# 2021

# **Family Planning Methods**

# **Contraception methods**













Condom

Female condom

contracepion

Hormonal ring

UID



injection

sterilization



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Implant

Coitus interruptus

Calendar rhythm method

Vaginal douche

Contraceptive patch

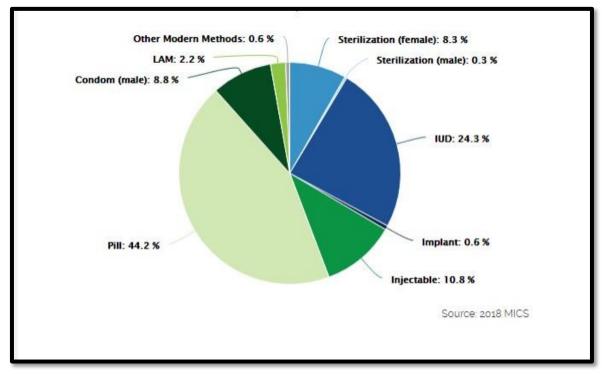
Diaphragm / cap



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# Introduction:

Family planning enables individuals and couples to determine the number of children they would like to have through the spacing and timing of their births. Family planning is a human right, as every individual and family has the basic right to be provided with and have access to the services, supplies, and information they need to plan their families. Family planning methods also known as contraceptive methods or birth control methods.



# **Family Planning In Iraq:**

# Figure (1): family planning methods 2020 uses in Iraq

# **Benefits of Using Family Planning methods:**

Family planning provides many benefits to mother, children, father, and the family.

#### Mother

• Enables her to regain her health after delivery.

- Gives enough time and opportunity to love and provide attention to her husband and children.
- Gives more time for her family and own personal advancement.
- When suffering from an illness, gives enough time for treatment and recovery.

#### Children

- Healthy mothers produce healthy children.
- Will get all the attention, security, love, and care they deserve.

#### Father

- Lightens the burden and responsibility in supporting his family.
- Enables him to give his children their basic needs (food, shelter, education, and better future).
- Gives him time for his family and own personal advancement.
- When suffering from an illness, gives enough time for treatment and recovery.

# Family planning "Contraceptive" Methods :

Contraceptive methods can be divided into four categories :

### **First: Hormonal contraceptive methods**

#### **Includes 5 types:**

- 1. Oral contraceptives (pills)
- 2. Vaginal ring
- 3. Transdermal patch
- 4. Injected hormones
- 5. Hormonal IUDs

#### **Oral contraceptives (pills)**

- Pills can be taken to prevent pregnancy
- Pills are safe and effective when taken properly
- Pills are over 99% effective

#### How does the pill work:

- Stops ovulation
- Thins uterine lining

– Thickens cervical mucus

# Types of oral contraceptives

- 1. Constant-dose combination pill
  - Contains both estrogen and progestin
  - Dose of each is constant throughout cycle
- 2. Progestin-only pill
  - Low dose of progestin and no estrogen
  - For women who should not take estrogen (breastfeeding, high b.p., at risk for blood clots, smoke)

# How to use oral contraceptives

- Take pill at the same time each day
  - If you miss 1 pill: take missed pill as soon as you remember, and then take next pill at the regular time
  - If you miss >1 pill: consult health care practitioner for advice
- Don't skip pills, regardless of whether or not you are having sex

# **Advantages of Birth Control Pills**

- 1. Prevents pregnancy
- 2. Eases menstrual cramps
- 3. Shortens period
- 4. Regulates period
- 5. Decreases incidence of ovarian cysts
- 6. Prevents ovarian and uterine cancer
- 7. Decreases acne

# **Disadvantage of Birth Control Pills**

- 1. cannot prevent sexually transmitted infections (STIs).
- 2. it can cause other hormonal adverse effects such as:
- Nausea
- Acne
- Breast tenderness or enlargement
- Weight gain
- Headaches

#### vaginal ring

- 95-99% Effective A new ring is inserted into the vagina each month
- Does not require a "fitting" by a health care provider, does not require spermicide, can make periods more regular and less painful, no pill to take daily, ability to become pregnant returns quickly when use is stopped.
- Each ring is used for one menstrual cycle (once a month), which consists of 3 weeks of continuous use followed by a ring-free week to allow for menses
- The vaginal ring is not recommended for women with uterine prolapse or lack of vaginal muscle tone.



#### Advantages of vaginal ring:

- 1. A reversible and highly effective birth control method
- 2. Once-a-month regimen; no daily contraceptive routine required
- 3. Regulates menstrual cycles
- 4. Does not interfere with intercourse
- 5. Does not require daily attention
- 6. Expected to provide other benefits similar to oral contraceptives; research is needed

#### **Disadvantages vaginal ring:**

- 1. Does not protect against STIs
- 2. May cause irregular bleeding or spotting
- 3. May cause side effects such as headache, nausea, or breast tenderness
- 4. May cause vaginal discomfort
- 5. The ring may be expelled from the vagina but this is uncommon

#### **Transdermal patch**

- skin patch worn on the lower abdomen, buttocks, upper arm
- releases hormones into the bloodstream
- Implants are placed in the body filled with hormone that prevents pregnancy
- Physically inserted in simple 15 minute outpatient procedure.
- Take it once a week.
- 99.95% effectiveness rate



#### Advantages of the patch

- It is simple to use
- Highly effective if used properly, with almost 100 percent protection
- Needs to be applied only once a week and not in relation to intercourse, improving patient compliance
- Does not detach with exposure to water or sweat
- May improve bone strength due to the estrogen content
- May reduce the risk of benign breast disease, as well as uterine endometrial and ovarian cancers

#### **Disadvantages of the patch**

- It does not provide protection against sexually transmitted infections (STIs), including HIV
- Must be prescribed by a health care provider
- Interacts with some medications such as rifampin (an anti-tuberculosis antibiotic), corticosteroids, anticonvulsants, and herbal supplements.
- The return of fertility may be delayed by up to two months after stopping the use of the patch
- Skin irritation may occur in some women

#### **Injected hormones**

Injectable contraceptives contain female sex hormones that are injected into muscle and released into the blood gradually, thereby providing contraception over a period of time. Injectable are among the most effective methods of contraception.

There are two types of injectable contraceptives:

1. **Progestin-only injectables** contain only progestin, which is a synthetic form of the female sex hormone progesterone. They are administered every two or three months, depending on the product.

Advantages:

- Highly effective in prevent pregnancy
- Decrease risk of endometrial cancer
- Injected every three weeks

Disadvantages:

- Irregular menstrual cycle or no period
- Increased appetite causing weight gain for some women.
- Delayed return of fertility
- No protection against STIs.
- depression
- 2. **Combined injectables** contain both progestin and estrogen. They are administered once per month

# Hormonal IUDs

- IUD stands for Intrauterine Device (basically: a device inside your uterus). It's a small piece of flexible plastic shaped like a T.
- hormonal IUDs prevent pregnancy by changing the way sperm cells move so they can't get to an egg. If sperm can't make it to an egg, pregnancy can't happen. hormonal IUDs use the hormone progestin to prevent pregnancy. Progestin is very similar to the hormone progesterone that our bodies make naturally.
- There are many type of hormonal IUDs and it's work between (3-7 years).
- more than 99% effective.

# Advantages:

- Reduced menstrual bleeding, in some cases up to 90%

- Reduced cramps
- In a few cases, stopped periods altogether
- Prevention of endometrial hyperplasia (thickening of uterine lining) and endometrial cancer (cancer of uterine lining - this can stem from endometrial hyperplasia)
- Relieved endometriosis (where the tissue of your uterine lining grows outside the uterus)

#### **Disadvantages:**

Acne Irregular periods Mood changes Nausea Vaginal discharge (uncommon) Ovarian cysts (uncommon) Mild to moderate cramping and irritation in the first few months

### Second :Non hormonal contraceptive (Barrier Methods)

- Prevents pregnancy blocks the egg and sperm from meeting
- Barrier methods have higher failure rates than hormonal methods due to design and human error.

Include 7 types:

- 1. Male Condoms
- 2. cervical barrier devices (Diaphragm and Cervical Cap)`
- 3. Spermicide
- 4. Intrauterine Devices (IUD)
- 5. Abstinence
- 6. Natural Family Planning Methods

### Male Condoms

- Most common and effective barrier method when used properly
- Latex and Polyurethane should only be used in the prevention of pregnancy and spread of STD's (including HIV)
- Perfect effectiveness rate = 97%
- Typical effectiveness rate = 88%
- Latex and polyurethane condoms are available
- Combining condoms with spermicides raises effectiveness levels to 99%.



# Advantages:

- 1. Available widely without a prescription
- 2. Inexpensive
- 3. Latex condoms protect against STIs
- 4. Allows the male partner to assume some responsibility for birth control
- 5. Both partners can participate in their use
- 6. May help the wearer avoid premature ejaculation

### **Disadvantages:**

- 1. Must be available at time of intercourse
- 2. May slip or break during intercourse
- 3. Must be stored and handled properly
- 4. People with latex allergies cannot use latex condoms, but may be able to use non-latex condoms
- 5. May reduce sensitivity for either partner
- 6. May interfere with the maintenance of an erection

# cervical barrier devices (Diaphragm and cervical cap):

#### Diaphragm

- Covering the cervix is one of oldest methods of contraceptives history
- A shallow silicone cup inserted into the vagina to prevent pregnancy
- Safe, effective, and convenient
- Lasts up to two years
- Comes in different sizes of cervixes
- Method is usually combined w/spermicide



#### Advantages:

- Does not contain hormones
- Is inserted before sex and does not interrupt sex play
- Usually cannot be felt by either partner
- Can last up to 2 years

#### Disadvantages:

- Does not protect against STI
- It is not as effective at preventing pregnancy as other methods.
- Must be used every time you have sex.
- Can become loose during sex.
- Requires a visit to your health care provider for fitting and prescription.
- Cannot be used when you have your period.

### **Cervical Cap**

- Covering The Cervix Is One Of Oldest Methods Of Contraceptives History
- Cover The Cervix Only
- Covers Upper Vaginal Wall Behind Cervix Underneath Pubic Bone
- Method Is Usually Combined W/Spermicide



#### Advantages:

- Does not contain hormones
- Women can insert it ahead of time so do not have to interrupt sex play
- Can last up to 2 years

#### **Disadvantages:**

- Does not protect against STI.
- Not commonly available
- It is not as effective at preventing pregnancy as other methods, especially for those who have given birth.
- Must be used every time you have sex
- May be difficult to insert
- Requires a visit to your health care provider for fitting and prescription
- Cannot be used when you have your period.

#### How to use cervical barrier devices:

- Before each use, check the device for holes by holding it up to the light, and then filling it with water. If you detect any holes, do not use it.
- Place a small amount of spermicide inside the device.
- Insert the device into your vagina by hand. The device should fit snugly over the cervix.
- To use for another sex act, leave the device in place and add more spermicide.
- Timing is important. You must leave both diaphragm and cervical cap in place for at least 6 hours after the last time you had sex, but:
  - The diaphragm should be removed **within 6-24 hours** after the last time women had sex
  - $\circ~$  The cervical cap should be removed within **6-48 hours** after the last time women had sex

• Wash the device with soap and warm water after each use, dry and store in its container.

#### Spermicide

- Chemicals kill sperm in the vagina
- Different forms: (foam, jelly)
- Only 76% effective (used alone), should be used in combination with another method i.e., condoms

#### How to use:

- They are placed in the vagina no more than one hour before intercourse.
- leave them in place at least six to eight hours after intercourse.
- can use a spermicide in addition to a male condom, diaphragm, or cervical cap

#### advantages:

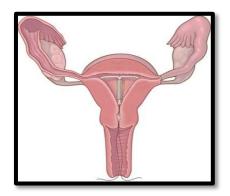
- Does not require a prescription
- May be discontinued at any time

#### **Disadvantages:**

- May cause irritation in the vagina or on the penis
- Can cause an allergic reaction
- May interrupt sexual activity
- Not recommended for preventing STIs

### **Intrauterine Devices (IUD)**

- T-shaped object placed in the uterus to prevent pregnancy
- A T-Shaped Devise That Is Inserted Into The Uterus
- Can Remain In For 10 Years of Protection
- Must Be Inserted By A Doctor
- 99.9 % Effective Against Pregnancy
- Keeps Sperm From Joining Egg
- Prevents The Fertilized Egg From Implanting Into The Uterus.



### **Advantages :**

- One of the most effective forms of birth control
- Reversible
- Can be in for 3-10 years depending on type inserted
- Low cost when averaged over duration of insertion
- Option for women who are breastfeeding or cannot take estrogen
- Reduces risk of endometrial cancer

### **Disadvantages:**

- No Protection Against STD'S
- May cause irregular bleeding/spotting when first inserted
- Large up-front cost
- Pain/discomfort during insertion
- Rare risks with the insertion could include infection, perforation of the uterus, or expulsion of the IUD

#### Abstinence

- Only 100% method of birth control
- Abstinence is when partners do not engage in sexual intercourse
- Communication between partners is important for those practicing abstinence to be successful

#### **Natural Family Planning Methods**

- Methods of monitoring and interpreting natural biological markers of fertility
- To help determine the fertile and infertile times of a woman's menstrual cycle
- Information can be used to achieve or avoid pregnancy

There are three major classifications of natural family planning methods:

- 1. Periodic abstinence (fertility awareness) method
- 2. Breastfeeding or lactational amenorrhoea method (LAM)
- 3. Coitus interruptus (withdrawal or pulling out) method.

#### Periodic abstinence (fertility awareness) method

fertility awareness methods (FAMs ) depend on identifying the beginning and end of the fertile period of the menstrual cycle. during the menstrual cycle, the female hormones oestrogen and progesterone cause some observable effects and symptoms:

- Oestrogen produces alterations in the cervical mucus, which changes from thick, opaque and sticky to thin, clear and slippery as ovulation approaches.
- Progesterone produces a slight rise in basal body temperature (temperature at rest) after ovulation. Otherwise, the function of

progesterone on the cervical mucus is just the opposite effect of oestrogen — it makes the cervical mucus thick, opaque and sticky.

Observation of these changes provides a basis for periodic abstinence methods. There are three common techniques used in periodic abstinence methods, namely:

- 1. Rhythm (calendar) method
- 2. Basal body temperature (BBT) method
- **3.** Cervical mucus (ovulation) method.

# Rhythm (calendar) method

This method is the most widely used of the periodic abstinence techniques. The **calendar method** is a calculation-based approach where previous menstrual cycles are used to predict the first and the last fertile day in future menstrual cycles.

It is important for you to know that before relying on this method a woman needs to record the number of days in each of her menstrual cycles for a period of at least 6–8 months.

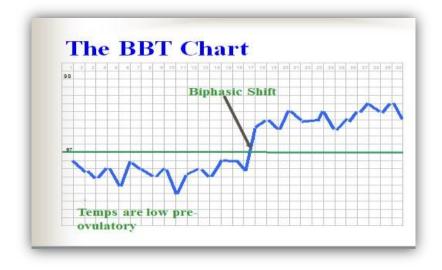
### **Basal body temperature (BBT) method**

A woman's resting body temperature goes up slightly after the release of an egg (ovulation) by <u>**about 0.3–0.5**°C</u>. She is not likely to become pregnant from 3 days after this temperature rise through the start of her next monthly bleeding. Her temperature stays higher until the beginning of her next monthly bleeding.

# Effectiveness of BBT

BBT is about 98% effective if the woman uses the method correctly

To use the basal body temperature method effectively, need to know and teach women how to read a thermometer and record the results on a special chart or graph paper. To avoid conception, the woman and her partner abstain from intercourse, or use a barrier method, on the day of the temperature rise and for 3 days following.



### Cervical mucus method (CMM)

The cervical mucus method is based on careful observation of mucus patterns during the course of menstrual cycle.

Before ovulation, cervical secretions change — creating an environment that helps sperm travel through the cervix, uterus and fallopian tubes to the egg.

By recognizing the changing characteristics of cervical mucus, woman can predict when will ovulate, which can help to determine when most likely to conceive or to prevent conceive and must avoid unprotected sex or abstinence.



# Advantage of fertility awareness methods:

- Essentially free
- No medical side effects
- Does not interrupt sexual activity

 Woman gains awareness about her body and natural cycles, which can increase comfort w/sexuality

# Advantage of fertility awareness methods

- No STI protection
- Requires some degree of discipline in order to keep track of calendar/charts, etc.
- Need to abstain from intercourse or use a backup method during fertile days

# Breastfeeding or lactational amenorrhoea method (LAM)

- Is a family planning method based on natural effect of breastfeeding on fertility.
- Lactational means related to breastfeeding, amenorrhea means not having monthly bleeding.
- Requires breastfeeding often, day and night

# Criteria for use:

- Monthly bleeding has not returned.
- Baby is fully or nearly fully breast fed
- Baby is less than 6 months old.

# **Contraindication of LAC**

- Women who have malnutrition
- Women who have illness such as HIV
- Woman who is unable to do nearly full breastfeed or can not fully breastfeed her infants

# **Effectiveness:**

- Depends on the user
- Correct use 1/100 get pregnancies
- Incorrect use 2/100 pregnancies

# Advantages of LAM

Help to protect against the risk of pregnancy

- Not expensive
- Encourage breastfeeding patterns with health benefits for both mother and baby.

# **Coitus Interruptus (Withdrawal)**

**Define**: Coitus interruptus (withdrawal) involves the male partner withdrawing his penis from the woman's vagina before he ejaculates. **Advantage**: it is a good choice for couples who do not have another contraceptive available

**Effectiveness**: is similar to barrier methods and depends on the man's ability to withdraw his penis before ejaculation. The percentage of women who experience an unintended pregnancy within the first year of typical use (failure rate) of withdrawal is about 27%.

**Disadvantage**: Coitus interruptus does not protect against STIs or human immunodeficiency virus (HIV) infection.

#### **Third: Emergency Contraception**

Emergency contraception pills can reduce the chance of a pregnancy by 75% if taken within 72 hours of unprotected sex.

#### How to use:

- Floods the ovaries with high amount of hormone and prevents ovulation
- Alters the environment of the uterus, making it disruptive to the egg and sperm
- Two sets of pills taken exactly 12 hours apart

# Fourth: Surgical methods (Sterilization):

Procedure performed on a man or a woman permanently sterilizes

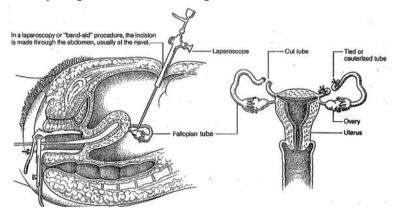
# **Female : Tubal Ligation**

-Surgical procedure performed on a woman

-Fallopian tubes are cut, tied, cauterized, prevents eggs from reaching sperm

-Failure rates vary by procedure, from 0.8%-3.7%

-May experience heavier periods



# Advantages of tubal ligation

Advantages of surgical sterilisation (tubal ligation) include the following.

- It is a very effective and permanent method of contraception.
- It does not affect sex drive.
- It doesn't interfere with spontaneity of sexual intercourse.
- There is no affect on your normal hormonal rhythms or periods.

# Disadvantages of tubal ligation

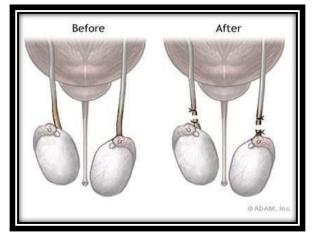
Some of the disadvantages of surgical sterilisation include the following.

- It requires surgery, usually under a general anaesthetic.
- There is a risk, albeit low, of surgical complications such as internal bleeding, infection or damage to other organs.
- If the procedure fails and a pregnancy occurs (this is rare), there is an increased risk that it will be an **ectopic pregnancy**
- Reversing the procedure is difficult, so should only be undertaken by women who are absolutely certain that they do not want any (more) children.

Menstrual periods do not become regular until ovulation consistently occurs with them (menstruation is not dependent on ovulation), and this does not tend to happen until 1 to 2 years after menarche. This is one reason why estrogen-based oral contraceptives are not commonly recommended until a girl's menstrual periods have become stabilized or are ovulatory (to prevent administering a compound to halt ovulation before it is firmly established). • It does not protect you from sexually transmitted infections (STIs)

# Male : Vasectomy

- -Male sterilization procedure
- -Ligation of Vas Deferens tube
- -No-scalpel technique available
- -Faster and easier recovery than a tubal ligation
- -Failure rate = 0.1%, more effective than female sterilization



# Advantage:

- Failure is less than 1%
- Reason for failure can be:
  - Unprotected intercourse soon
  - Failure to occlude the vas
  - Recanalization
- Safer and more effective than tubal ligation
- 0.5 deaths per 100,000 vasectomies

# **Complications of Vasectomy**

- Side effects are uncommon to very rare
- Testicular and scrotal pain lasting for months
- Surgical site infection
- Hematoma

Role of nurse in family planning in primary health care centers and hospitals, including health education and counseling.

- The nurse can play an important role in helping a woman and her partner choose a method of contraception that is acceptable to both.
- In addition to completing a history and assessing for any medical contraindications to specific methods, the nurse can spend time with a woman learning about her lifestyle, personal attitudes about particular contraceptive methods, religious and cultural beliefs, personal biases, and plans for future childbearing to help the woman select a particular contraceptive method.
- Once the woman chooses a method, the nurse can help her learn to use it effectively. —Patient Teaching: Using a Method of Contraception provides guidelines for helping women use a method of contraception effectively.
- The nurse also reviews any possible side effects and warning signs related to the method chosen and counsels the woman about what action to take if she suspects she is pregnant.
- In many cases, the nurse is involved in telephone counseling of women who call with questions and concerns about contraception.