

Family planning

Optimal Birth

Spacing Interval

Keys to Reducing Maternal and Child Mortality

- **The Problem—**
 - Births are risky when they are:
 - “Too many”
 - “Too close together”
 - Or when they occur among women who are:
 - “Too young”
 - “Too old”
- **One Solution—Avoid “Too close together” through an Optimal Birth Spacing Interval**

What Is Optimal Birth Spacing?

- The length of time needed between births to minimize the risks for adverse health outcomes, new research indicates this is “three years or longer.”
- A way to address family planning that does not interfere with many cultural norms.

Significant Health Benefits

For Children

■ Lower risk for:

1. Stunted And Underweight Child
2. Small For Gestational Age
3. Low Birth Weight
4. Preterm Birth
5. Child Death
6. Infant Death
7. Neonatal Death
8. Fetal Death

For Mothers

■ Lower risk for:

1. Malnutrition From Overlap of Pregnancy and Breastfeeding
2. Puerperal Endometritis
3. Premature Rupture of Membranes
4. Anemia
5. 3rd Trimester Bleeding
6. Maternal Death

Benefits of Optimal Birth Spacing

1. Contributes to preserving the health and fertility of women and their overall quality of life
2. Contributes to improving children's lives by increasing their access to adequate food, clothing, housing, and educational opportunities
3. Decreases a woman's work burden
4. Provides a cost-effective means of improving health and quality-of-life compared with other investments

Issue: Birth Spacing Decisions Are Complex

Focus group discussions from Peru, Bolivia, India, Pakistan, and Egypt show:

- Beliefs in favor of Optimal Birth Spacing:
 1. Concern for health of mother and baby
 2. Economic considerations

- Barriers to Optimal Birth Spacing:
 1. Gender inequity
 2. Cultural expectations and norms as expressed by mothers-in-law and community leaders
 3. Erroneous beliefs about modern contraception

Optimal Birth Spacing Counseling Recommendations

Women and Couples should be counseled:

- About the health and economic benefits of spacing their children
- Waiting three years from the birth of the last child before getting pregnant

Summary

■ Women and men have the right to know that

Optimal Birth Spacing is associated with:

1. Lower risk for perinatal, neonatal, infant mortality
2. Lower risk for poor nutritional outcomes
3. Lower risk for maternal morbidity and mortality.

Objectives of FP Client Assessment

Assess clients prior to providing FP services to determine:

1. That the client is not pregnant
1. Whether any conditions requiring precaution exist for use of a particular method

FP Client Assessment: Need for STD Protection

It is important to educate all clients about:

- High-risk behaviors, and
- The protective benefits of condom use (and the limited effectiveness of diaphragms and spermicides).

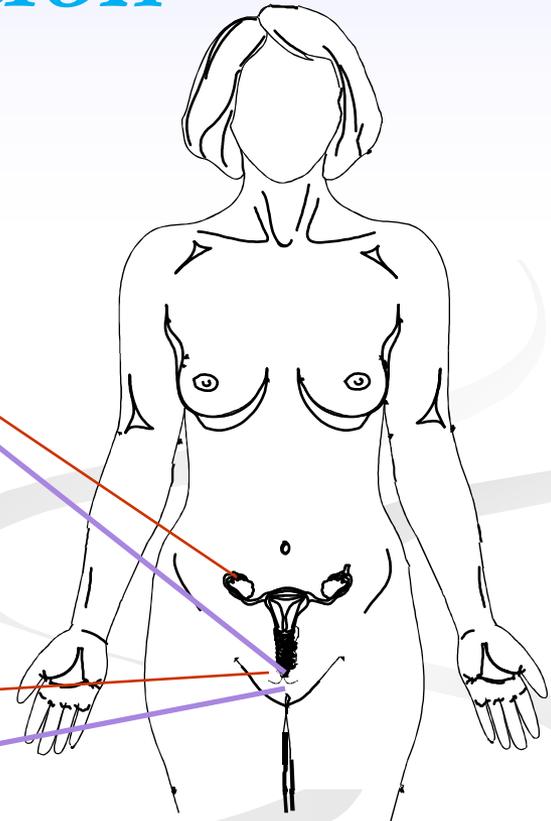
Male Condoms: Definition

- Thin sheaths of rubber, vinyl or natural products which may be treated with a spermicide for added protection.
- *Condoms differ in such qualities as shape, color, lubrication, thickness, texture and addition of spermicide.*

Male Condoms: *Mechanisms of Action*

*Prevent sperm from
gaining access to female
reproductive tract*

*Prevent microorganisms
(STDs) from passing from one
partner to another (latex and
vinyl condoms only)*



Male Condoms: Contraceptive Benefits

1. Effective immediately
2. Do not affect breastfeeding
3. Can be used as backup to other methods
4. No method-related health risks
5. No systemic side effects
6. Widely available (pharmacies and community shops)
7. No prescription or medical assessment necessary
8. Inexpensive (short-term)

Male Condoms: Non-contraceptive Benefits

1. Promote male involvement in family planning
2. Only family planning method that provides protection against STDs (latex rubber and vinyl condoms only)

Who Can Use Male Condoms

1. Men who wish to participate actively in family planning
2. Couples who need contraception immediately
3. Couples who need a temporary method while awaiting another method (e.g., implants, IUD or voluntary sterilization)
4. Couples who need a backup method
5. Couples who have intercourse infrequently

Combined Injectable Contraceptives (CICs) Types of CICs

■ *Cyclofem:*

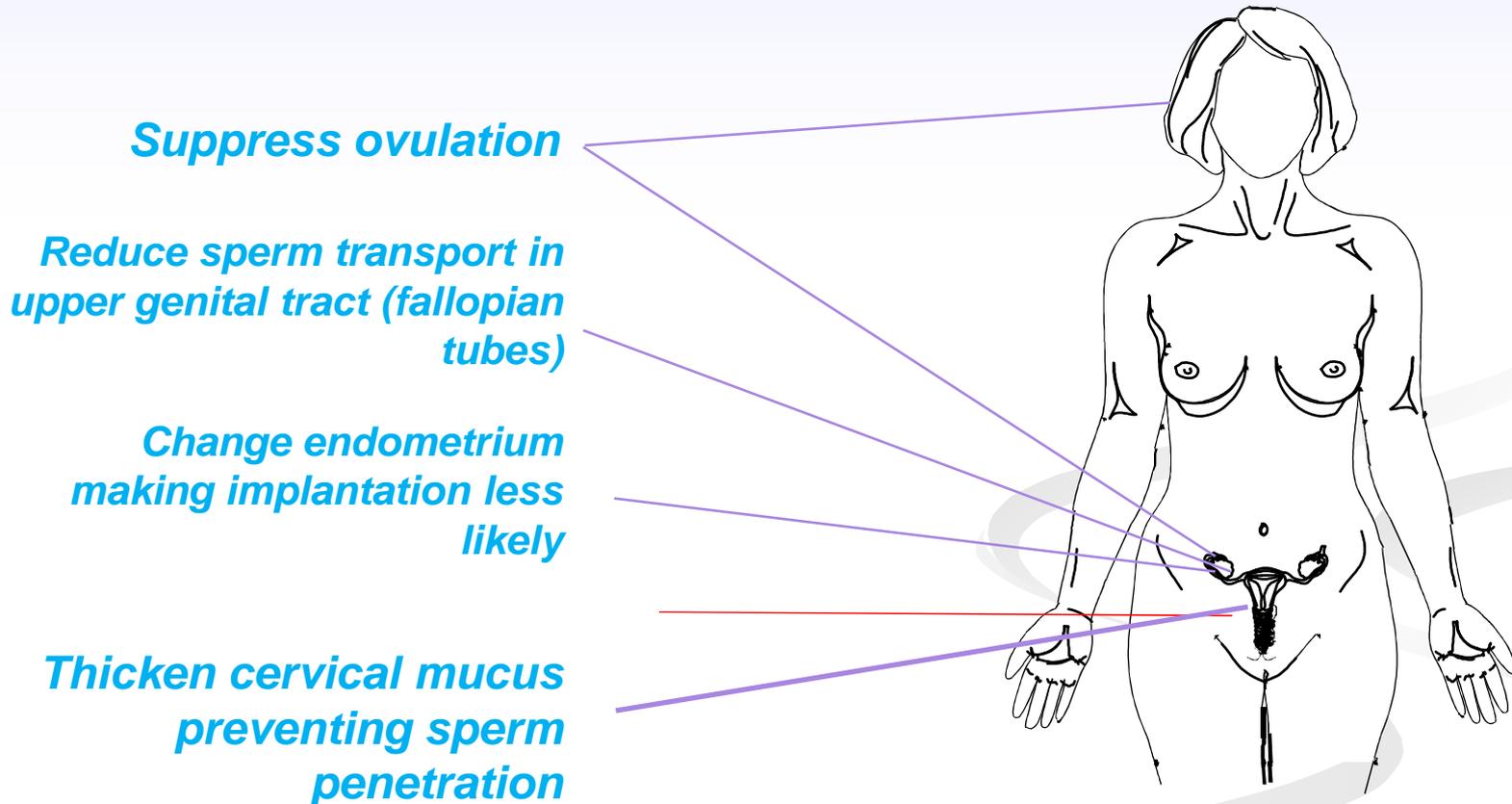
- *25 mg depot-medroxyprogesterone acetate and 5 mg estradiol cypionate injected (IM) once a month*

■ *Mesigyna:*

- *50 mg norethindrone enanthate and 5 mg estradiol valerate injected (IM) once a month*

Combined Injectable Contraceptives

CICs: Mechanisms of Action



Combined Oral Contraceptives (COCs)

COCs: Contraceptive Benefits

1. Highly effective when taken daily
2. Effective immediately if started by day 7 of menstrual cycle
3. Pelvic examination not required to initiate use
4. Do not interfere with intercourse
5. Few side effects
6. Convenient and easy to use
7. Client can stop use
8. Can be provided by trained non-medical staff

COCs: Common Medical Barriers to Service Delivery

1. Inappropriate contraindications (thyroid disease, fibroids, diabetes, hypertension, etc.)
2. Age restrictions (young and old)
3. Who can provide (physicians or nurses only)
4. Follow-up restrictions (BP required each visit)

Diaphragms: Definition:

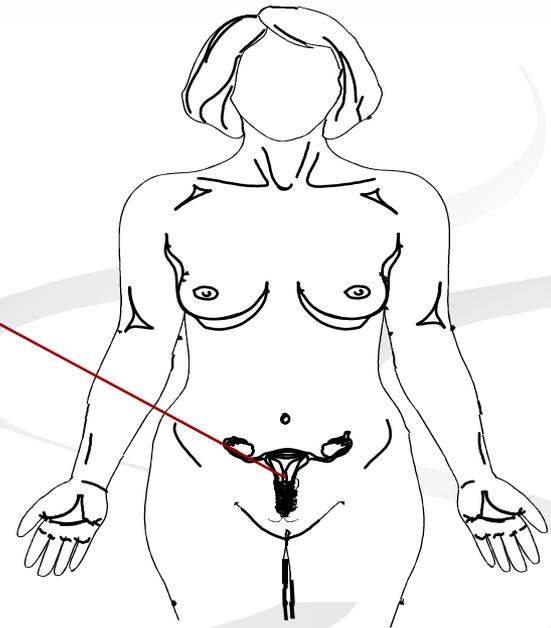
A dome-shaped latex (rubber) cup that is inserted into the vagina before intercourse and covers the cervix

Types of Diaphragms

- *Flat spring (flat metal band)*
- *Coil spring (coiled wire)*
- *Arching spring (combination metal spring)*

Diaphragms: Mechanism of Action

Prevent sperm from gaining access to upper reproductive tract (uterus and fallopian tubes) and serve as holder for spermicide



Diaphragms: Contraceptive Benefits

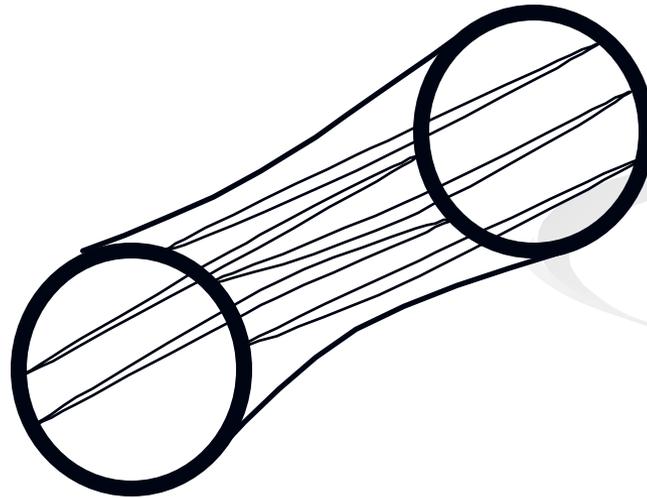
1. Effective immediately
2. Do not affect breastfeeding
3. Do not interfere with intercourse (may be inserted up to 6 hours before)
4. No method-related health risks
5. No systemic side effects

Diaphragms: Non-contraceptive Benefits

- *Some protection against STDs (e.g., HBV, HIV/AIDS) especially when used with spermicide.*

Female Condoms: Definition

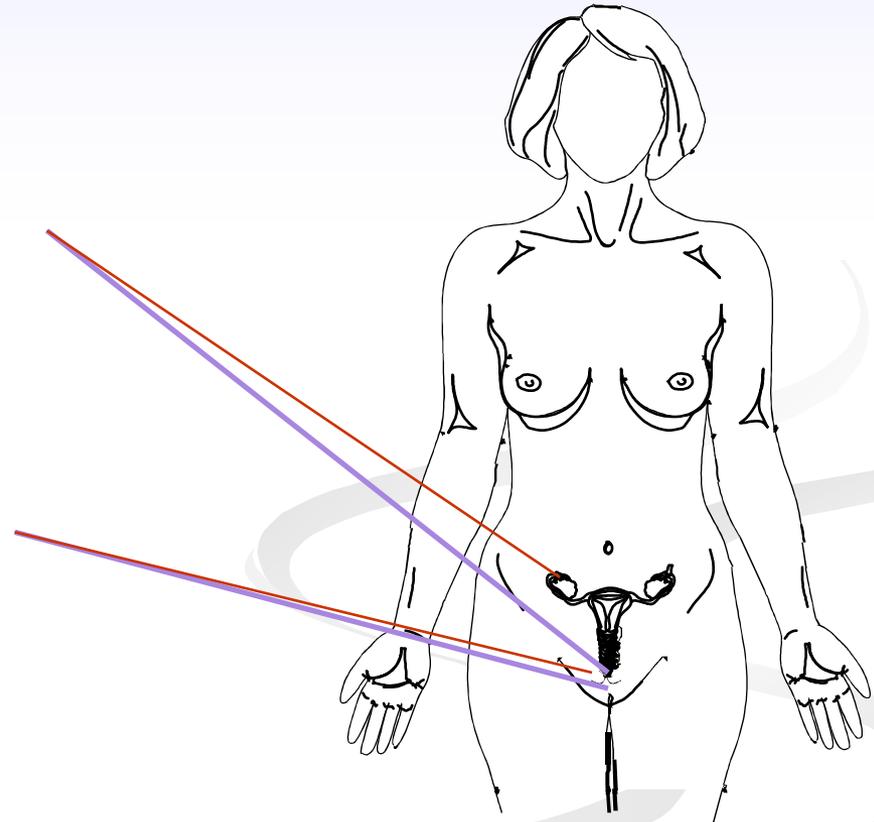
- *Thin sheath of polyurethane plastic with polyurethane rings at either end. They are inserted into the vagina before intercourse.*



Female Condoms: Mechanisms of Action

*Prevent sperm from
gaining access to
female reproductive
tract*

*Prevent microorganisms
(STDs) from passing from
one partner to another*



Female Condoms: Contraceptive Benefits

1. Effective immediately
2. Do not affect breastfeeding
3. Do not interfere with intercourse (may be inserted up to 8 hours before)
4. Can be used as backup to other methods
5. No method-related health risks
6. Controlled by the woman

Intrauterine Devices: (IUDs)

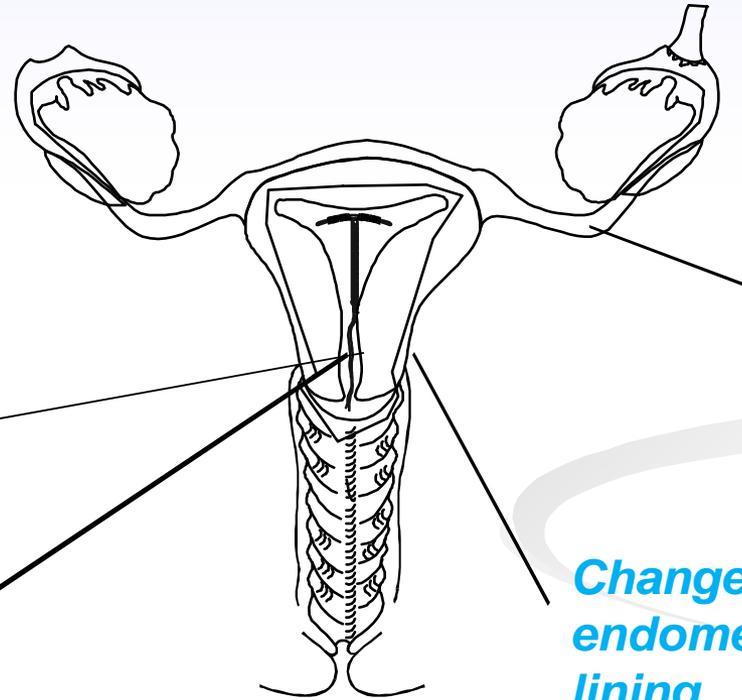
IUDs Around the World

100 million users worldwide



Source: Treiman et al 1995.

Copper IUDs: Mechanisms of Action



*Interfere with ability
of sperm to pass
through uterine
cavity*

*Thicken cervical
mucus*

*Interfere with
reproductive process
before ova reach
uterine cavity*

*Change
endometrial
lining*

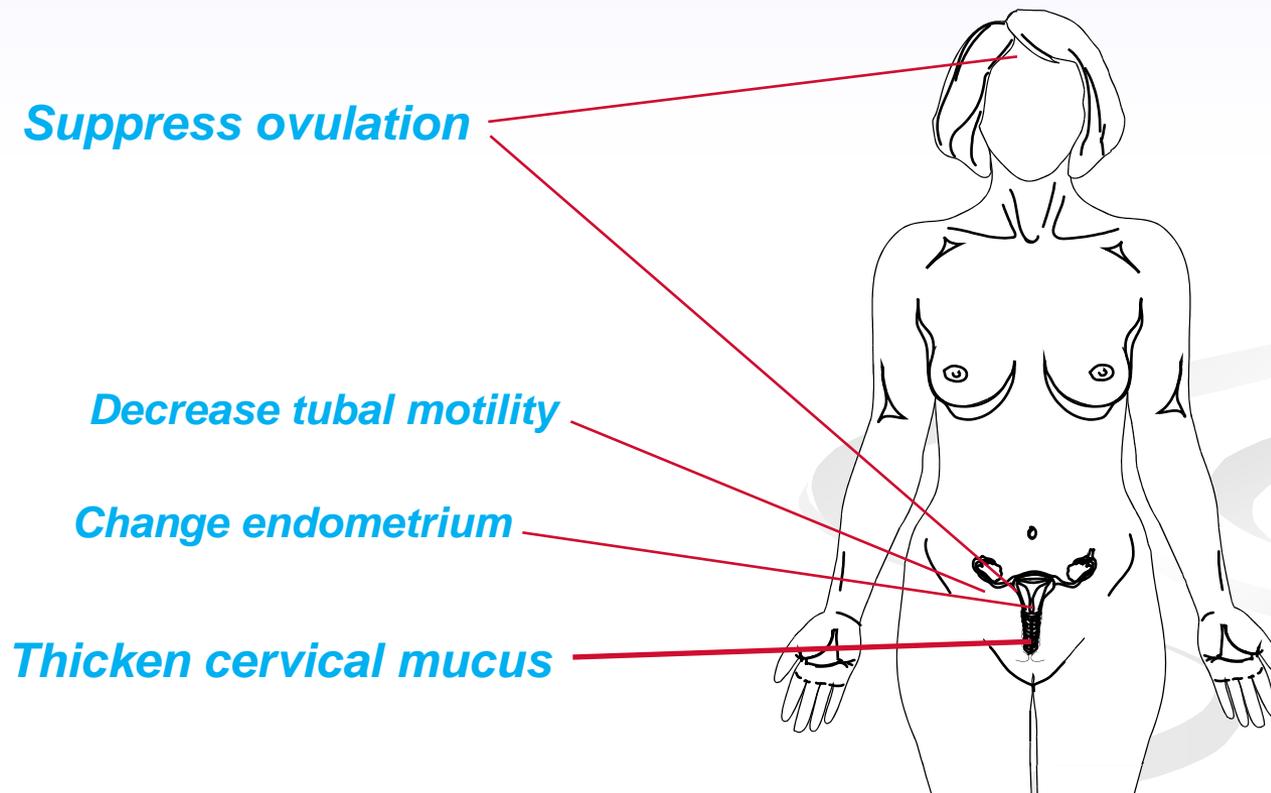
IUDs: Contraceptive Benefits

1. Highly effective (**Copper T 380A**)
2. Effective immediately
3. Long-term method (up to 10 years protection with Copper T 380A)
4. Do not interfere with intercourse
5. Immediate return to fertility upon removal
6. Do not affect breastfeeding

IUDs: Non-contraceptive Benefits

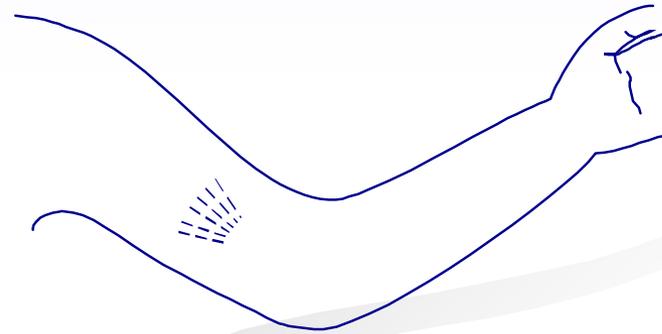
- *Decrease menstrual cramps (progestin-releasing only)*
- *Decrease menstrual bleeding (progestin-releasing only)*
- *Decrease ectopic pregnancy (except Progestasert)*

Norplant Implants: Mechanisms of Action



Norplant Implants

Six thin, flexible capsules filled with levonorgestrel (LNG) that are inserted just under the skin of a woman's upper arm



Norplant Implants: Contraceptive Benefits

1. Highly effective (0.05–1 pregnancies per 100 women during the first year of use)
2. Rapidly effective (< 24 hours)
3. Long-term method (up to 5 years protection)
4. Pelvic examination not required prior to use
5. Do not interfere with intercourse
6. Do not affect breastfeeding

Norplant Implants: Contraceptive Benefits

1. Immediate return of fertility on removal
2. Few side effects
3. Client needs to return to clinic only if problems
4. No supplies needed by client
5. Can be provided by trained non-physician (nurse or midwife)

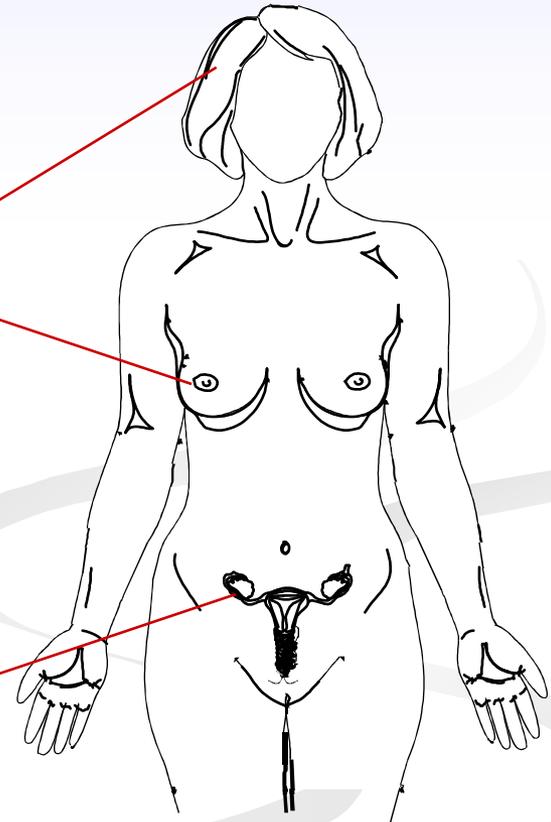
Lactational Amenorrhea Method (LAM)

LAM: Mechanisms of Action

Frequent intense suckling
disrupts secretion of
gonadotrophin releasing
hormone (GnRH)

Irregular secretion of GnRH
interferes with release of
follicle stimulating
hormone (FSH) and
leutinizing hormone (LH)

Decreased FSH and LH
disrupts follicular
development in the ovary to
suppress ovulation



LAM: Contraceptive Benefits

1. Effective (1-2 pregnancies per 100 women during first 6 months of use)
2. Effective immediately
3. Does not interfere with sexual intercourse
4. No systemic side effects
5. No medical supervision necessary
6. No supplies required
7. No cost involved

LAM: Non-contraceptive Benefits

■ For child:

1. **Passive immunization and protection from other infectious diseases**
2. **Best source of nutrition**
3. **Decreased exposure to contaminants in water, other milk or formulas, or on utensils**

■ For mother:

- **Decreased postpartum bleeding**

Methods of NFP- Natural Family Planning

1. Calendar Method
2. Basal Body Temperature (BBT)
3. Cervical Mucus Method (Billings)
4. Sympto-thermal (BBT + cervical mucus)

NFP: 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.

NFP: Contraceptive Benefits

1. Can be used to prevent or achieve pregnancy
2. No method-related health risks
3. No systemic side effects
4. Inexpensive

Spermicides

Definition:

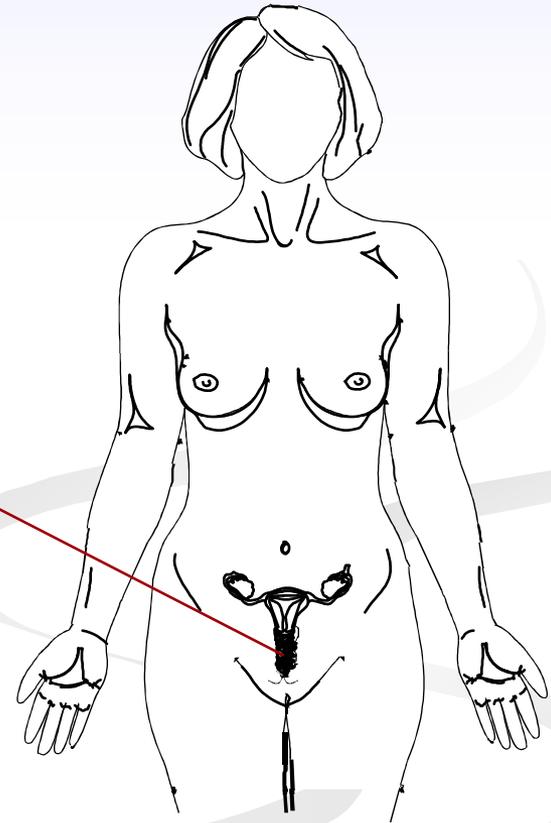
- *Chemicals (usually nonoxynol-9) that inactivate or kill sperm*

Types:

- *Aerosols (foams)*
- *Vaginal tablets, suppositories or dissolvable film*
- *Creams*

Spermicides: Mechanism of Action

Causes the sperm cell membrane to break, which decreases sperm movement (motility and mobility) and their ability to fertilize the egg



Standard Days

Method

*Simple Fertility
Awareness-Based
Approach
to Family Planning*

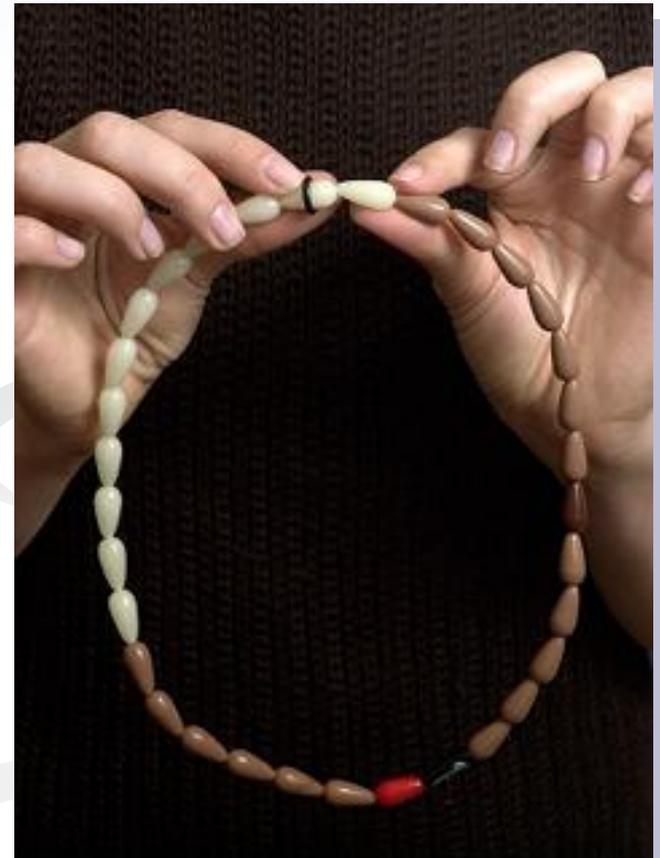


Characteristics

1. Natural
2. Simple
3. Low cost
4. Effective

The Standard Days Method

- Identifies days **8-19** of the cycle as fertile.
- Is for women with menstrual cycles between 26 and 32 days long.
- Helps a couple avoid unplanned pregnancy by knowing which days they should not have unprotected intercourse.
- A client can use a color-coded string of beads to help her keep track of where she is in her cycle and know when she is fertile.



Standard Days Method



1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29

Summary



- Standard Days Method is a simple method that fills a family planning gap
- Based on probabilities of becoming pregnant during the menstrual cycle
- Uses a string of beads to represent the cycle and identify days 8-19 as days to not engage in unprotected sex

Withdrawal (Coitus Interruptus)

- A traditional method of family planning in which the man completely removes his penis from the woman's vagina before he ejaculates
- Sperm do not enter the vagina and fertilization is prevented

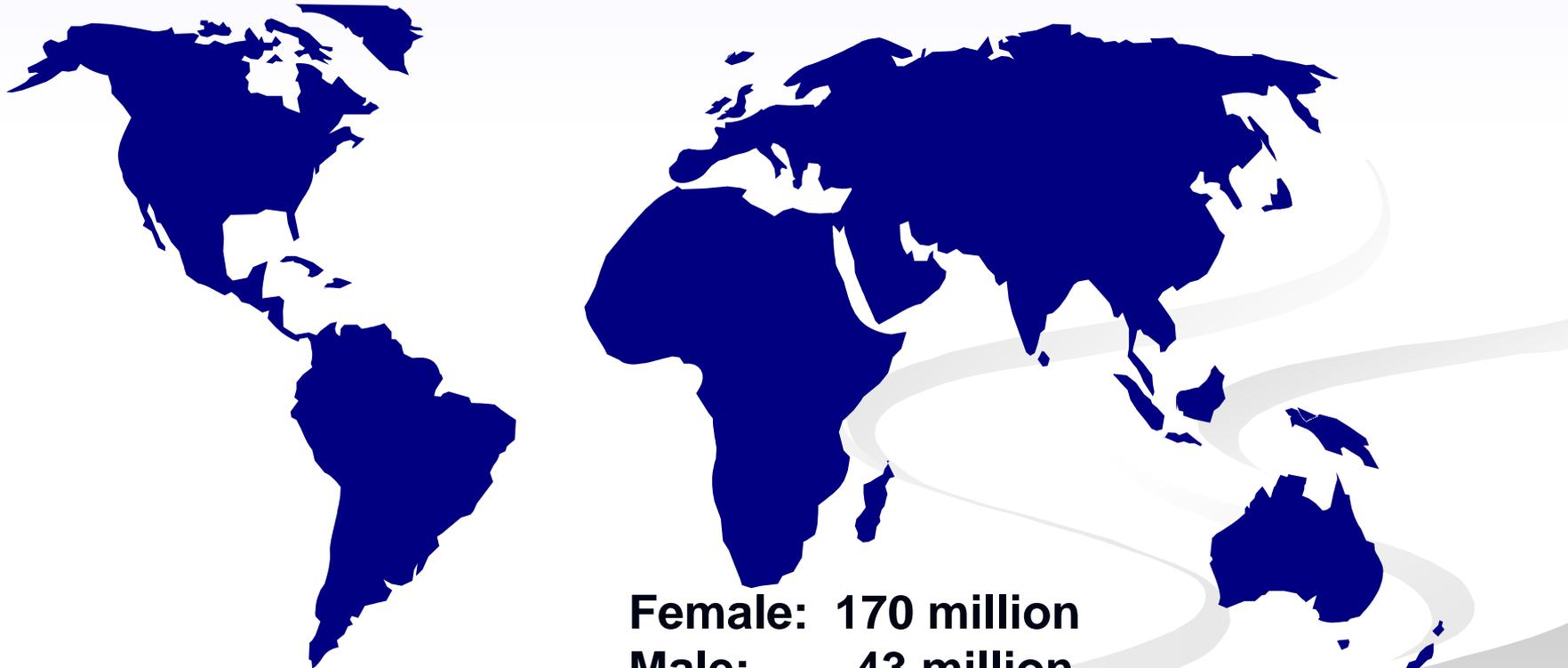
Men as Partners in Reproductive Health : Goals

- Provides male support for female actions related to reproduction and respect for women's reproductive and sexual rights
- Promotes responsible and healthy reproductive and sexual behavior in young men

Voluntary Sterilization: Definition

Minor surgical procedures for permanently terminating fertility in men (vasectomy) and women (mini-laparotomy and laparoscopy).

Voluntary Sterilization: Most Popular Contraceptive Method Globally



Source: Church and Geller 1990.

Voluntary Sterilization: Most Common Methods

- Vasectomy (male):
 - No-scalpel technique (preferred)
 - Incisional
- Tubal occlusion (female):
 - Mini-laparotomy
 - Laparoscopy

Voluntary Sterilization: Mechanism of Action

Vasectomy (no-scalpel or incisional):

- *By blocking the vas deferens (ejaculatory duct) sperm are no longer present in the ejaculate*

Minilaparotomy or laparoscopy:

- *By blocking the fallopian tubes (tying and cutting, rings, clips or electro-cautery) sperm are prevented from reaching the ovum*

Voluntary Sterilization: Benefits

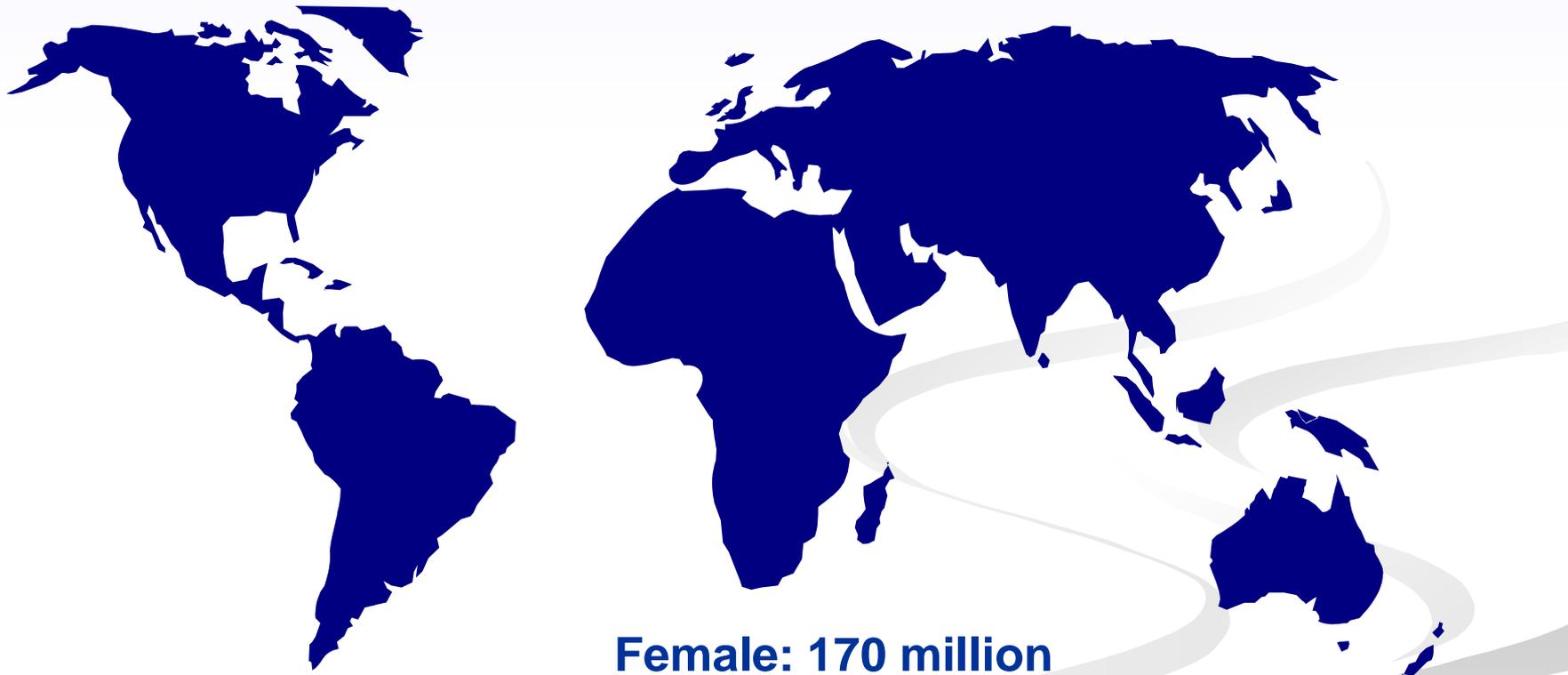
1. Permanent

2. Highly effective
3. Does not interfere with intercourse
4. Simple surgery usually performed under local anesthesia
5. No long-term side effects
6. No change in sexual function
7. Good for couples if pregnancy would pose serious health risk to woman

Voluntary Sterilization: Limitations

1. **Must be considered permanent (not reversible)**
2. **Client may regret later**
3. **Risk of complications, especially if general anesthesia used**
4. **Short-term discomfort/pain following procedure**
5. **Requires trained physician**

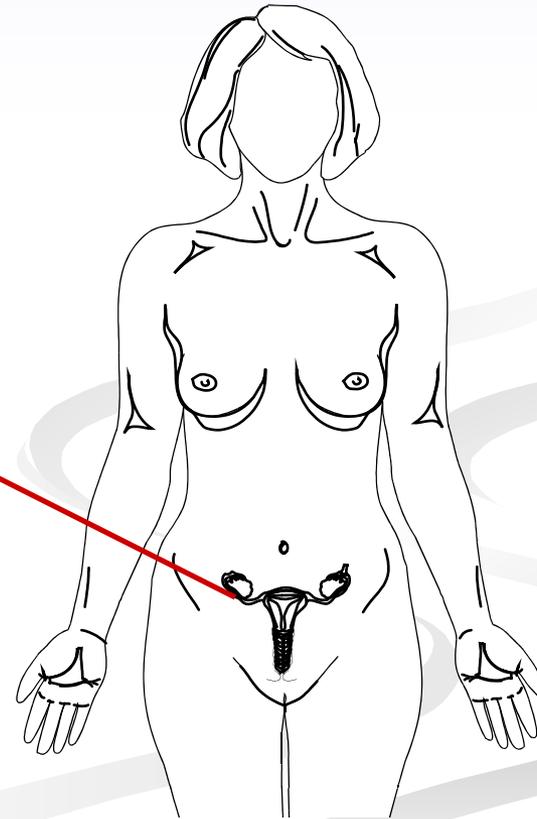
Tubal Occlusion: Most Popular Contraceptive Method Globally



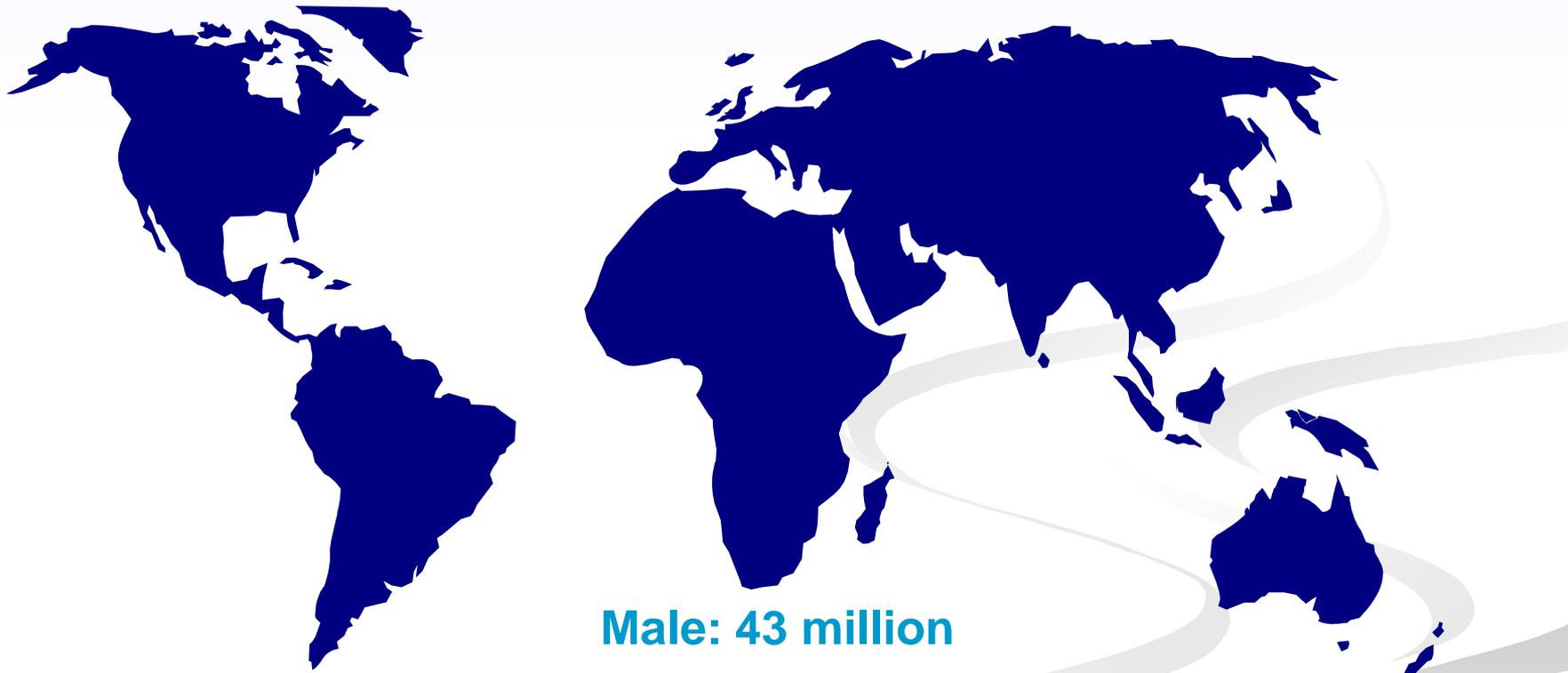
Source: Church and Geller 1990.

Tubal Occlusion: Mechanism of Action

By blocking the fallopian tubes (tying and cutting, rings, clips or electro-cautery), sperm are prevented from reaching ova and causing fertilization.



Vasectomy: Global Use



Source: Church and Geller 1990.