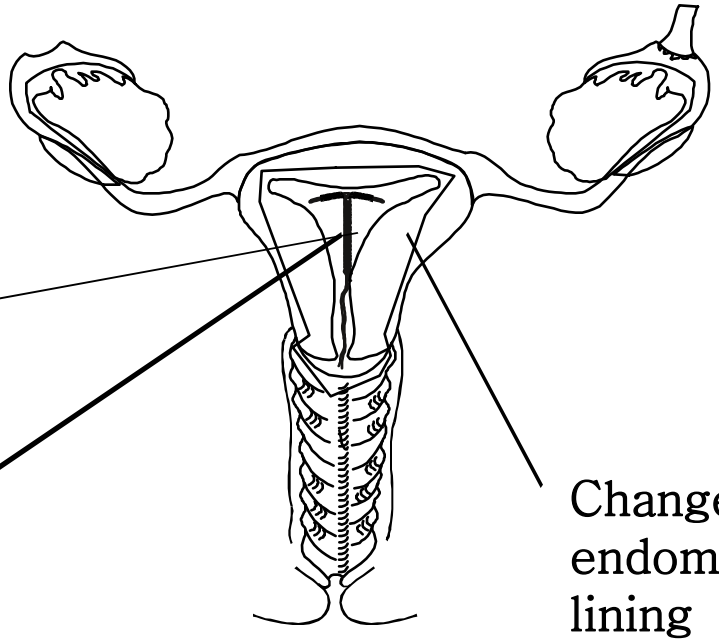


LNG IUD

20 µg Levonorgestrel daily
5-year lifespan or more

Copper IUDs: mechanisms of action (SOFI)

Interfere with ability of sperm to pass through uterine cavity(sperm immobilisation)



Thicken cervical mucus

Change endometrial lining (implantation prevention)

IUD: Effectiveness

- This is 98% effective .
- It is effective immediately post insertion.
- The levonorgestrel IUD has >99% effectiveness.

IUDs: Advantages

- Highly effective (cumulative pregnancy rate of 2.2 per 100 women for Copper T 380A).
- Effective immediately
- Long-term method (up to 12 years protection with Copper T 380A)
- Levonorgestrel IUD recommended for 5 years.
- Do not interfere with intercourse
- Immediate return to fertility upon removal
- Do not affect breastfeeding
- Can be used as an emergency contraceptive

IUDs: Advantages *continued*

- Few side effects
- After follow-up visit, client needs to return to clinic only if she experiences problems
- No supplies needed by client
- Can be provided by trained non-physician
- Inexpensive (Copper T 380A)

IUDs: Non-contraceptive benefits

- Decrease menstrual cramps (progestogen-releasing only)
- Decrease menstrual bleeding (progestogen-releasing only)
- Decrease ectopic pregnancy

IUDs: Disadvantage

- Pelvic examination MUST be performed
- Requires trained provider for insertion and removal
- Need to check for strings after menstrual period if cramping, spotting or pain
- Woman cannot stop use whenever she wants (provider-dependent)
- May cause changes in menstrual periods during the first few months and cramping (during the first 24-48 hours after insertion) (copper-releasing only)
- May be spontaneously expelled

IUDs: Disadvantage *continued*

- Rarely (< 1/1000 cases), perforation of the uterus may occur during insertion
- May increase risk of PID where insertion has taken place under unsanitary conditions, or when the IUD is inserted in the presence of an undiagnosed STI
- Levonogestrel- IUD may cause breast tenderness, nausea and mood changes.

Medical eligibility criterion(Class 1 and 2) for IUDs

Women of any reproductive age or parity who:

- Want highly-effective, long-term contraception
- Are breastfeeding
- Are postpartum and not breastfeeding
- Are post abortion
- Are at low risk for STIs
- Cannot remember to take a pill every day
- Prefer not to use hormonal methods or should not use them
- Are in need of emergency contraception
- HIV infected and those with AIDS who are clinically well on ARVs

IUDs (copper): who should not use (WHO MEC Class 4)

Do not advise the use of any IUD or provide it to women with:

- Known or suspected pregnancy
- Puerperal or post-abortion sepsis current or within the last 3 months
- PID current
- STI current (STIs that may produce cervical infection, chlamydia or gonorrhea)
- Purulent cervicitis
- Confirmed or suspected malignancy of the genital tract
- Unexplained vaginal bleeding (suspicious for serious condition)
- Cervical cancer awaiting treatment; endometrial cancer
- Distorted uterine cavity
- Malignant gestational trophoblastic disease
- Known pelvic TB

IUDs (copper): conditions requiring careful consideration: (WHO MEC Class 3)

IUDs are not recommended unless other methods are not available or acceptable if a woman has:

- Ovarian cancer
- Very high risk of STIs
- Initiation for women with AIDS
- Benign trophoblastic disease
- From 48 hours to 4 weeks post-partum

IUDs (copper): can generally be used with precaution in the presence of: (WHO MEC Class 2)

- Menarche to < 20 years of age
- Nulliparous
- < 48 hours post partum (copper IUD)
- Post abortion following second trimester abortion
- Cervical stenosis
- Complicated valvular heart disease
- Uterine fibroids without distortion of the uterine cavity
- PID without subsequent pregnancy
- Vaginitis without purulent
- Anemia (hemoglobin < 9 g/dl or hematocrit < 27)
- Painful menstrual periods
- Simple vaginal infection (candidiasis or bacterial vaginosis) without cervicitis
- Symptomatic valvular heart disease

STI/HIV/AIDS can affect IUD Eligibility

Condition	Category	
	Initiation	Continuation
Current STI, PID or purulent cervicitis	4	2
High individual risk of STI	3	2
AIDS	3	2
AIDS and clinically well on ARV	2	2
HIV positive	2	2
Increased risk of STI	2	2

When to insert an IUD

- Anytime during the menstrual cycle when you can be reasonably sure the client is not pregnant
- Days 1 to 12 of the menstrual cycle
- Postpartum insertion of IUD can be immediately following delivery, during the first 48 hours postpartum or after 4 weeks. Also levonorgestrel releasing IUD can be inserted after 4 weeks delivery if the woman is breastfeeding or planning to breastfeed.
- Post abortion (immediately or within the first 7 days) provided no evidence of pelvic infection

IUDs: infection prevention recommendations

Pre-insertion:

- Wash hands before examining client.
- Wash genital area if hygiene poor.

Insertion:

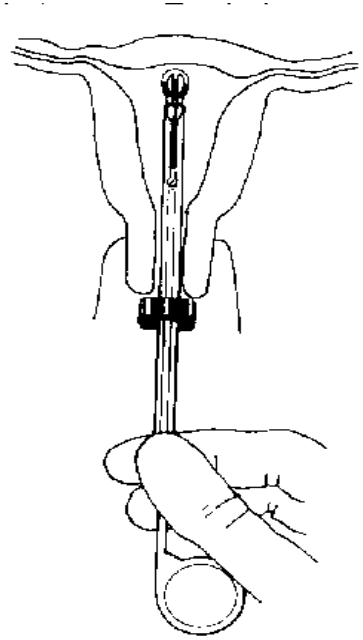
- Put on sterile gloves on both hands.
- Load IUD in sterile package.
- Clean cervical os (and vagina) thoroughly with antiseptic.
- Use “no touch” insertion technique.

IUDs: infection prevention recommendations *continued*

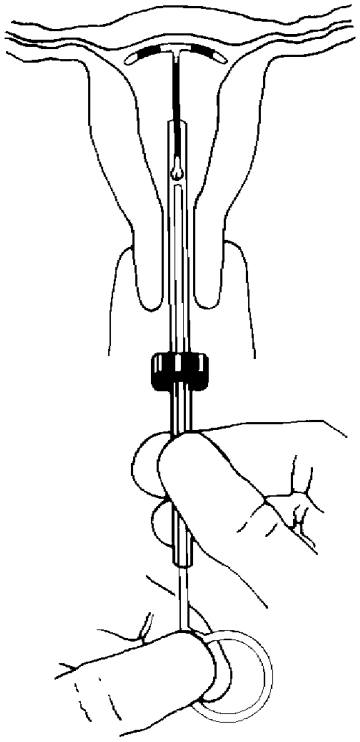
Post insertion:

- Decontaminate used instruments and linen.
- Safely dispose of contaminated waste items.
- Wash hands after removing gloves.

IUD Insertion: Withdrawal Method



(2)
Withdraw
inserter tube



(1)
Hold
plunger

IUDs: common side effects

Copper-releasing:

- Heavier menstrual bleeding
- Irregular or heavy vaginal bleeding
- Intermenstrual cramps
- Increased menstrual cramping or pain
- Vaginal discharge

Levonorgestrel releasing:

- Amenorrhea or very light menstrual bleeding/spotting

IUDs: possible other problems

- Missing strings
- Slight increased risk of pelvic infection (up to 20 days after insertion)
- Perforation of the uterus (rare)
- Spontaneous expulsion
- Ectopic pregnancy
- Spontaneous abortion
- Partner complaints about feeling strings

IUDs: immediate post-placental insertion

- Special training for providers
- Prenatal counselling for clients
- No additional risk of infection, bleeding or perforation
- Convenient for client
- Cost effective

Post partum insertion of IUD

- Caesarean section- IUCD can be inserted before uterus is sutured
- Post placental-IUCD can be inserted within 10 min after expulsion of placenta following vaginal delivery
- Immediate post partum-Can be inserted after post placental window but before 48 hrs. If not wait until 4 weeks after delivery
- Post abortion with no complications- insert immediately or within 12 days (rule out infection)
- Interval insertion-insert IUCD within first 12 days of menses or anytime after pregnancy has been ruled out

Contraindications for post partum IUCD

Situations with increased risk of infections

- Prolonged rupture of membranes
- Prolonged labour
- Peuperal genital infection
- Peuperal sepsis

IUDs: client instructions

- The IUD is effective immediately.
- The IUD can come out of the uterus spontaneously, especially during the first few months.
- Bleeding or spotting may occur during first few days.
- Menstrual bleeding may change depending on type of IUD.
- The IUD may be removed any time you wish. However, it is safe and effective for (x number of years) when using the (type of IUD).
- IUDs do not provide protection against STIs, (e.g., HBV, HIV and AIDS.)

IUDs: client instructions *continued*

- Return for a routine follow-up within 3 weeks but not before the first menstrual period
- During the first month after insertion, check the strings several times, particularly after your menstrual period.
- If strings cannot be felt through bi manual exam, refer for U/S to confirm whether device is in situ
- Check strings after first month, only if you have:
  - cramping in the lower part of the abdomen,
  - spotting between periods or after intercourse, or
  - pain after intercourse (or if your partner experiences discomfort during sex).

Client instructions for Levonorgestrel IUD insertion

Client having menstrual cycle or switching from a non- hormonal method

- Insert within seven days of menses and no need for backup.
- If more than seven days after the menses rule out pregnancy, insert LNG-IUD and issue a backup method for the first seven days after insertion.
- Client switching from a hormonal method if she had been using correctly and consistently insert immediately. No need to wait for menses or backup.

LND-IUD client instruction cont….

Fully or nearly breastfeeding less than six months

Delay the insertion after 4 weeks post delivery

- If the monthly period has not returned insert anytime between four weeks and six months. No need for backup method.
- If more than six months after delivery and menses not resumed rule out pregnancy. Insert LNG-IUD and provide a backup method for seven days after insertion.

Partially breastfeeding or not breastfeeding

- Delay insertion until the fourth week after delivery.
- If more than four weeks after delivery and menses have not resumed insert LNG-IUD and provide a backup for the first seven days after insertion.
- Amenorrhea not related to childbirth or breastfeeding rule out pregnancy, insert LNG-IUD and provide a backup for seven days after insertion.

IUDs: general information

- Removal of the Copper T380A is necessary after 12 years but may be done sooner if you wish.
- Return to your provider if you:
  - cannot feel the strings,
  - feel the hard part of the IUD,
  - expel the IUD, or
  - miss a period.
- Use condoms if at risk for STIs.

Warning signs for IUD users

Contact healthcare provider or clinic if you develop any of the following problems:

- Delayed menstrual period with pregnancy symptoms (nausea, breast tenderness, etc.)
- Persistent or crampy lower abdominal pain, especially if accompanied by not feeling well, fever or chills (symptoms suggest possible pelvic infection)
- Strings missing or the plastic tip of IUD can be felt when checking for strings
- Either you or your partner begin having sexual relations with more than one partner; IUDs do not protect women from STIs (e.g., HBV, HIV and AIDS)

IUDs: management of vaginal bleeding problems

- Reassure client that menses generally are heavier with an IUD and bleeding/spotting may occur between periods, especially in first few months.
- Evaluate for other cause(s) and treat if necessary.
- If no other cause(s) found, treat with nonsteroidal anti-inflammatory agent (NSAID, such as ibuprofen) for 5-7 days.
- Counsel on options and consider IUD removal if client requests.

IUDs: Management of cramping and pain

- Reassure client that cramping and menstrual pain (dysmenorrhea) may occur with an IUD, especially in first few months.
- Evaluate for other cause(s) and treat if necessary.
- If no other cause(s) found, consider treating with acetaminophen or ibuprofen daily with onset of menses.
- Counsel on options and consider IUD removal if client requests.

Management of partner complaints about feeling IUD string

- Discuss client/couple's concerns, reassure it is not a serious problem and requires treatment only if really bothersome.
- Check to be sure IUD is not partially expelled.
- If IUD is in place, treatment options are:
  - cut string, or
  - remove IUD if client desires.

Management of partner complaints about feeling IUD String *continued*

When cutting the string:

- Cut string upto 3 cm from cervical os.
- Explain that IUD string now is located at opening of cervical os, and she will not be able to feel it.
- Note in record that string has been cut (important for follow-up and future removal).

NB: Coil strings around the fornix post partum insertion

Management of Pregnancy

Ask about exposure and signs/symptoms of pregnancy and perform pregnancy test

If pregnant:

- examine for possible ectopic pregnancy
- if possible, remove IUD
- if not possible, counsel client on risks of pregnancy with IUD in place

Management of Perforation

If perforation occurs:

- stop procedure
- remove IUD
- provide alternative contraception
- follow-up after one week
- insert another IUD after next menses

IUDs: Indications for removal

- Anytime the client desires
- At the end of effective life of the IUD
  - TCu 380A = 12 years
- If change in sexual practices (high risk behavior), consider adding barrier method (condoms) or removal.
- If treated for STI or documented pelvic infection.
- Menopause

Fertility awareness method(natural family planning)

What are they?

- These are ways by which a couple will learn to achieve or avoid a pregnancy by applying proper sexual behavior during the fertile and infertile phases of the menstrual cycle.

Fertility awareness based methods

- Calendar or rhythm Method (Ogino-Klaus)
- Basal Body Temperature (BBT)
- Cervical Mucus Method (Billings)
- Sympto-thermal (BBT + cervical mucus)
- Standard days method(cycle beads)
- Coitus interruptus

Mechanism of action

For contraception:

- Avoid intercourse during the fertile phase of the menstrual cycle when conception is most likely.

For conception:

- Plan intercourse near mid-cycle (usually days 10-15) when conception is most likely.

Fertility awareness methods: Effectiveness

Method	Theoretical (%)	Use (%)
Calendar/ rhythm method	91-99	80
Basal body temperature	93.4 - 97	90 - 94
Cervical mucus (Billings method)	98	75 - 90
Symptothermal	65.6- 95	90
Standard day method (cycle beads)	95	88
Coitus interruptus	91	81

Advantages of fertility awareness method

- Can be used to prevent or achieve pregnancy
- No method-related health risks
- No systemic side effects
- Inexpensive

Non-contraceptive Advantage

- Improved knowledge of reproductive system
- Possible closer relationship between couple
- Increased male involvement in family planning

Disadvantages

- Moderately effective (1-25 pregnancies per 100 women during the first year of use)
- Effectiveness depends on willingness to follow instructions
- Considerable training required to use correctly
- Requires trained provider (non-medical) to instruct about methods
- Requires abstinence or use of another method (such as condoms) during fertile phase to avoid conception

Disadvantages *continued*

- Requires daily record keeping
- Vaginal infections make cervical mucus difficult to interpret
- Basal thermometer needed for some methods
- Does not protect against STIs (e.g., HBV, HIV and AIDS)

Who can use these methods

Women/couples:

- Of any reproductive age
- Of any parity, including nulliparous women
- With religious or philosophical reasons for not using other methods
- Unable to use other methods
- Willing to abstain from intercourse for more than 1 week each cycle
- Willing and motivated to observe, record and interpret fertility signs

Client who may require additional counselling

Women:

- Whose age, parity or health problems make pregnancy a high risk
- Without established menstrual cycles (breastfeeding, immediately post abortion)
- With irregular menstrual cycles (calendar method only)
- Whose partner will not cooperate (abstain) during certain times in the cycle
- Who dislike touching their genitals

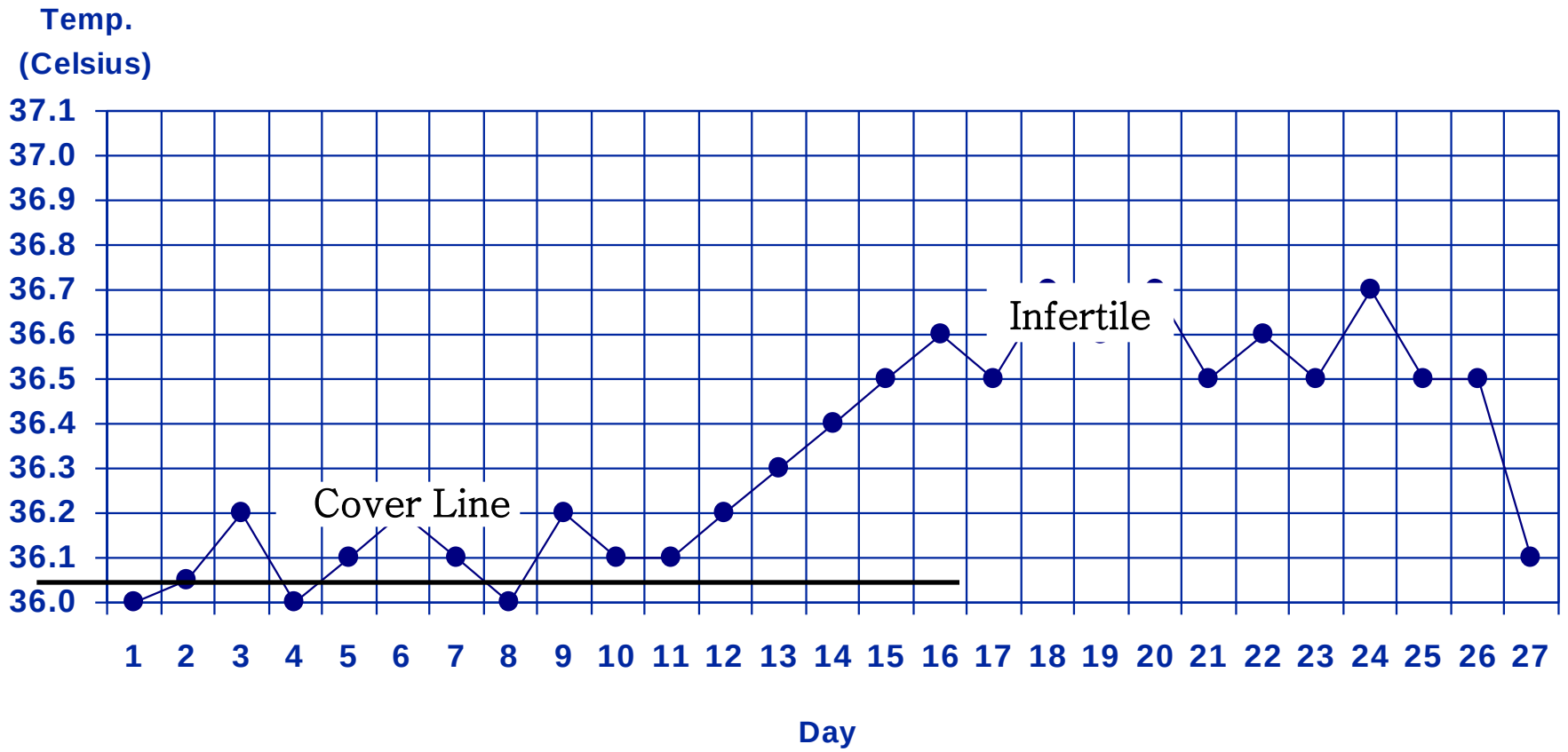
Conditions requiring precautions

- Irregular menses
- Persistent vaginal discharge
- Breastfeeding

Client instructions for calendar method

- Monitor length of at least 6 menstrual cycles while abstaining or using another contraceptive method. Then calculate when fertile days occur following the instructions below.
- From number of days in longest cycle, subtract 11. This identifies the last fertile day of cycle.
- From number of days in shortest cycle, subtract 18. This identifies the first fertile day of your cycle.
- For example, if the last 6 cycles were: 28, 26, 29, 27, 29, and 27 days long:
  - The first day of the fertile phase = 26-18=8
  - The last day of the fertile phase=29-11=18
- Accordingly, sexual intercourse should be avoided from days 8-18 of the menstrual cycle (both days inclusive)

Basal Body Temperature Chart



Client instructions for BBT method

Thermal Shift Rule:

- Take temperature at about same time each morning (before rising) and record temperature on chart provided by NFP instructor.
- Use temperatures recorded on chart for first 10 days of menstrual cycle to identify highest of “normal, low” temperatures (i.e., daily temperatures charted in typical pattern without any unusual conditions).
- Disregard any temperatures that are abnormally high due to fever or other disruptions.
- Draw a line 0.05-0.1°C above highest of these 10 temperatures. This line is called the cover line or temperature line.

Client instructions for BBT method *continued*

- The infertile phase begins on the evening of the third consecutive day that temperature stays above the cover line (Thermal Shift Rule).
- Abstain from sexual intercourse from the beginning of menstrual period until beginning of infertile phase.
- If any of 3 temperatures falls on or below cover line during 3-day count, this may be a sign that ovulation has not yet taken place. To avoid pregnancy, wait until 3 consecutive temperatures are recorded above cover line before resuming intercourse.
- After infertile phase begins, you may stop taking temperature until next menstrual cycle begins and continue to have intercourse until first day of next menstrual period.

Client instructions for Billings Method

- As mucus may changes during the day, observe it several times throughout the day. Every night before going to bed, determine highest level of fertility and mark chart with appropriate symbol.
- Abstain from sexual intercourse for at least 1 cycle so that you will know the mucus days. Avoid intercourse during your menstrual period.
- During dry days after period, it is safe to have intercourse.
- As soon as any mucus or sensation of wetness appears, avoid intercourse or sexual contact.

Client instructions for Billings Method

continued

- Mark last day of clear, slippery, stretchy mucus with an X. This is the peak day, the most fertile time.
- After the peak day, avoid intercourse for next 3 dry days and nights. These days are not safe.
- Beginning on the morning of the fourth dry day, it is safe to have intercourse until your menstrual period begins again.

Client instructions for symptothermal method

- After menstrual bleeding stops, you may have intercourse on the evening of every dry day during infertile days before ovulation.
- The fertile phase begins when wet vaginal sensations or any mucus appears. Abstain from intercourse until fertile phase ends.
- Abstain from intercourse until both peak day and thermal shift rules have been applied.
- When these rules do not identify the same day as being the end of the fertile phase, always follow rule that identifies the longest fertile phase.

Client instructions for standard days method (SDM)

- To prevent pregnancy the couple abstains from sex, uses barrier method or withdraw on day 8 to 19 of the cycle formula based on computer analysis of thousands of menstrual cycles. The use of SDM is facilitated by cycle beads, a color coded strings of beads that represent the days of the cycle.
- Important to note the is method works with women whose menstrual cycle is between 26 to 32 days.
- Breastfeeding women or those who are using, or recently have used, contraceptive injectables need to wait a few cycles before they can use SDM.

Coitus interruptus (Withdrawal)

- What it is?
- The man withdraws his penis from his partner's vagina and ejaculates outside the vagina keeping his semen away from her external genitalia.

Clients instruction for coitus interruptus

- An alternative family planning method to be given until the man learns to use the withdrawal method correctly.
- Note men who have difficulty with sensing ejaculation and those who get premature ejaculation this method may be unfavorable.
- If ejaculation occurs before withdrawal the female client must be referred for emergency contraception.

BARRIER METHODS

What are they?

- These are methods that prevents the sperms from gaining access to the upper reproductive tract thus preventing it from meeting the egg.

BARRIER METHODS- Types

TYPES:

- Male condom
- Female condom
- Diaphragm
- Cervical cap
- Spermicides: foaming tablets, creams, suppositories, jellies and film.

BARRIER METHODS EFFECTIVENESS

NO	METHOD	THEORETICAL	USE
1	Male latex condom	98%	95-97%
2	Female condom	98%	95-79%
3	Diaphragm	97%	82%
4	Spermicides	97%	79%

MALE CONDOMS

What is it?

Male condom is a thin latex rubber sheath which is put over the erect penis before sex and is removed immediately after ejaculation.

Male Condoms: Types

- Types include;
  - Plain Condoms
  - Lubricated condoms
  - Spermicide lubricated
  - Flavored condoms

Male Condoms: Advantages

- It is the only scientifically proven method that protects against HIV/STI transmission and pregnancy (Dual protection) with consistent and proper use.
- Highly effective when used properly
- Effective immediately
- Do not affect breastfeeding
- Do not interfere with intercourse
- Can be used as backup to other methods
- No method-related health risks
- No systemic side effects
- No prescription or medical assessment necessary

Male Condoms: Disadvantages

- Varied effectiveness as contraceptives depends on willingness to follow instructions
- User-dependent (require continued motivation and use with each act of intercourse)
- It can be damaged by oil based lubricants, excessive heat, humidity and light

Male Condoms: Who Can Use WHO MEC Class 1

- Men wishing to participate actively in family planning
- Couples who have sexual intercourse infrequently
- People in casual sexual relationships where pregnancy is not desired.
- Couples needing a back up method wile waiting for another contraceptive method to become effective
- Couple who need temporary method while waiting to receive another contraceptive method
- Those who are at an increased risk of STIs
- Couples where one or both of the partners are HIV/Positive

Male Condoms: Who should not use WHO MEC 4

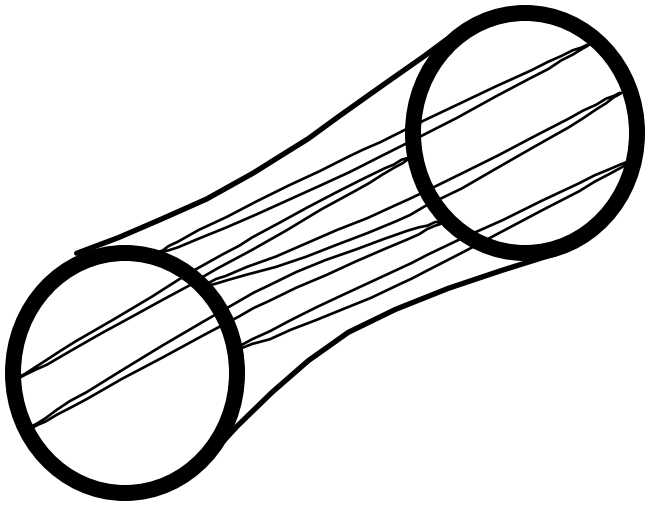
- Individuals allergic to latex (material of which the male condom are made), should consider other contraceptive options. However, for those at risk for STI/HIV, condom use I still appropriate as there are no other methods that offer STI/HIV protection.
- Couples who want highly effective protection against pregnancy E.g. where a woman has a condition that makes pregnancy an unacceptable risk and therefore needs to consider a more reliable method.

Male Condoms- Client Instructions for Use

- Ensure there is adequate lighting
- Check expiry date – if date of manufacture is available, add 5 years to determine date of expiry
- Press the condom pack to determine presence of air
- Identify serrated edge and push condom downwards away from the cutting edge
- Do not use teeth to cut open the condom pack
- Insert condom on an erect penis, roll condom to the base of penis
- Before insertion, press the tip of condom to expel air
- Removal of condom after use should be done when penis is still partially erect

Female condoms: definition

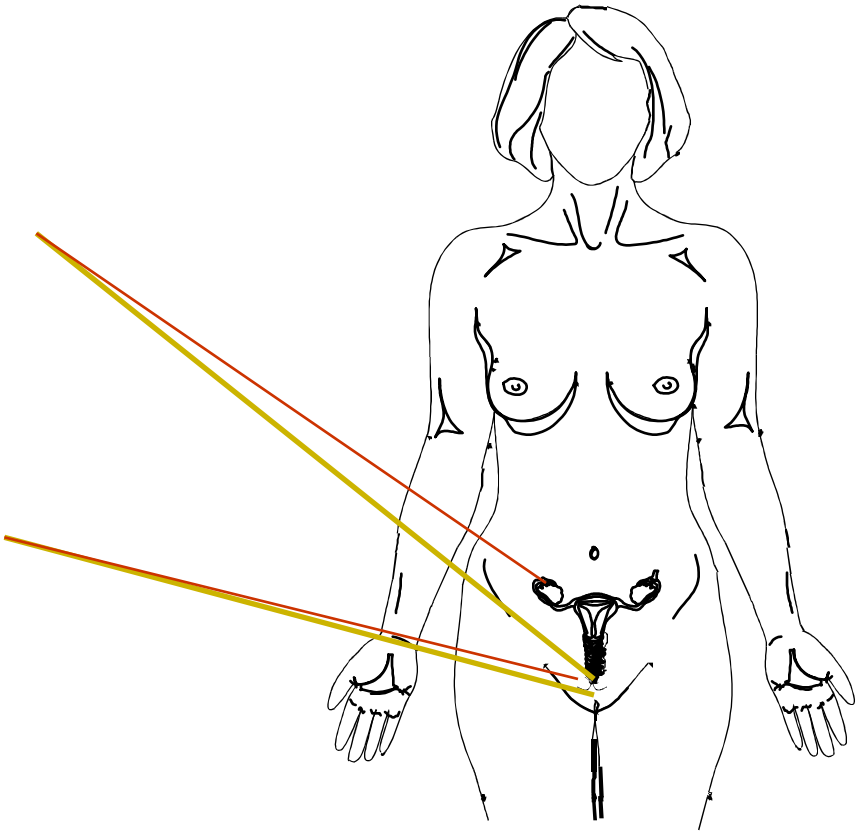
- Thin sheath of polyurethane plastic with polyurethane rings at either end. They are inserted into the vagina before intercourse.



Female condoms: mechanism of action

Prevent sperm from gaining access to female reproductive tract

Prevent microorganisms (ST1s) from passing from one partner to another



Female condoms: Advantages

- Effective immediately
- Do not affect breastfeeding
- Do not interfere with intercourse (may be inserted up to 8 hours before)
- Can be used as backup to other methods
- No method-related health risks
- No systemic side effects
- No prescription or medical assessment necessary
- Controlled by the woman

Female condoms: Non-contraceptive benefits

- Provides protection against STIs, including HIV with consistent and proper use.
- May help prevent cervical cancer
- Easy to use with little practice.
- No health risks associated with the method
- Can be used by almost every woman.

Female condoms: Disadvantages

- Cost
- Varied effectiveness as contraceptives depends on willingness to follow instructions
- User-dependent (require continued motivation and use with each act of intercourse)

Female condoms: Disadvantages *continued*

- Disposal of used condoms may be a problem
- Adequate storage must be available at the client's home
- Supplies must be readily available before intercourse begins
- Re-supply must be available

Female condoms: who can use WHO MEC CLASS1& 2

Women:

- Who prefer not to use hormonal methods or cannot use them (e.g., smokers over 35 years of age)
- Who prefer not to use IUDs
- Who are breastfeeding and need contraception
- Who want protection from STIs and whose partners will not use condoms

Female Condoms: MEC *continued*

Couples:

- Who need contraception immediately
- Who need a temporary method while awaiting another method (e.g., implants, IUD or voluntary sterilization)
- Who need a backup method
- Who have intercourse infrequently
- In which either partner has more than one sexual partner (at high risk for STIs, including HBV and HIV and AIDS), even if using another method

Female condoms: WHO MEC class 3&4.

Couples:

- In which pregnancy would pose a serious health risk to the woman
- Who are allergic to polyurethane
- Who need a highly effective method of contraception
- Who want a long-term contraceptive method
- Who want a method not related to intercourse
- Not willing to use correctly and consistently with each act of intercourse

Female condoms: client instructions

- Use a new condom every time you have intercourse.
- The female condom can be inserted up to 8 hours before intercourse.
- Wash hands with soap and water.
- Remove the condom from the package. Do *not* use teeth, knife, scissors or other sharp utensils to open package.
- Hold the condom with the open end down.
- Use the thumb and middle finger to squeeze the flexible ring at the closed end into a narrow oval.

Female condoms: client instructions *continued*

- With your other hand, spread the lips of your vagina.
- Insert the ring and sheath into the vagina.
- Use your index finger to push the ring as far as possible into the vagina.
- Insert a finger into the condom until it touches the bottom of the ring.
- Push the ring up past the pubic bone.
- Make sure the outer ring and part of the sheath are outside the vagina over the vulva.

Female condoms: client instructions *continued*

- Take care to be sure the penis enters the sheath and stays within the sheath during intercourse.
- Do not use the female condom with a male condom.
- After withdrawal, twist the outer ring and gently pull out the condom. Remove the condom before you stand up.
- Each condom should only be used once.
- Dispose of used condoms by placing in a waste container, in latrine or burying. Do *not* flush the condom down the toilet.

Female condoms: client instructions *continued*

- Keep an extra supply of condoms available. Do not store them in a warm place or they will deteriorate and may leak during use.
- Check date on condom package to ensure that it is not out of date.
- Do not use a condom if the package is broken or the condom appears damaged or brittle.

When to consider emergency contraception

If a client does not wish to be pregnant, and she:

- did not use a condom properly
- forgot to use a condom when she had intercourse
- thinks the condom may have been broken
- thinks that condom had a tear

DUAL PROTECTION AND DUAL METHOD

- ***Dual protection*** is using male or female condoms to prevent both pregnancy and HIV/ STIs.

- ***Dual method*** use is using two methods to prevent both pregnancy and infection.

Dual protection

- Dual protection against pregnancy and infection is of major importance to prevent transmission of HIV, and infection with STIs. Providers of family planning services may overlook the importance of disease prevention in their attempt to provide the most effective method of contraception, just as providers working in HIV/AIDS may tend to overemphasize protection from infection and forget about the need for contraception.

- For some men and women, it is easier to justify condom use when it is used for family planning, not disease prevention; for others who are aware of their individual infection risks, protection from disease is a main motivation for condom use.

Dual protection

- Always consider the need for *dual protection* from pregnancy and STI/HIV when providing health services to people with HIV.

- People living with HIV are often concerned about preventing infection (STI and HIV) and pregnancy at the same. Providers should be aware of these dual needs whenever they see people with HIV

Dual protection methods

Options for protection from infection and pregnancy :

- Male and female condoms are the only contraceptive method that can protect against both at once. Some family planning providers may be biased against using condoms for contraception because they feel condoms are not as effective at preventing pregnancy as other methods.

  Back-up method for condom failures, such as emergency contraception should be explained. Emergency contraceptive pills (ECPs) can be offered to minimize risk of pregnancy in case condom breaks or was not used, however in such cases women will still be exposed to STI/HIV risk.

Dual protection methods

- Condoms plus any other method of contraception – male or female condoms can be used with most other methods - hormonal methods, the IUD, and sterilization - for maximum pregnancy prevention. However providers should be aware that when pregnancy prevention is the primary goal, couples may use condoms less when they have a second, highly effective contraceptive method – they will need strong motivation and support to keep using condoms

- Family planning method without condoms - in mutually monogamous couples where both partners are HIV positive or negative. This is considered a safe strategy.

- Other safer sex (non penetrative sex) - This includes any sexual activities during which there is no direct genital contact or exchange of bodily fluids (semen, blood, or other secretions) and which prevents infection (STI/HIV) and unwanted pregnancy.

- Practice safer sex.

Method effectiveness for prevention of pregnancy and STD and HIV

Effectiveness of methods for pregnancy prevention

High	Low	None
•Implants •Vasectomy •Female Sterilization •IUD •Injectables •Oral contraceptives •LAM •Male condom •Female Condom	•Diaphragm •Fertility awareness based methods •Spermicides •Withdrawal	•No method

Voluntary Surgical Contraception (VSC)

What it is?

- VSC is a surgical means of permanently terminating fertility voluntarily.
- This can be conducted on the male or female client.

VSC: TYPES

- Tubal Ligation (Female Volutary Sterilization
  - Laparoscopy
  - minilaparatomy
- Vasectomy (Male voluntary sterilization)

Mechanism Of Action

- **Vasectomy**: In men the tubes through which sperms travel from the testes to the penis(vas deferens) are tied and cut so that sperm can no longer enter the semen that is ejaculated
- **Tubal Ligation**: In women both fallopian tubes are tied and cut using a modern operation Mini-Lap) so that the ovum cannot travel through them to meet the sperm and be fertilized

VSC: Effectiveness

Tubal ligation		Vasectomy	
Theoretical	Use effectiveness	Theoretical	Use effectiveness
99.8%	99.6%	99.9%	99.85%

Vasectomy- Advantages

- Surgery is relatively fast (usually less than 30 minutes);
- Very appropriate for couples who already have the number of children they want;
- Requires only a single procedure and therefore is inexpensive in the long term;
- Procedures are very safe, and major complications are rare;
- Does not require hospitalization;
- Does not interrupt love-making

Vasectomy Disadvantages

- May cause pain and skin discoloration in area of incision (treatable)
- May cause swelling and discoloration of scrotum (treatable)
- Sexual relations must cease until 2 or 3 days after the procedure and can resume then only if there is no discomfort;
- A condom or another method should be used for 3 months following the procedure

Protection against STI/HIV infection from vasectomy

- Vasectomy offers no protection against STI/HIV

Vasectomy- WHO MEC Class 1 and 2

Who can have vasectomy?

- In general, the majority of men who want vasectomy can have a safe and effective procedure in a routine setting, provided they have been counseled.
- They should also be able to give informed/written consent. Men who may consider sterilization include:
- Those who are certain that they have achieved their desired family size
- Men who want a highly effective permanent contraceptive method
- Men whose wives face unacceptable risk in pregnancy

Vasectomy-WHO MEC 4

- **Who should not have vasectomy?**
- There are no medical conditions that would absolutely restrict a man's eligibility for vasectomy. Some conditions and circumstances indicate that the procedure should be delayed, or that certain precautions be taken.
- Local infections (scrotal skin infection, balanitits, epididymitis, or orchitis)
- Current STI
- Systemic infection or gastroenteritis
- Men or couples who are not certain that they have completed their family size
- Men making decision due to social problems:
- Men or couple who have not understood that Vasectomy is permanent

Clients with following conditions will require a provider with extensive experience

- Previous scrotal injury
- Cryptorchidism (undescended testes)
- Diabetes
- Inguinal hernia

Routine follow-up for vasectomy

- 3 months after operation for semen analysis
- One week after the operation for removal of stitches

Signs of problems from vasectomy warranting immediate return to clinic

- Bleeding at the incision site or internally.
- Infection at the site of the incision or internally.
- Injury to abdominal organs.
- Blood clots in scrotum.

Types of Vasectomy Techniques

1. Scapel vasectomy
2. No – scapel vasectomy

Tubal ligation Advantages

- Private;
- Permanent
- Very appropriate for couples who already have the number of children they want;
- Requires only a single procedure and therefore is inexpensive in the long term;
- Procedures are very safe and major complications are rare

Tubal Ligation: Disadvantages

- Large studies indicate that less than 1% case experience serious complications, which may include: anesthesia-related problems (mostly related to over-sedation); hemorrhage uterine perforation; bowel/bladder injury; infection; and failure to occlude the tube (sterilization failure);

- Ectopic pregnancy is a potential and serious long-term complication. Although pregnancy is a rare complication post-VSC. if a woman does become pregnant as a result of sterilization failure there is a significant chance that the pregnancy will be ectopic

Tubal Ligation: Disadvantages

- Minor complications such as slight bleeding and wound infection occur in less than 5% of cases. Most complications can be avoided by provision of services which emphasize optimal infection practices thorough client screening and counseling; light sedation and local anaesthesia; careful monitoring of vital signs during and after the procedure (during recovery time); close attention to aseptic technique; and careful and gentle surgical technique.

Protection against STI/HIV infection from tubal ligation

- Tubal ligation offers no protection against STI/HIV

WHO MEC (CLASS 1 AND 2)

- **Who can have tubal ligation?**
- In general, the majority of women who want tubal ligation can have a safe and effective procedure in a routine in a health facility equipped the service, provided they have been counseled. They should also be able to give informed consent. Women who may consider tubal ligation include:
- Those who are certain that they have achieved their desired family size
- Women who want a highly effective permanent method of contraception
- Women for whom pregnancy presents unacceptable risk like:

Who can use…
WHO MEC Class 1 & 2

- women who have had four or more previous caesarean sections:
- Women with medical conditions
- Couples or women who understand and voluntarily give informed consent for the procedure.
- Who should not have tubal ligation?
- There are no medical conditions that would absolutely restrict a woman's eligibility for tubal ligation. Some conditions and circumstances indicate that the procedure should be delayed; or that certain precautions be taken.

Tubal ligation should be delayed in case of(MEC)

- Pregnancy
- Postpartum (between day seven and six weeks)
- Immediately/early postpartum if woman had severe pre-eclampsia, prolonged rupture of membranes (24 hours or more), sepsis, severe ante partum hemorrhage, or severe trauma to genital tract
- Complicated abortion (infection, haemorrhage)
- Current deep venous thrombosis
- Current ischemic heart disease
- Unexplained vaginal bleeding (before evaluation)

Tubal ligation should be delayed in case of(MEC) CONT…

- Malignant trophoblastic disease
- Current PID or purulent cervicitis
- Current gall bladder disease
- Acute respiratory disease
- Severe anaemia
- Acute respiratory disease
- Abdominal skin infection
- Evidence of peritonitis
- Women or couples who are not certain of their desired family size
- Women requesting tubal ligation because of social problems

Timing of the tubal ligation:

- Immediately after childbirth or within first seven days (if she made voluntary informed choice in advance)
- Six weeks or more after childbirth
- Immediately after abortion (if she made voluntary informed choice in advance)
- Any other time provided pregnancy is ruled out (but not between seven days and six weeks postpartum
- During caesarean section

Routine follow up for tubal ligation

- The client should be advised to come back one week after the operation for removal of stitches

Signs of problems from tubal ligation warranting immediate return to clinic:

- Severe bleeding at the incision site or internally
- Infection at the incision site or internally
- Injury to abdominal organs

Principles of clients counseling for VSC

- During counseling using skills of interviewing and counseling **BRAIDED** methodology is used as below;
  - **Benefit:** Permanent, Effective, No repeated decisions or expenses
  - **Risks:** Not 100% operations are very difficult to reverse and may not be successful.
  - **Alternatives:** All other reversible contraceptive methods available are explained
  - **Inquiries:** Client is encouraged to ask questions, myths and misinformation should be cleared before hand.

Principles *continued*

- **Decision: For** the method can change. Client should feel free to change her/his mind. Decision is made on personal basis not because of your partner.
- **Explanation:** of the entire procedure, side effects and possible complications should be given in detail, including any medication which will be used.
- **Documentation:** of all personal particulars, method and timing of the sterilization.

- **Treatment and outcome of complications for future reference signing of consent forms.**

Considerations to be made by a client before decision:

- Are there any situations in which you could imagine wanting a child later?

- **These may include:**
  - If you divorced.
  - If your present relationship ended and you had a new partner who wanted to have a child with you.
  - If one or more of your children died.
  - If your financial situation improved significantly.
  - If you wanted to fill the gap created when your children leave home.
  - Consider alternative methods of birth control which are very effective.
  - Discuss your decisions with your partner or talk to a friend or relative who has used the method. (optional)

Integrating FP and other RH (including STI and HIV/AIDS services

Rationale

- Client visiting for FP could have need for other services
- Assess for risk of HIV and other STIs to reduce missed opportunities
- Take opportunity to discuss other related matters on sex and sexuality
- Provide necessary information to all clients

Reasons for HIV/RH integration

- Both cater for the same clientelle-women and men of reproductive age
- Same providers can be oriented on minimum packages in both areas
- FP programmes effective entry points for most STI, HIV and reproductive tract cancer services
- Integrated services a good approach to access hard-to reach clients
- Overcome stigma associated with stand alone services

Drug interaction and hormonal contraception

- NNRTIs e.g. Nevirapine reduce hormonal levels but not significantly enough to reduce effectiveness of hormonal contraceptives
- Efavirenz increases hormonal levels in blood-does not reduce efficacy of contraceptives
- PIs e.g. Ritonavir and ritonavir boosted Pis e.g. Lopinavir+Ritonavir reduce hormonal levels low enough to affect contraception except for DMPA and NET-EN
- NNRTIs are classified as category 2 for COCs, POPs, Implants and NET-EN, and category 1 for DMPA
- Ritonavir and Ritonavir boosted PIs are category 3 for pills, category 2 for implants and NET-EN and category 1 for DMPA