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Postpartum IUDs and Contraceptive Implants:

The Sooner the Better?

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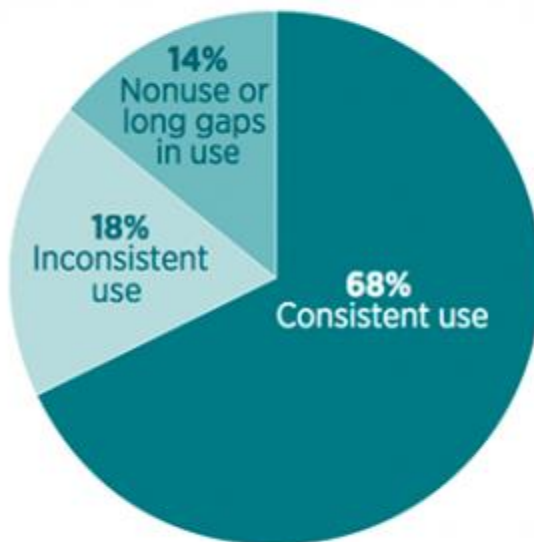
Unintended Pregnancy in the US

3.1 Million Unintended Pregnancies
over one year

Intended: 55%

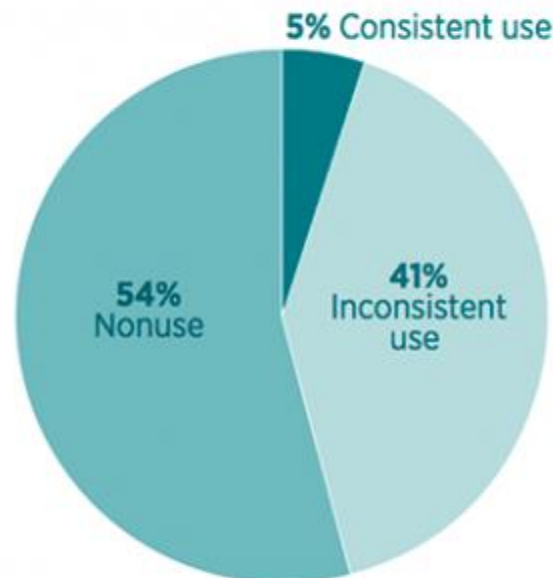
Unintended: 45%

Women at Risk
(43 Million)



By consistency of method
use all year

Unintended Pregnancies
(3.1 Million)



By consistency of method use
during month of conception



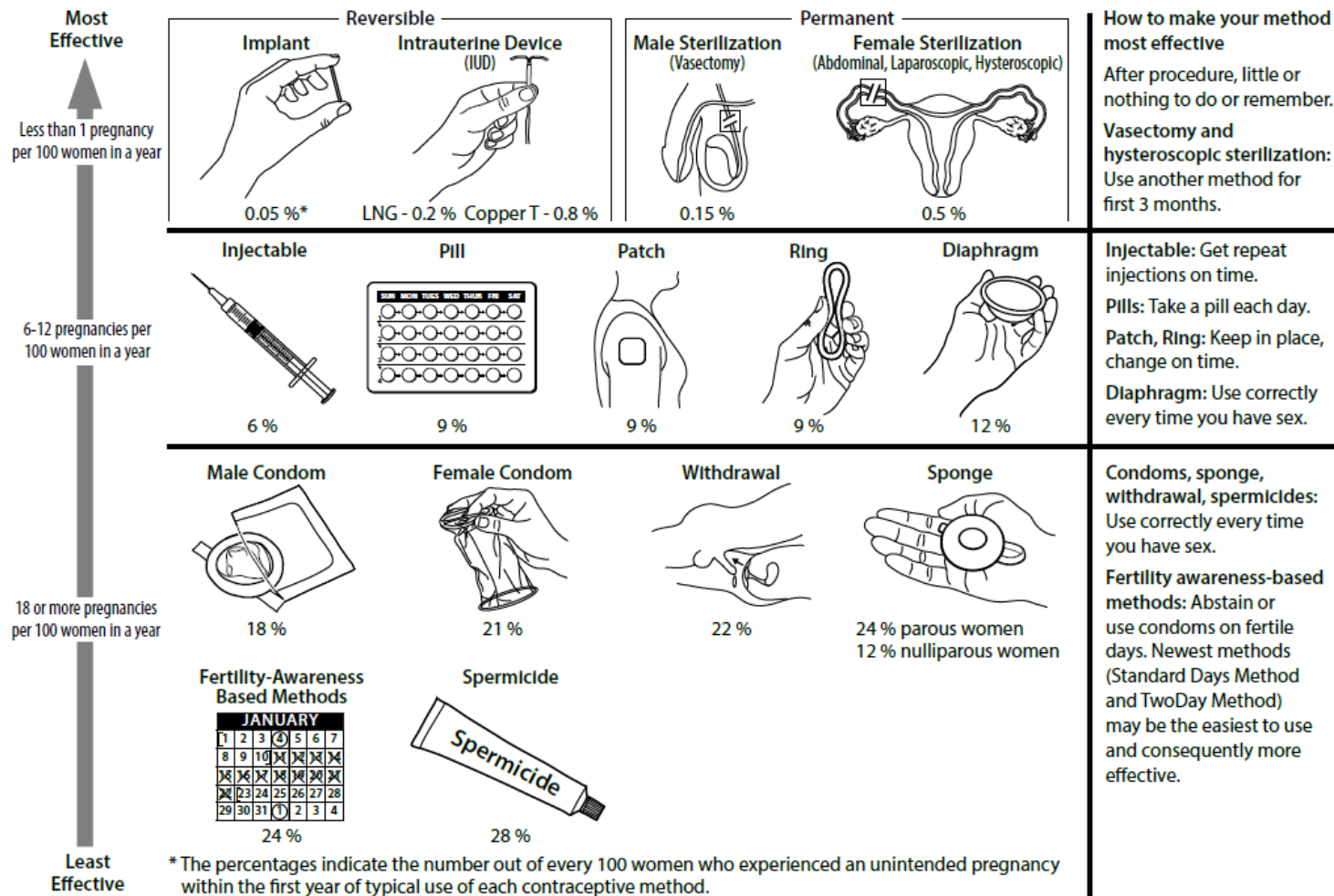
Pregnancy Spacing

- Over half of unintended pregnancies among women in the US occur within 2 years following delivery
- 35% of all pregnancies were conceived within 18 months of a previous birth (NSFG, 2006-2010) – “rapid repeat pregnancy”
 - 75% of those pregnancies are mistimed or unwanted
- Inter-pregnancy interval of less than 6 months is associated with highest level of adverse perinatal outcomes
- Women who used LARC had almost 4 times the odds of achieving an optimal birth interval compared with women who used less effective contraceptive methods

Adolescent Mothers

- 35% teenage moms will become pregnant within 2 years
- Adverse socioeconomic outcomes
 - Teens with 2 or more children by age 30 more likely to depend on welfare and forgo education
- Adverse birth outcomes
 - 17% of second births were preterm, compared to 12.6% for first births
 - 11% of second births were LBW, compared to 9% first births

Effectiveness of Family Planning Methods



CS 242797

CONDOMS SHOULD ALWAYS BE USED TO REDUCE THE RISK OF SEXUALLY TRANSMITTED INFECTIONS.

Other Methods of Contraception

Lactational Amenorrhea Method: LAM is a highly effective, temporary method of contraception.

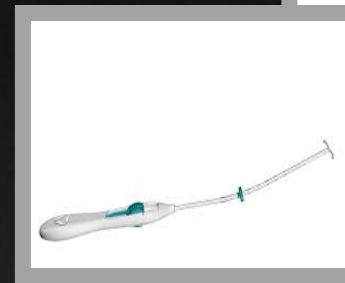
Emergency Contraception: Emergency contraceptive pills or a copper IUD after unprotected intercourse substantially reduces risk of pregnancy.

Adapted from World Health Organization (WHO) Department of Reproductive Health and Research, Johns Hopkins Bloomberg School of Public Health/Center for Communication Programs (CCP). Knowledge for health project. Family planning: a global handbook for providers (2011 update). Baltimore, MD; Geneva, Switzerland: CCP and WHO; 2011; and Trussell J. Contraceptive failure in the United States. Contraception 2011;83:397-404.



U.S. Department of Health and Human Services
Centers for Disease Control and Prevention

Barriers to Postpartum Contraception

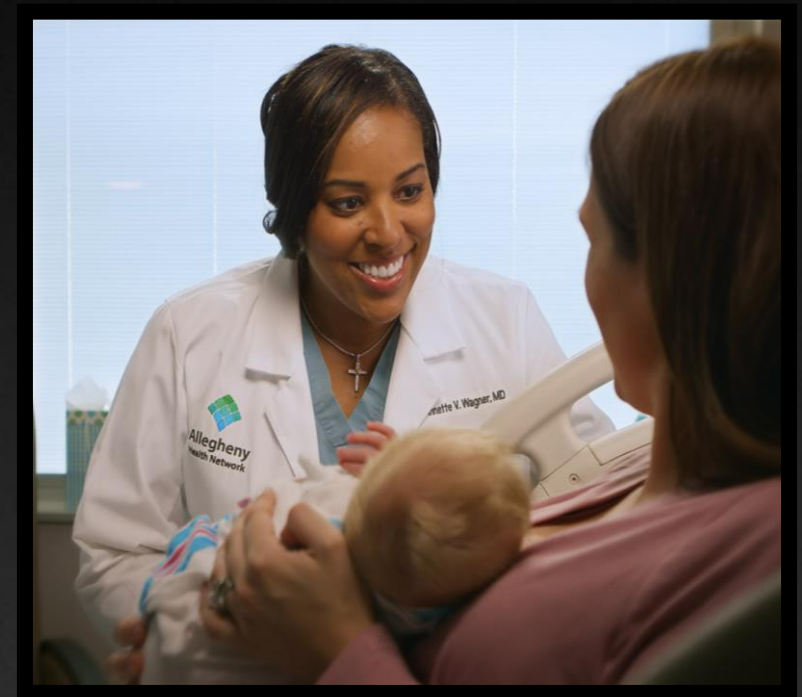


Zite N et al; *Obstet Gynecol* 2005
Seibel-Seamon et al, *J Repro Med* 2009
Zerden et al, *WHI* 2015

Bryant AS et al; *Mat and chld health j.* Nov 2006
Biggs MA et al; *Contraception.* Nov 2013
Thurman AR et al; *Obstet Gynecol.* Nov 2010

Immediate Postpartum Period

- Unique and convenient timing
 - Inpatient audience
 - Doctor is available
 - Patient is motivated
- Most women remain insured through the immediate postpartum period
- 80% of women wish to wait two years before becoming pregnant again





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Efficacy and Safety of Immediate Postpartum LARC



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CDC Medical Eligibility for Initiating Contraception

Method can be used without restriction	1
Advantages of use generally outweigh theoretical or proven risks	2
Method usually not recommended unless other, more appropriate methods are not available / acceptable	3
Absolute contraindication, method not to be used	4

CDC MEC

Condition	Sub-Condition	Cu-IUD		LNG-IUD		Implant		DMPA		POP		CHC	
		I	C	I	C	I	C	I	C	I	C	I	C
Postpartum (nonbreastfeeding women)	a) <21 days					1		1		1		4	
	b) 21 days to 42 days												
	i) With other risk factors for VTE					1		1		1		3*	
	ii) Without other risk factors for VTE					1		1		1		2	
	c) >42 days					1		1		1		1	
Postpartum (in breastfeeding or non-breastfeeding women, including cesarean delivery)	a) <10 minutes after delivery of the placenta												
	i) Breastfeeding	1*		2*									
	ii) Nonbreastfeeding	1*		1*									
	b) 10 minutes after delivery of the placenta to <4 weeks	2*		2*									
	c) ≥4 weeks	1*		1*									
	d) Postpartum sepsis	4		4									
Breastfeeding	a) <21 days postpartum					2*		2*		2*		4*	
	b) 21 to <30 days postpartum												
	i) With other risk factors for VTE					2*		2*		2*		3*	
	ii) Without other risk factors for VTE					2*		2*		2*		3*	
	c) 30-42 days postpartum												
	i) With other risk factors for VTE					1*		1*		1*		3*	
	ii) Without other risk factors for VTE					1*		1*		1*		2*	
	d) >42 days postpartum					1*		1*		1*		2*	

LARC during the Postpartum Period

Interval Continuation

- CU-IUD: 77%
- LNG-IUD: 79%
- Implant: 69%
- PPR/Depo: 41%

Postpartum Continuation

- IUDs: 73-89%
- Implant: 87%

- High satisfaction rates
- Greater IUD use among IPP placement than among intended interval placement at 6 and 12 months
- Elective discontinuation for both IUDs and implants on par with interval placement



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ACOG Opinion

The immediate postpartum period is a particularly favorable time for IUD or implant insertion. Women who have recently given birth are often highly motivated to use contraception, they are known to not be pregnant, and the hospital setting offers convenience for both the patient and the health care provider.



IUDs in the Immediate Postpartum Period

- Cochrane Review 2010, 2015
 - Safe, effective
 - no increase in bleeding, infection, perforation risk
 - Expulsions
 - higher rate postpartum versus interval
 - use of instruments, manual insertion, IUD modifications did not change expulsion rates
 - U/S may decrease perforation risk
 - Convenient for both the woman and her clinician

“The benefit of effective contraception immediately after delivery may outweigh the disadvantage of increased risk of expulsion.”

Expulsion Risk

- Vaginal delivery
 - 5-30% expulsion rate
- Cesarean delivery
 - 8% expulsion rate
- Tends to be higher among LNG-IUD than Cu-IUD (expert consensus data)



The Implant & Breastfeeding

- Systematic review
 - No difference between interval placement and immediate postpartum placement for:
 - Lactogenesis
 - Overall breastfeeding performance
- Randomized trial of immediate PP implant vs. nothing
 - Does not impact milk production or newborn milk intake
 - No difference in breastfeeding rates through 6 months postpartum

LNG IUD & Breastfeeding

- Non-inferiority RCT of immediate vs delayed LNG IUD placement
 - No difference in time to lactogenesis or in lactation failures
 - No difference in breastfeeding continuation or exclusive breastfeeding at 8 weeks
 - Follow-up to 6 months still being completed

Cost-Effectiveness

- Immediate postpartum implant
 - Prevents 191 unplanned pregnancies per 1000 women
 - Up to \$1,263 saved per implant
- Immediate postpartum IUDs
 - States saves \$2.94 for every dollar spent on device
 - Cost effective until expulsion/discontinuation rate reaches 56-70%
- On average, four patients need to receive a device (implant) during the immediate postpartum period to prevent one additional rapid repeat pregnancy
- Best cost analysis: Washington CI et al, Fertil Steril 2015;103:131–7



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Postpartum IUD Insertion

Equipment

■ **Post-placental:**

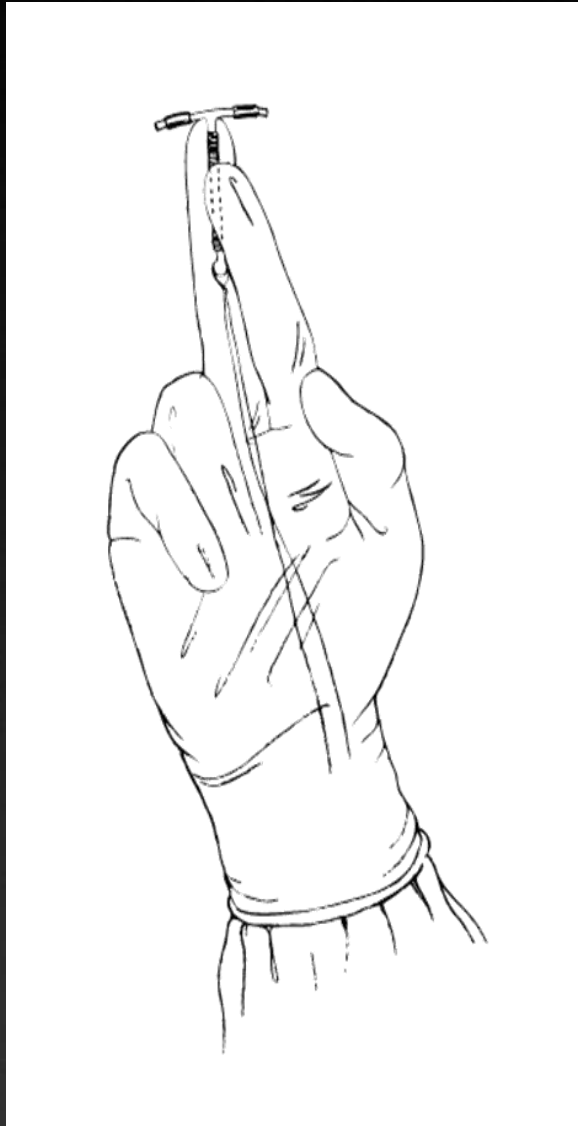
- ✓ Graves speculum
- ✓ Betadine and cotton/sponges
- ✓ Forceps
 - ✓ Long curved Kelly 32cm, Miltex #302505
 - ✓ +/- ring forceps for cervix
- ✓ Scissors

■ **Postpartum:**

- ✓ Bed that breaks away
- ✓ Light source



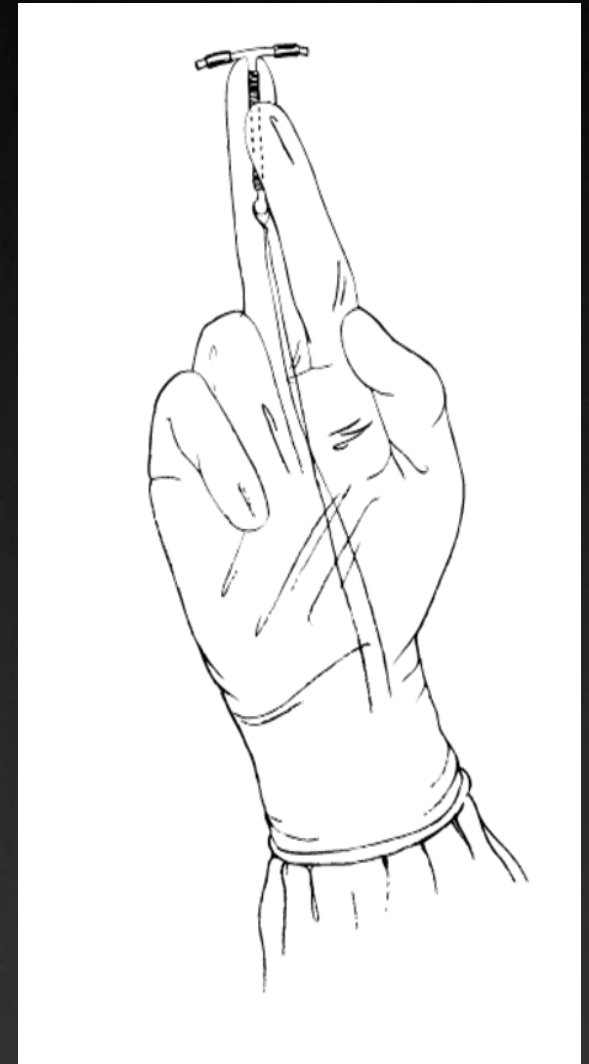
Insertion Techniques





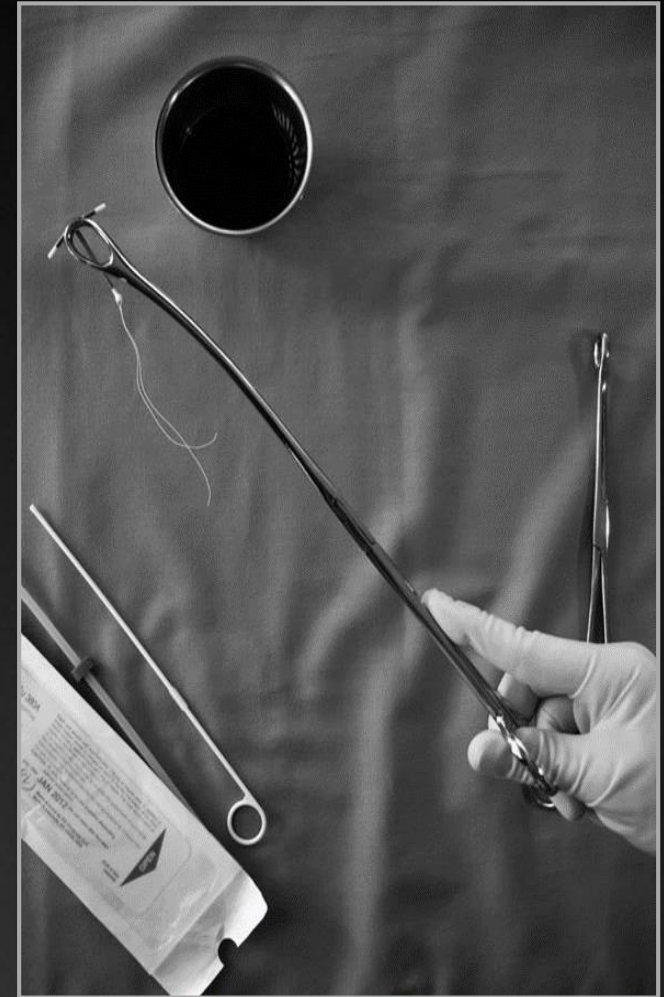
IUD Manual Insertion Method

1. Grasp the IUD between your 2nd and 3rd fingers
2. Insert your hand to the fundus
3. Use your other hand to palpate the fundus abdominally to confirm
4. Slowly open your fingers and remove them from the uterus



Ring Forceps Method

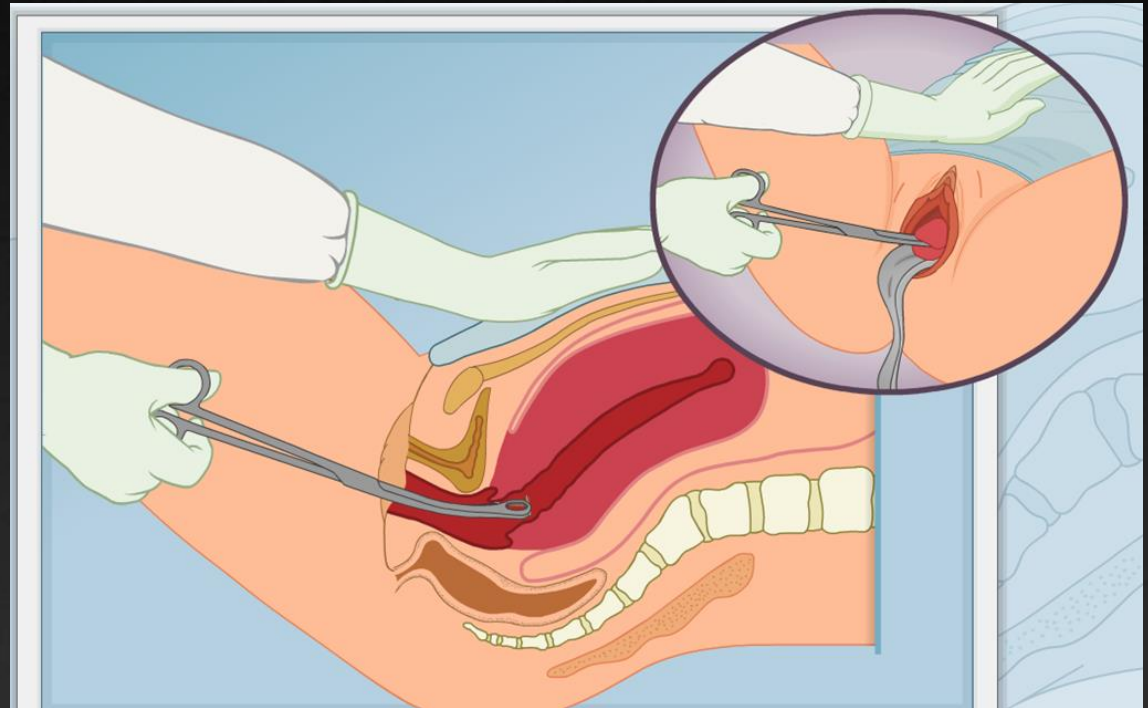
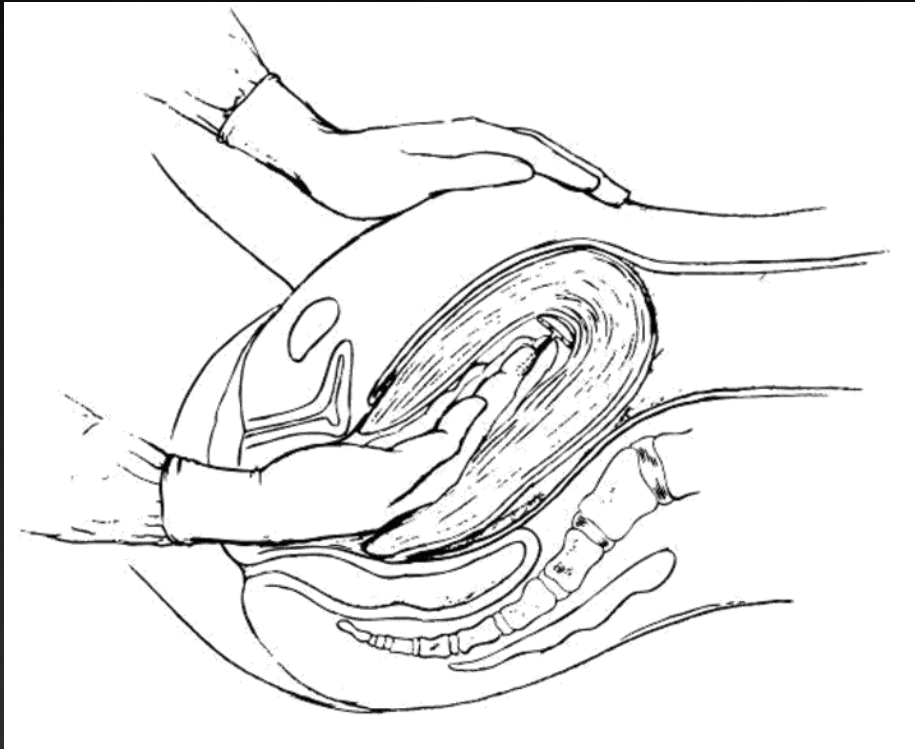
1. Grasp the IUD but do NOT close the ratchets
2. Insert the forceps through the cervix up to the fundus
3. Open the forceps and release the IUD
4. Slowly remove the forceps, keeping them slightly open





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Importance of Fundal Placement



STRONGLY recommend ultrasound guidance, especially for training

Immediate Postpartum Uterus Models



“Homemade” Model



Laerdal Mama-U Model
www.laerdal.com/us/

Training Videos

Stanford SPIRES

- <https://www.youtube.com/watch?v=uMcTsuf8XxQ>

GLOWM (FIGO)

- <https://www.youtube.com/watch?v=u4CwjtsA0dl&spfreload=10>

Mama-U trainer

- https://www.youtube.com/watch?v=-xNIKUI5v_0



Post-Vaginal Insertion

- Cut the strings flush with the external os
- Remove the speculum
- Repair any remaining lacerations

Cesarean Delivery

Placement

1. Perform routine external massage and internal sweep
2. Cut the strings of the IUD at the end of the handle (if older inserter)
3. Place the IUD at the fundus
4. Have an assistant hold the IUD in place while moving the strings through the cervix (if possible)
5. Close the hysterotomy – do not incorporate the strings into the closure

Immediate Post-Partum

- NOT immediately post-placental (>10mins)
- In addition to the other equipment:
 - Bed that breaks away
 - Light source
- Can offer premedication with ibuprofen (no evidence)
- Empty bladder
- Graves speculum more comfortable
- May need ring forceps as a tenaculum

Key Take Home Points

- Postpartum can be an ideal time for LARC
- High patient satisfaction and continuation of both IUDs and implants
- No effect on lactogenesis or breastfeeding continuation
- IUDs have higher expulsion rate compared to interval placement
- Highly cost-effective



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QUESTIONS?