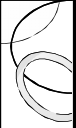




BIRTH CONTROL AND BREASTFEEDING

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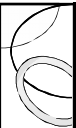
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Disclosures

- I have no financial ties to any manufacturers or methods of birth control.


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Objectives

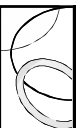
- Participants will be able to:
 - discuss the advantages and disadvantages of at least four non-hormonal methods of birth control.
 - discuss the advantages and disadvantages of at least two hormonal methods of birth control.
 - list the three factors that must be in place for the Lactational Amenorrhea Method (LAM) of birth control to work.

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PERMANENT METHODS OF BIRTH CONTROL

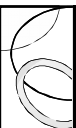
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VASECTOMY

- No effect on lactation
- Sperm continues to clear for about 20 ejaculations—another method must be used during this time


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TUBAL LIGATION

- Slight risk of conception for a decade after procedure
- If general anesthesia used, separation of mother and baby during recovery
- Anesthesia can interfere with baby learning to breastfeed well

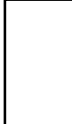
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TUBAL LIGATION


- Can mother schedule procedure so that she can express enough milk for a couple of missed feedings?
- Risk of pregnancy for 10 years post-procedure:
 - Younger than 28 years old: 5%
 - Between 28 and 33 years old: 2%
 - 34 years and older: 1%

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NON-PERMANENT METHODS OF BIRTH CONTROL

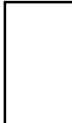
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Hierarchy Of Non-permanent Methods Of Birth Control

- 1. Non-hormonal methods
- 2. Progestin-only methods
- 3. Estrogen-containing methods


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NON-HORMONAL METHODS OF BIRTH CONTROL

- Barrier methods
- Non-barrier methods


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BARRIER METHODS

- DIAPHRAGM
 - MUST be re-fitted after EVERY birth
 - Can't be fitted until 6-8 weeks after birth
 - MUST be re-sized with every 10-pound weight gain or loss


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BARRIER METHODS

- CAYA: New type of diaphragm
 - Contoured
 - One-size-fits-most
- Diaphragms must always be used with contraceptive gel
 - Gel must be water-based for use with Caya


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BARRIER METHODS

- DIAPHRAGM
 - Must be left in place at least 6 hours after intercourse
 - If intercourse happens again during that timeframe, the clock re-starts for another 6 hours.
 - Another dose of spermicide will need to be placed in vagina


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BARRIER METHODS

- CONDOMS
 - Male and female versions available
 - Male condoms have lower failure rate than female condoms
 - Male condoms available in latex, polyurethane, polyisoprene and natural membrane (also called lamb skin)


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BARRIER METHODS

- CONDOMS
 - Latex has lower failure rate than natural membrane
 - Polyurethane does not stretch easily—higher breakage and slippage rate
 - Polyisoprene considered effective at preventing pregnancy and reducing spread of STDs


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BARRIER METHODS

- CONDOMS
 - Natural membrane made from animal intestinal membrane, usually lamb
 - Natural pores in the membranes are large enough to allow viruses that carry STDs to pass through
 - Low estrogen levels during breastfeeding may cause vaginal dryness. Lubricated condoms may be more comfortable.


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BARRIER METHODS

- CONTRACEPTIVE SPONGE; CERVICAL CAP
 - 40% failure rate after woman has birthed a baby!


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BARRIER METHODS

- SPERMICIDE
 - Can be used alone
 - Less risk of pregnancy if combined with condom or diaphragm. (Some condoms pre-packaged with spermicide applied, but those don't work as well.)
 - Small amounts pass into milk, but no problems documented in babies


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NON-BARRIER METHODS

- Copper Intrauterine Device (IUD)--Paragard
 - Produces inflammatory reaction that's toxic to sperm and eggs
 - No protection against STDs
 - Can be used as emergency contraception
 - Should not be used by women with Wilson's Disease


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NON-BARRIER METHODS

- Copper Intrauterine Device (IUD)—Paragard
 - Can be left in place 10 or 12 years (depending on what you read)
 - “Since copper IUDs are usually smaller [than hormonal IUDs], there is little problem with effect of letdown on the uterus.”
 - Lawrence & Lawrence © 2016, 8th ed.


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NON-BARRIER METHODS

- NATURAL FAMILY PLANNING
 - Involves using periodic abstinence from sexual relations
 - Mother observes cervical mucus secretions, cervical position and/or basal body temperature


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NON-BARRIER METHODS

- NATURAL FAMILY PLANNING
 - Methods using temperature and mucus and/or cervical position changes are called symptothermal methods
 - Basal body temperature requires at least 6 hours uninterrupted sleep


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NON-BARRIER METHODS

- NATURAL FAMILY PLANNING
 - NFP method using basal body temperature and observation of cervical mucus is taught by Couple to Couple League.
 - www.ccli.org

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NON-BARRIER METHODS

- NATURAL FAMILY PLANNING
 - Methods involving observation of mucus are best learned while mother is not breastfeeding
 - Specific information mother must know to read her mucus correctly while breastfeeding

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NON-BARRIER METHODS

- NATURAL FAMILY PLANNING
 - Creighton Model FertilityCare System
 - Involves only checking vaginal fluid
 - Shown to be more effective than method of NFP taught by Couple to Couple League

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NON-BARRIER METHODS

- Cervical Positioning System
 - As ovulation nears, cervix is higher, softer and open wider
 - Low cervix, firm tissue, closed—probably not fertile

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NON-BARRIER METHODS

- LACTATIONAL AMENORRHEA METHOD (LAM)
 - Takes advantage of breastfeeding's ability to stop menstrual cycles

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HORMONAL METHODS

- Can affect mother's milk supply
- Low levels of the hormones do get into breastmilk

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PROGESTINS


- Progestins are *not* the same as progesterone
- Impossible to patent naturally-occurring compounds
- Chemical make-up is similar but not identical to progesterone

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ESTROGEN

- Present in "combined" birth control pills and in the birth control patch (Xulane)
- Almost always causes some decrease in milk supply
- Dr. Hale advises to avoid all methods containing estrogen. He also states estrogen is serious health hazard in first 6 wks postpartum due to increased risk of blood clots.


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PROGESTINS

- Manufacturers state not to be used before 6 weeks postpartum
- Even waiting past that time limit, these methods can seriously impact milk supply


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PROGESTINS

- Some mothers experience oversupply
- Some mothers see no change in milk supply
- Many mothers experience significant drop in supply


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PROGESTINS

- PILLSS
 - Can be stopped immediately if mother experiences change in supply
 - Sometimes change is rather immediate, sometimes develops more slowly


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PROGESTINS

- PILLSS
 - Baby may tug at breast at end of feeding, indicating drop in supply
 - Baby may fuss and come off breast at beginning of feeding, indicating possible change in flavor


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PROGESTINS

- PILLSS
 - If mother has only been on pill for 3-4 days, often only takes 3-4 days to rebuild supply
 - (Baby nursing like growth spurt, or mom pumping)
 - If mother has been on pill for 2 months or longer, can take 2-3 weeks to rebuild supply
 - Baby is older at that point, so mom will probably have to pump to rebuild supply


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PROGESTINS

- PILLSS
 - **Vitaly** important to take pill every 24 hours!
 - “Combined” pill is more forgiving; allows mother to sleep a few hours later
 - With progestin-only pills, can ovulate shortly past 24-hour mark


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PROGESTINS

- DEPO-PROVERA SHOT
 - Time-released shot given once every 3 months
 - If it has negative impact on milk supply, nothing can be done about it
 - If mother gets shot before leaving hospital, milk volume may not increase


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PROGESTINS

- DEPO-PROVERA SHOT
 - Even waiting 6 weeks does not guarantee shot will have no impact on milk supply
 - If woman is more than two weeks late getting next injection, more likely to get pregnant


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PROGESTIN

- DEPO-PROVERA
 - Cromer et al.
 - Adolescent girls receiving Depo-Provera had significant loss in Bone Mineral Density compared with bone gain in untreated girls and girls using oral contraceptives


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PROGESTINS

- PROGESTIN-ONLY IMPLANTS
 - In the US, only Nexplanon is available
 - Inserted under skin, usually in the inner upper arm
 - Can prevent pregnancy up to 3 yrs


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PROGESTINS

- INTRAUTERINE DEVICE (IUD)
 - IUDs available with and without progestin coating
 - Some anecdotal reports of mothers experiencing drop in milk supply after insertion of IUD with progestin

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PROGESTINS

- INTRAUTERINE DEVICE (IUD)
 - IUD could be removed if there is a problem but doctors won't always do that

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PROGESTINS

- Intrauterine Device (IUD)
 - Can be expelled from the uterus
 - Best times to insert are:
 - in the 10 minutes immediately after delivery of the placenta OR
 - 6 weeks after childbirth
 - If inserted then, no increased expulsion rate for breastfeeders

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PROGESTINS

- LEVONORGESTREL-RELEASING INTRAUTERINE DEVICE (IUD)
 - Chen, et al. (2009)
 - At 6 months, exclusive breastfeeding is less likely among women receiving IUD with progestin postplacentally than in women receiving it 6-8 weeks postpartum

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PROGESTINS

- LEVONORGESTREL-RELEASING IUD
- Chen, et al. (2009)
 - If progestin-coated IUD inserted immediately after delivery of placenta:
 - 24.2% of mothers still breastfeeding at 3 months postpartum
 - 9.1% of mothers still breastfeeding at 6 months postpartum
 - If progestin-coated IUD inserted 6-8 weeks postpartum:
 - 50.0% of mothers still breastfeeding at 3 months postpartum
 - 42.6% of mothers still breastfeeding at 6 months postpartum

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PROGESTINS

- LEVONORGESTREL-RELEASING IUD
- Soini, T. et al. "Cancer risk in women using the levonorgestrel-releasing intrauterine system in Finland." *Obstet Gynecol.* 2014 Aug;124(2 Pt 1):292-9.
 - Use of this device for treatment of menorrhagia was associated with decreased incidence of endometrial, ovarian, pancreatic and lung cancers.
 - Use of this device for treatment of menorrhagia was associated with an increased incidence of breast cancer.

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PROGESTINS

- INTRAUTERINE DEVICE (IUD)
 - IUD can puncture wall of uterus
 - Hartwell, S and Schlesselman, S. "Risk of uterine perforation among users of IUD" *Obstet Gynecol* 61:31, 1983: risk of perforation 10 TIMES greater in lactating women than non-lactating women, regardless of length of time postpartum for insertion

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PROGESTINS

- CDC changed its guidelines Spring 2010
 - www.cdc.gov/mmwr/preview/mmwrhtml/rr59e0528a1.html
 - "Benefits of immediate postpartum use outweigh risks"
 - "By 4 weeks, no risk for progestin-only"

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PROGESTINS

- Combined pills rated “generally acceptable” from 4 weeks
- Academy of Breastfeeding Medicine urged CDC to reconsider but CDC has not done so

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COMBINED

- NUVA-RING
 - Vaginal ring that contains both estrogen and progestin
 - Replaced every 4 weeks (wear for 3 weeks; remove for 1 week)
 - Numerous reports of breastfeeding women suffering significant reduction in milk supply

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EMERGENCY CONTRACEPTIVES

- Currently two types on the market:
 - Paragard, the copper IUD
 - Emergency contraceptive pills
- Paragard makes sperm less able to fertilize an egg.
 - Needs to be inserted within 5 days of having unprotected sex.

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EMERGENCY CONTRACEPTIVES

- Pills
 - Plan B (two pills taken separately)/Next Choice/Next Step
 - Progestin-only (Levonorgestrel)
 - Plan B One-Step
 - Both pills taken simultaneously, giving double-dose of progestin

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EMERGENCY CONTRACEPTIVES

- Ella
 - Contains ulipristal acetate
 - Not to be used at same time as emergency contraceptive containing levonorgestrel; may reduce action of combined and progestin-only contraceptives

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EMERGENCY CONTRACEPTIVES

- Ella (continued)
 - Manufacturer recommends avoid breastfeeding for 36 hrs after intake
 - Infant Risk Center says:
 - It's steroid, so milk levels are probably low
 - 32-hour half-life
 - 100% orally bioavailable, but milk levels are low
 - T_{max} = 1 hr.

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LACTATIONAL AMENORRHEA METHOD (LAM)

- 1988: Researchers studied published and unpublished research about pregnancy rates and produced the Bellagio Consensus

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LACTATIONAL AMENORRHEA METHOD (LAM)

- 3 Factors must ALL be in place for LAM to work:
 1. Baby must be less than 6 months old
 - AND
 2. Mother has experienced no vaginal bleeding after 56th day postpartum
 - AND

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LACTATIONAL AMENORRHEA METHOD (LAM)

3. Mother is fully or nearly fully breastfeeding.

No pacifiers.

Non-nutritive sucking must be at breast.

No solid foods have been introduced.

No more than 4 hrs between feeds during day and no longer than 6 hrs at night.

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LACTATIONAL AMENORRHEA METHOD (LAM)

- Longer mother goes beyond 6 months without a period, greater her chances she will ovulate *before* first period
- When baby older than 6 months and solids are introduced, if mother always breastfeeds before giving solids, LAM provides 93% protection from pregnancy at 12 months postpartum

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I would like to thank the Illinois Department of Human Services for the opportunity to present this information.

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