

# BARRIER CONTRACEPTIVE METHODS

FLAME LECTURE: 150

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# LEARNING OBJECTIVES

- ▶ To describe the mechanism of action and effectiveness of contraceptive methods
- ▶ To counsel the patient regarding the benefits, risks and use for each contraceptive method
- ▶ To describe barriers to effective contraceptive use and to the unintended pregnancy
- ▶ Prerequisites:
  - ▶ NONE
- ▶ See also – for closely related topics
  - ▶ FLAME LECTURE 149A1: Combined Oral Contraceptives
  - ▶ FLAME LECTURE 149A2: The Contraceptive Counseling Visit



# BARRIER METHOD INTRODUCTION

- ▶ Act as barriers to keep sperm from reaching the egg in the female reproductive tract
  - ▶ Some types of barrier method contraception can also be used as protection against sexually transmitted infections (STI's)
- ▶ Types:
  - ▶ Over the Counter: condom, spermicide/sponge
  - ▶ Prescription: diaphragm, cervical cap

# EFFECTIVENESS

- ▶ Barrier methods are much LESS effective at preventing pregnancy as other birth control methods (IUD, implant, injection)
- ▶ Out of 100 women who use barrier methods annually, approximately 18-28 women will become pregnant while using barrier contraception
- ▶ Best when used correctly every time there is intercourse



# CONDOMS

- ▶ Acts as a physical barrier that prevents sperm from entering the uterus
- ▶ Typically made from latex or polyurethane (plastic)
- ▶ Available as Male and Female types:
  - ▶ **Male condom:** thin sheath placed over erect penis prior to sexual intercourse
  - ▶ **Female condom:** thin plastic pouch that lines the vagina and is held in place by an outer ring at the vagina and an inner ring at the cervix



# CONDOMS

## ADVANTAGES

- Easily accessible OTC
- Cost is affordable
- No hormonal interaction
- Aside from Latex allergies, there is no medical contraindications
- Protection from STIs by acting as a physical barrier to decrease contact
- Can be used immediately after childbirth and do not affect lactation
- Female condom can be inserted up to 8 hours before sex

## DISADVANTAGES

- Some people may have latex or polyurethane allergies
- Condoms can slip off or break during intercourse
  - Decreased efficacy
- May reduce sexual pleasure due to decreased sensitivity
- May reduce spontaneity and interrupt intercourse to place



# SPERMICIDE & SPONGE

- ▶ Act as a chemical barrier (typically, *nonoxynol-9* is used) which inactivates sperm
- ▶ Available in many different forms such as foams, gels, creams, films, suppositories, and spermicidal sponges
- ▶ Can be used alone or in conjunction with other barrier methods such as condoms

# SPERMICIDE & SPONGE

## ADVANTAGES

- Easily accessible OTC
- Easy to use
- Affordable
- No hormonal interaction and is safe to use while breastfeeding
- Can be used in conjunction with other types of barrier contraceptives
- Spermicide with sponge can be placed 24 hrs prior to intercourse and be used multiple times during a 24 hr period

## DISADVANTAGES

- Can cause vaginal irritation or burning
- Some people may be allergic to spermicide and have reactions to the chemicals used
- Does not protect against STIs



# DIAPHRAGM

- ▶ Small dome-shaped device typically made of silicone or latex that covers the cervix
- ▶ Must be used with spermicide
- ▶ Two types of diaphragms:
  - ▶ Individually-sized diaphragm: requires fitting with a health care professional
  - ▶ One-size diaphragm: fits most women but not all



# SPERMICIDE & DIAPHRAGM

## ADVANTAGES

- Has no hormonal interaction and is safe to use while breastfeeding
- Can be inserted hours before sex (specific time varies between diaphragms)

## DISADVANTAGES

- Must be used with spermicide
- May cause vaginal irritation and burning from the spermicide chemicals
- Use of diaphragm and spermicide may increase the risk of UTI
- Toxic Shock Syndrome has been reported from use of diaphragm
- Cannot be used immediately after giving birth since uterus and cervix must return to normal size
- Does not protect against STIs



# CERVICAL CAP

- ▶ Small plastic dome that fits tightly over the cervix and is held in place with suction
- ▶ Should be used with spermicide
- ▶ Requires fitting with health care professional and is available in three sizes in the US



# SPERMICIDE & CERVICAL CAP

## ADVANTAGES

- Has no hormonal interaction and is safe to use while breastfeeding
- Can be inserted up to 40 hours prior to sex

## DISADVANTAGES

- Should be used with spermicide
- May cause vaginal irritation and burning from the spermicide chemicals
- Use during menstruation is not recommended due to increased risk of infection and **Toxic Shock Syndrome**
- May require refitting after having a baby or significant weight gain/loss
- Does not protect against STIs



# COUNSELING RECS

- ▶ Barrier methods work best when they are used correctly and every time there is sexual intercourse
  - ▶ Failure rate is higher than with hormonal methods, IUDs, subdermal implants, or sterilization
  - ▶ Barrier methods require motivation with every act of vaginal intercourse to try to prevent pregnancy
- ▶ **Main Advantages:** safe, non-hormonal, immediately effective, reversible, portable, relatively inexpensive
- ▶ **Main Disadvantages:** lower efficacy than other contraceptive options, some methods lack of protection from STI, need for use with every episode of sex
- ▶ Emergency contraception is indicated if there is failure of correct use of a contraceptive method

# IMPORTANT LINKS / REFERENCES

1. [ACOG May 2016 – “Barrier Methods of Birth Control: Spermicide, Condom, Sponge, Diaphragm, and Cervical Cap”](#)
2. [UptoDate – “Pericoital contraception: Diaphragm, cervical cap, spermicide, and sponge”](#)
3. [CDC – “Effectiveness of family planning methods”](#)
4. [Planned Parenthood – “All about birthcontrol methods”](#)