

# Contraception

**Nancy King, MS, CFLE  
Certified Sexuality Educator**

# FAMILY PLANNING

## I. Definition of family planning

A. To be able to plan for - what age to begin childbearing, the number of children wanted, spacing of children.

1. To be able to obtain an effective method of preventing pregnancy

## II. Use of family planning

A. Reducing health risk associated with childbearing, multiple pregnancies, pregnancies too close together

### 1. Optimal child spacing

✓ a. two years between children

(a) allows for 6 to 12 months of breastfeeding

- this provides important health benefits to the infant

(b) spacing of children can contribute to the physical health of the mother and fetus especially when nutrition and health care are inadequate.

b. "Closely spaced births present a risk to the healthy of all three family members involved: the mother herself, who does not have sufficient time to regain her strength after delivery; the initial child, who often have to be weaned early; and the baby born subsequently, who is likely to be premature or low-birth-weight. If all births occurring within less than two years of each other could be more widely spaced, one in four infant deaths in developing countries might be prevented."

*Population Reference Bureau, Family Planning Saves Lives, Washington, DC., 1997*

### 2. Economic concerns

a. children born too close together, or too many children can impact the families ability meet basic needs such as

- adequate housing
- nutritional needs
- ability for a mother to obtain employment, -costs of day care

### 3. Contraceptive use and unplanned pregnancies

a. of women who do not want to become pregnant, low income and minority women are twice as likely as other women to not use contraceptive methods.

b. low-income women also have high contraceptive failure rates.

#### **4. Decision making**

a. Contraceptive decision making is not often a shared responsibility between partners.

b. Women more often become responsible for obtaining, using and preventing pregnancy.

c. Violent relationship may impact ability for a woman to prevent pregnancy.

(1) men are much more likely to have the ability to determine when, where, and how sexual activity takes place.

(2) male partners may control their female partners ability to use contraceptives effectively by expressing disapproval about a contraceptive method to violent actions preventing use.

d. women often do not have enough information regarding contraceptive availability, effectiveness, pros/cons, costs

#### **B. Best intentions**

**1. More than 3 million American couples conceive unintentionally each year**

a. of these pregnancies almost half occur to women who are unmarried, poor or young--the contraceptive method used failed or did not work the way it should because it was used inconsistently or incorrectly

**2. Access to family planning**

a. many who want to use birth control may not have access

(1) may not be able to afford birth control on an ongoing basis  
- 16% of women of childbearing age (15-44) live in poverty, and one in five have no Medicaid or private insurance coverage.

(2) many women may not know where to access family planning services

**3. 7 out of 10 sexually active women are trying not to get pregnant each year.**

## METHODS OF CONTRACEPTION

- I. A woman who is sexually active throughout her reproductive years will need many, many years of contraceptive protection.
  - A. a woman who wants only two children will need contraceptive protection for more than 20 years.
- II. Purpose of contraception is to prevent pregnancy. For contraceptives to be effective they must be used accurately every time.
  - A. Many people do not read instructions or understand how a method works. This increases the risk of failure.
  - B. Teens may find it difficult to purchase methods or to go to a doctor for a prescription.
    1. These barriers increase the likelihood that teens will practice unprotected intercourse.
    2. The average sexually active teenager is having unprotected intercourse for approximately 6 to 9 months, before using a contraceptive method.
- III. ✓ Methods of contraception
  - ✓A. Abstinence
    1. Only method 100% effective
    2. To be effective no penis/vagina contact, intercourse, or ejaculation around the vagina could lead to pregnancy if the woman is fertile.
      - a. although penis/anus intercourse will not result in pregnancy, there is still a risk of infection from a sexually transmitted disease
    3. A choice everyone uses at some point in their life.
    4. User is in control.
  - ✓B. Withdrawal
    1. Removing penis before ejaculation
    2. Problems with withdrawal
      - a. cowper's fluid (prelubricating fluid) can contain up to 50,000 sperm

- b. man must be able to know his body well enough to withdrawal before ejaculation
  - c. can be frustrating for both partners
3. Although this may have a high failure rate it is better than nothing at all.

### C. Natural Family Planning / Fertility Awareness Method

1. By charting specific signs during the menstrual cycle a woman can determine approximately when ovulation has occurred.

- a. This is not a method for predicting ovulation.
- b. Stress, illness, poor nutrition, substance abuse, fatigue may all affect the menstrual cycle and therefore the timing of ovulation.
- c. This method can be used for couples who are trying to prevent a pregnancy or a couple who would like to time intercourse to increase chances of pregnancy.
- d. This method of pregnancy prevention is approved by all religious faiths.
- e. This method is inexpensive, it only requires a digital or basal thermometer and monthly charts to record cycle signs.
- f. For accurate interpretation at least three months should be charted, looking for regular patterns in the menstrual cycle, temperature, and cervical mucus.

#### 1. Procedure

- a. Charting menstrual cycle
  - (1) keep track of when the menstrual cycle starts (day one of bleeding) to when the cycle ends (day before bleeding begins again)
  - (2) keep track of number of days of bleeding
  - (3) determine the number of days in a menstrual cycle
- b. Temperature (BIT/ basal body temperature)
  - (1) at the same time every morning upon first awakening, a woman must take her temperature
    - before getting out of bed having a drink of water or smoking a cigarette

(2) the same thermometer should be used each time

(3) if awakening earlier than normal the temperature should be taken at that time

(4) the basal (basic body functioning) temperature is what a woman is trying to establish  
- this temperature is regulated by hormones

(5) the temperature pattern will reflect the changes in menstrual cycle hormones

(6) the temperature should be recorded on the chart as accurately as possible (example 97.2 degrees)

c. Cervical mucus

(1) cervix secretes a mucus throughout the menstrual cycle

(2) most noticeable several days after bleeding stop until the start of the next period

(3) changes in consistency and color during the menstrual cycle

- the mucus first noticeable (several days after bleeding stops) will be white, thick and clumpy

- around the time of ovulation the mucus will thin out, turn clear, this is "sperm friendly" mucus

- this mucus can be easily stretched between two fingers
- it resembles the consistency of egg white
- when smeared on a glass slide and left to dry it looks like frost on a windowpane
- this mucus is alkaline and helps the sperm to reach the cervix
- this clear mucus will last for several days

- after ovulation the mucus will again become thick, white and clumpy

d. Establishing ovulation

(1) These three signs must be charted and evaluated together

- the temperature should show a dip a rise at the time of ovulation

- the clear cervical mucus should occur around the time the dip/rise in temperature occurs

- the dip/rise should occur 14-16 days before the start of the next period

(2) Ovulation patterns can be seen when the signs have been recorded.

(3) Some women may feel a sharp pain in their abdomen around the time of ovulation.

(4) Some women may notice a little red or pink spotting of blood from their vagina at the time of ovulation.

e. Time most likely to conceive

(1) If unprotected intercourse occurs five days prior, the day of ovulation, or two days after ovulation (eight days total), conception is most likely to occur.

(2) Couple who are trying to get pregnant will want to time intercourse everyday or every other day when first seeing the clear mucus

(3) Couples who are engaging in sexual intercourse and do not want to conceive

- will want to have protected intercourse (condom & spermicide, or diaphragm) during peak fertility times (five days before ovulation and three days after ovulation)

(4) abstain from penis vagina intercourse or penis vagina contact during peak fertility times

f. Some disadvantages of this method

(1) As a contraceptive method

- illness and other things can cause incorrect temperature readings

(2) restless nights sleep or waking a falling back to sleep may cause an incorrect temperature reading

(3) women with irregular cycles may have a more difficult

time with developing menstrual cycle patterns

g. As a conception tool

(1) intercourse may become too programmed

(2) couples may become disappointed when pregnancy does not occur after several months

h. Advantages of this method

(1) As a contraceptive method

(2) women with very regular cycles may be able to have a very good idea of estimating when ovulation will likely occur within her menstrual cycle

✓D. **Spermicide**

1. **Chemical that kills sperm**

2. **Types of spermicide include**

a. foams, creams, gels, vaginal film, suppositories.

1) foams, creams, gels effective immediately

2) film and suppositories need 10-15 minutes to dissolve.

3. **Only effective for about 30 minutes.**

4. **Each act of intercourse another application must be used.**

5. **Need to remain in the body for 6-8 hours after intercourse to kill sperm.**

a. do not need to remove spermicide from vagina

b. douching not necessary to remove spermicide, but should not douche for 6-8 hours after intercourse

6. **Some males or females may be sensitive to the amount of spermicide or perfumes contained in the spermicide.**

a. these sensitivities may increase risk of infection and make a female more vulnerable to STI infections

7. **Effectiveness about 79% (use with a condom for higher effectiveness rate, 95%)**

✓E. **Today Sponge**

1. **This method of contraception has been approved by the United States in March 2005**

2. **Sponge containing spermicide is inserted into the vagina prior to intercourse.**



3. **Sponge is first wet with water to activate spermicide.**
4. **The sponge blocks sperm path, absorbs and kills sperm**
5. **Can be inserted min. or hours prior to intercourse and continues to be active for 24 hours after first insertion. Should not be removed for 6 to 8 hours after last intercourse.**
6. **Should not be left in more than 30 consecutive hours**
7. **Effectiveness about 80%**

✓ **F. Condoms**

1. **Sheath covering the penis catching the ejaculation**
2. **Can reduce risk of some STD's including gonorrhea, chlamydia, hepatitis B, or HIV.**
  - a. **May not have any impact on skin to skin contact STD's including herpes, genital warts, or syphilis, when the infection is located other than the penis or vagina.**
3. **Latex vs natural vs polyurethane**
  - a. **natural skin condoms have pores that allow virus and bacteria to pass but not sperm, can be used by those allergic to latex.**
  - b. **latex is also a barrier to virus, bacteria and sperm.**
  - c. **polyurethane are new, effective as latex, provide more sensitivity and can be used by those who have allergic reaction to latex**
4. **Condom should be put on before penis/vagina contact.**
5. **Condom purchasing choices**
  - a. **size, no standard size**
    - 1) **condoms are made for men not adolescent boys**
      - a) **look for smaller sizes such as Snugger Fit**
    - 2) **condoms too large may come off, condoms too small may break.**
  - b. **lubricated, or non- lubrication. Lubricated condoms are less likely to break or come off.**
    - **Proper amount of lubrication is key to effective condom use. Even lubricated condoms may need additional**

lubricant. Only use water base lubricant with condoms

✓6. **Storage of latex condoms in extremes of heat and cold may cause latex condoms to become more porous and break.**

- a. condoms should be stored at room temperature
- b. storing condoms in the glove compartment, wallet or even a woman's purse could damage the condom
- c. placing a condom in these locations for a short term, then removing them for use is considered carrying a condom. Condom packages should still be protected from being punctured

✓7. **Proper use of a condom can help to reduce failure rate.**

- a. check condom package
- b. carefully open
- c. check which way condom unrolls
- d. twist tip of condom
- e. keep twisted as condom is unrolled all the way down the penis shaft
- f. if condom is too large it may need to be held on the penis during intercourse
- g. after intercourse hold condom on penis as penis is withdrawn from the vagina
- h. should not be flushed in toilet

8. **Effectiveness about 85% with spermicide product 95%**

✓G. **Hormonal methods (prescription)**

1. **Hormonal method work primarily by regulating the female hormones and preventing ovulation.**

2. **Methods include**

- a. ✓oral contraception (pill)
  - monthly
  - Seasonale/ seasonique (3 months on 1 week off)
  - Lybrel (daily pill 365 days a year)
- b. Depo Provera

- c. Patch
- d. Vaginal Ring
- e. Emergency contraception
- f. Implanon – implant effective for 3 years

3. ✓ **Oral contraception**

- a. combination of synthetic hormones progesterone and estrogen
- b. prescription method
  - 1) medical exam; pap smear, pelvic exam, breast exam, and medical history needed within one year
- c. pill effective for no more than 24 hours
  - 1) must be taken at the same time everyday
- d. missed pills should be taken, although a woman is no longer protected during that pill pack. Backup methods such as abstinence or condoms and spermicide should be used
- e. antibiotics such as tetracycline may cause pills to be less effective. Backup methods should be used during this time

/f. **Advantages to using combined hormone methods**  
nothing to do right before sex to protect against pregnancy

more regular, shorter periods

less: menstrual flow and cramping, acne, iron deficiency anemia, excess body hair, premenstrual symptoms, as well as related headaches and depression

protection against ovarian and endometrial cancers, pelvic inflammatory disease, noncancerous growths of the breasts, ovarian cysts, and osteoporosis (thinning of the bones)

**Disadvantages to using combined hormone methods:**

rare but serious health risks, including blood clots, heart attack, and stroke — women who are over 35 and smoke are at a greater risk

other possible side effects include temporary irregular bleeding, weight gain or loss, breast tenderness, nausea — rarely, vomiting, changes in mood, and other discomforts

human error related to failure rate

f. most users get 98% effectiveness

✓4.

Extended period absence pills

a. Seasonale®/Seasonique®

i. FDA approved 2003

ii. combination hormonal oral contraceptive

iii. 91 day cycle, 7 days off (4 periods per year)

iv. Information related to oral contraceptive applies

v. Additional side effects possible break through bleeding decreasing over longer term use

b. Lybrel® Continuous contraception

i. FDA approved 2007

ii. Combination hormonal oral contraceptive

iii. 1 pill taken every day 365 days

iv. no periods

c. Effectiveness 99%

✓5.

Depo Provera®

a. injection given every 3 months

b. spotting between periods during the first year, after that periods may stop altogether

c. return to fertility unpredictable

1) some women may take longer before being able to get pregnant

2) may not be a good choice for women wanting to plan a timely pregnancy

d. effectiveness +99%

✓6.

Patch - Ortho Evra®

a. thin patch applied to skin containing combination hormones like in oral contraception

b. applied on the same day of the week for three consecutive weeks changing application location

c. advantages specific to using the Patch:

- It protects against pregnancy for one month.
- You don't have to take a pill every day

disadvantages specific to the Patch:

- skin reaction at the site of application
- menstrual cramps
- for wearers of contact lenses, a change in vision or the inability to wear the lenses
- may not be as effective for women who weigh more than 198 pounds

**7. Vaginal Ring - NuvaRing®**

- a. flexible ring containing combination hormone like oral contraceptives
- b. inserted deep in the vagina
- c. left in the vagina for 3 weeks, removed for one week
- d. side effects and health risks similar to oral combination hormones.

Advantages

- It protects against pregnancy for one month.
- You don't have to take a pill every day.
- It doesn't require a "fitting" by a clinician.
- It doesn't require the use of spermicide.

Disadvantages

- increased vaginal discharge
  - possible vaginal irritation or infection
  - can't use a diaphragm or cervical cap for a backup method of birth control
- f. effectiveness +99%

**8. Implanon®**

- a. single implant in the arm
- b. releases hormones continuously for 3 years
- c. contains progestin only
- d. can be removed before 3 years

**9. Emergency Contraception**

- a. is a high dose of hormones taken within 120 hours of having unprotected sexual intercourse (most effective if taken within 72 hours)
  - 1) first dose of hormones, given in the form of 2 or more pills, is followed by a second dose 12 hours

later

- b. when emergency contraception can be used
- 1) if you have had sex without using birth control, or if your birth control method failed (condom broke, etc.), you may want to consider emergency contraception
  - 2) a complete medical history will be taken and you will be given a pregnancy test
  - 3) the first set of pills is taken here at Planned Parenthood and you will receive instructions and pills for the second dose to take on your own 12 hours later
    - a) a follow up visit may be advised

c. side effects

- 1) women may experience some side effects, such as nausea and vomiting, breast tenderness, headache, and irregular bleeding or spotting
  - a) they should be mild and should stop within a day or so after taking the medication
- 2) if vomiting occurs within an hour after taking the pills, a woman may need to take additional pills to make up for the ones lost in vomiting
  - a) her regular menstrual period should begin within 2 to 3 weeks

d. complications

- 1) not likely with emergency contraception medication, but if a woman has any of the following warning signs, she should call her health care provider right away or go to an emergency room:
  - a) chest or arm pain, headaches with vomiting, dizziness, fainting, muscle weakness or numbness, speech or vision disturbances, abdominal pain, yellowing of the skin or eyes, breast lump, or severe depression

e. effectiveness

- 1) 75% to 89%

a) a pregnancy may still result because too

much time has elapsed since having unprotected sex, from a previous act of unprotected sex, or from failure of the drug itself.

**/ H. Diaphragm, Femcap, Lea's Shield**

**1. Prescription barriers used with spermicide to cover the cervix and hold spermicide in place.**

**2. Diaphragm**

- a. fitted between the pubic bone and cervix
- b. effective upon insertion
  - 1) spermicide needs to be added with applicator for each act of intercourse
- c. diaphragm needs to remain in place up to 8 hours after last act of intercourse
  - 1) should be removed within 24 hours of first insertion.
- d. a woman needs to be refitted if she gains or loses 25 or more pounds, has pregnancy or pelvic surgery
- e. although the diaphragm is reusable and may last for several years a woman should have a pap smear and pelvic exam every year
- f. check occasionally for holes

**3. FemCap®**

- a. small silicone cap fitted by a doctor
  - 1) the cap fits directly on the cervix
- b. inserted by patient with use of spermicide
- c. effective upon insertion
- d. needs to remain in place up to 8 hours after last act of intercourse
- e. should be removed within 48 hours after first insertion

**4. Lea's Shield**

- a. reusable vaginal barrier method
- b. one size fits all silicone insert
- c. effective for 48 hours continuous wear
- d. must be left in 8 hours post coital
- e. recommended use of spermicide for more effectiveness

**5. Methods are about 82% effective**

**I. Intrauterine Contraceptive (IUC)/ Intrauterine System (IUS)**

1. **Prescription method inserted and removed by a clinician**
2. **Available**
  - a. Mirena (IUS)
    - 1) T shaped hormone releasing IUC effective for 5 years
  - b. ParaGard T shaped with copper effective for 12years
3. **Works by preventing fertilization or implantation if conception occurs.**
4. **Concerns**
  - a. women who use the IUC are strongly recommended to be in a mutually monogamous relationship
5. **ParaGuard (IUC) ®**
  - a. copper IUC
  - b. copper impacts motility of sperm
  - c. side effects
    - some women experience more cramping, longer and heavier periods with the use of the IUD
6. **Mirena®**
  - a. contains low dose synthetic progestin
  - b. prevents ovulation, block sperms, alters uterine lining
  - c. can help to reduce periods and decrease painful periods
  - d. effective for 5 years
7. **Effectiveness 94% - 99%**

✓J.

**Male and Female Sterilization**

1. **Permanent method of contraception. Must be 21 to undergo procedure.**
2. **Male sterilization -vasectomy**
  - a. non scalpel method
    - 1) after insertion of needle to the scrotum for anesthesia, the vas deferens is drawn through a small hole
    - 2) the vas deferens is clipped and cauterized



- 3) the procedure is repeated on the other side
- b. quick recovery after several days, no stitches to be removed.
- c. before the procedure is considered effective a man must have around 20 ejaculations to clear the vas deferens of sperm
  - 1) a lab examination of the semen should show no sperm.
- d. man still produces testosterone and sperm
  - 1) sperm is absorbed by the body when not ejaculated
  - 2) may be a link between vasectomy and increased rate of prostate cancer
- d. effectiveness 99.8%
- 3. **Female sterilization -tubal sterilization**
  - a. can be performed through laparoscopy, decreasing recovery time
  - b. a more invasive procedure than vasectomy
  - c. both fallopian tubes are cut and capped or cauterized
  - d. a local or general anesthetic may be used
  - e. effective immediately
  - d. woman still ovulates and has "regular" monthly cycles
  - e. effectiveness 98.6%
- 4. **Essure – permanent tubal blockage**
  - a. surgery free
  - b. 10 minute procedure
  - c. Not reversible
  - d. Effective after 3 months insertion
  - e. Inserted through the vagina, cervix, uterus to fallopian tube
  - f. Effectiveness 99.8%

## Resources

"Contraceptive Technology Sixteenth Revised Edition" Irvington Publishers, Inc., New York, 1994

"Modern Contraception, Updates from the Contraception Report", David A. Grimes, MD and Melinda Wallach, RN, Emron Totowa, New Jersey, 1997

Institute of Medicine, National Academy of Sciences, "The Best Intentions: Unintended Pregnancy and the Well-Being of Children and Families", National Academy Press, Washington, DC., 1995

Population Reference Bureau, "Family Planning Saves Lives", Washington, DC., 1997

Alan Guttmacher Institute, "Contraception Counts: State-by-State Information", 1998

McArthy, K. (2002) Variety Is the Spice of Life, Planned Parenthood Federation of America [online]  
[http://www.teenwire.com/index.asp?taStrona=http://www.teenwire.com/warehouse/articles/wh\\_20020925p155\\_contraceptives.asp](http://www.teenwire.com/index.asp?taStrona=http://www.teenwire.com/warehouse/articles/wh_20020925p155_contraceptives.asp)

Berlex (2003) Mirena; Birth Control for Moms [online] <http://www.mirena-us.com/>

Barr Laboratories (2003) Seasonale [online] <http://www.seasonale.com/>

Allendale Pharmaceuticals (2003) Today Sponge [online]  
<http://www.todaysponge.com/>

FemCap (2005) A New Non-Hormone Latex -Free Birth Control Method  
<http://www.femcap.com/index.htm>

Implanon - (2007) Patient Information [online]

<http://www.implanon-usa.com/consumer/whatisimplanon/patientinformation/index.asp?C=32182393597343402778&svarqvp2=0>

Essure – female sterilization - 2009  
<http://www.essure.com/Default.aspx?tabid=55> [online]