IUDs and Implants: Comparing Long Acting Reversible Contraceptives

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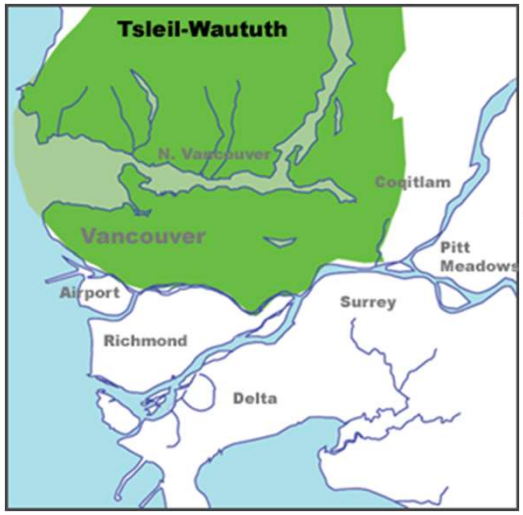
We would like to acknowledge that we are gathered today on the traditional territories of the Musqueam, Squamish and Tsleil-Waututh peoples.

Source: www.johomaps.net/na/canada/bc/vancouver/firstnations/firstnations.html



Conflict of Interest Disclosures

- I have been on national advisory boards for Bayer and received clinical teaching honoraria from Bayer, Organon & Merck

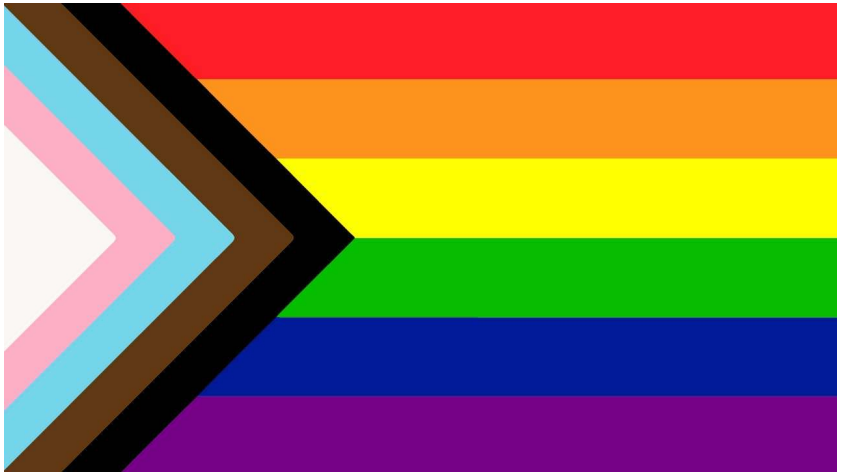
- No funding, planning or organization of this presentation has been provided by industry

Mitigation of Conflicts of Interest

- I will be presenting all long acting reversible contraceptives available on the Canadian market
- I will be using SOGC Canadian Contraceptive Guidelines

Gender Diversity Acknowledgement

Contraception benefits individuals, couples, and society at large. While scientific evidence and product labelling may be based on the experiences of cisgender women, I recognize that trans, non-binary, and gender diverse individuals can also benefit from the strategies discussed.



Learning Objectives

Participants will be able to:

- Describe the contraceptive landscape and unmet needs for contraception in Canada
- Compare the benefits and risks of the etonogestrel subdermal implant and intrauterine contraception
- Review tips and tricks for IUD insertion

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How often do you insert IUDs in your office?

ⓘ Start presenting to display the poll results on this slide.

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Check the option that applies to you

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LARCs: Long-acting Reversible Contraceptives

What are LARCs?

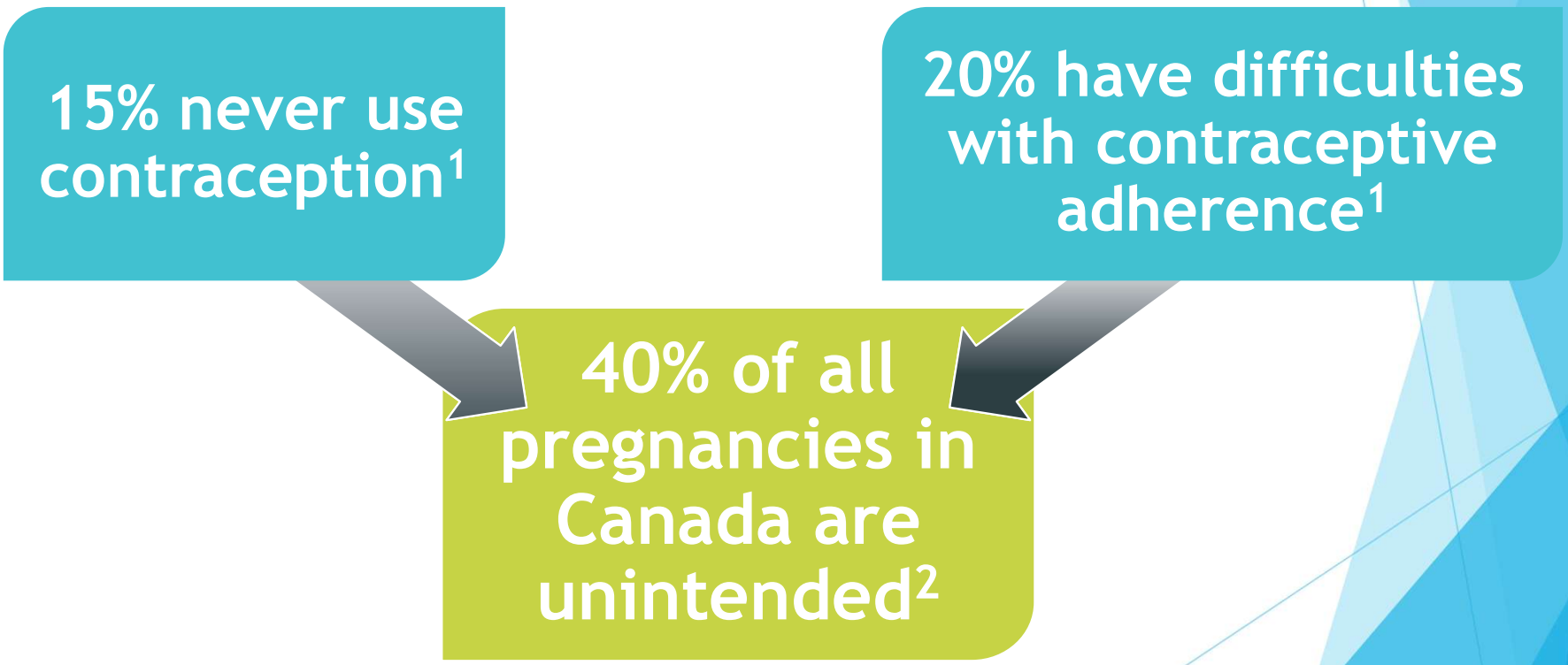
- Reversible contraceptives that require administration less than once per year
- Include subdermal hormonal implants and intrauterine contraceptives (copper or levonorgestrel IUCs)[1]

IUC, intrauterine contraceptive; LARC, long-actiing reversible contraceptives

1. Hauck B, Costescu D. J Obstet Gynaecol Can 2015; 37:606-16.

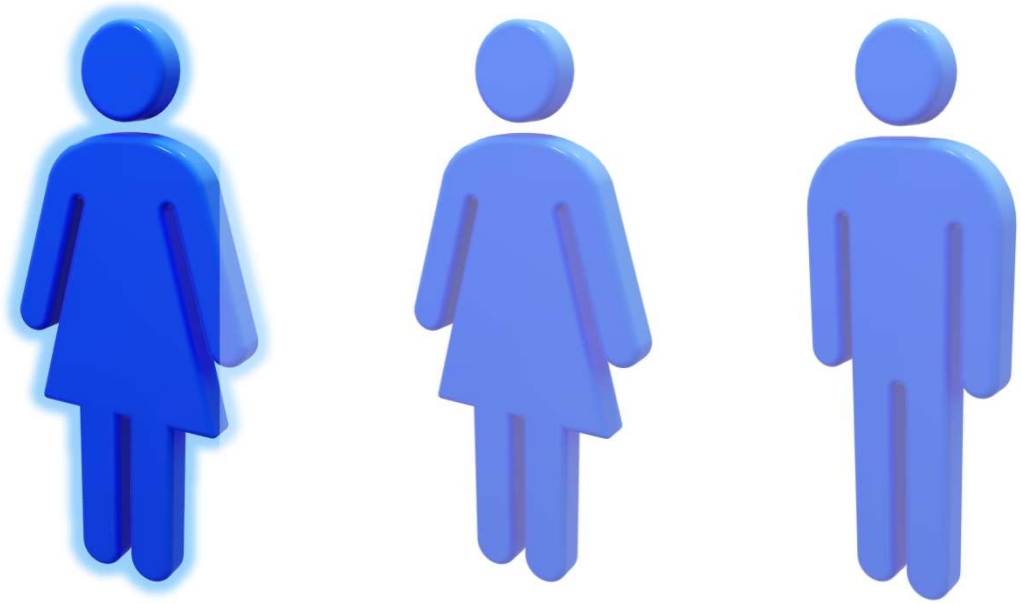
Canadian Contraceptive Landscape

Contraception in Canada



1. Black A et al. *J Obstet Gynaecol Can* 2009;31:627-40; 2. Black AY et al. *J Obstet Gynaecol Can* 2015;37:1086-97.

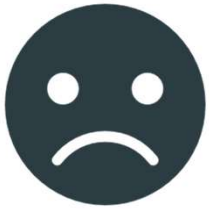
31% of Canadians With a Risk of Becoming Pregnant Will Have an Abortion in Their Lifetime



Norman WV. Induced abortion in Canada 1974-2005: trends over the first generation with legal access. Contraception. 2012 Feb;85(2):185-91. doi: 10.1016/j.contraception.2011.06.009. Epub 2011 Aug 4. PMID: 22036474.

Are people Happy on their Current Contraception Practice Assessment Program

25%
Unhappy



28%
Somewhat Unhappy

13%
Indifferent

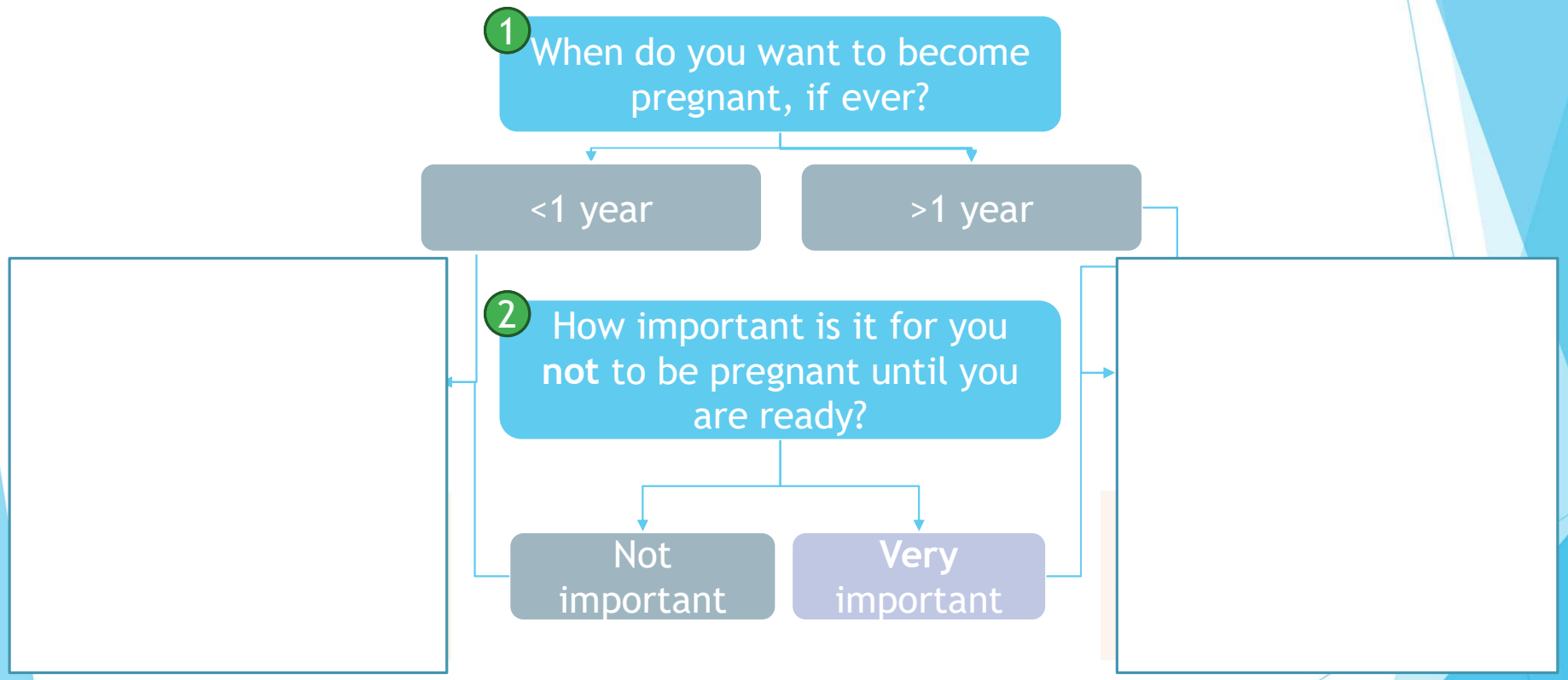
17%
Somewhat Happy

17%
Perfectly Happy

53% were dissatisfied with their contraceptive method before counselling

Cook J, et al. Intrauterine Contraception: Knowledge and Prescribing Practices of Canadian Health Care Providers. *Journal of Obstetrics and Gynaecology Canada* 2019;41(8):1084-92.

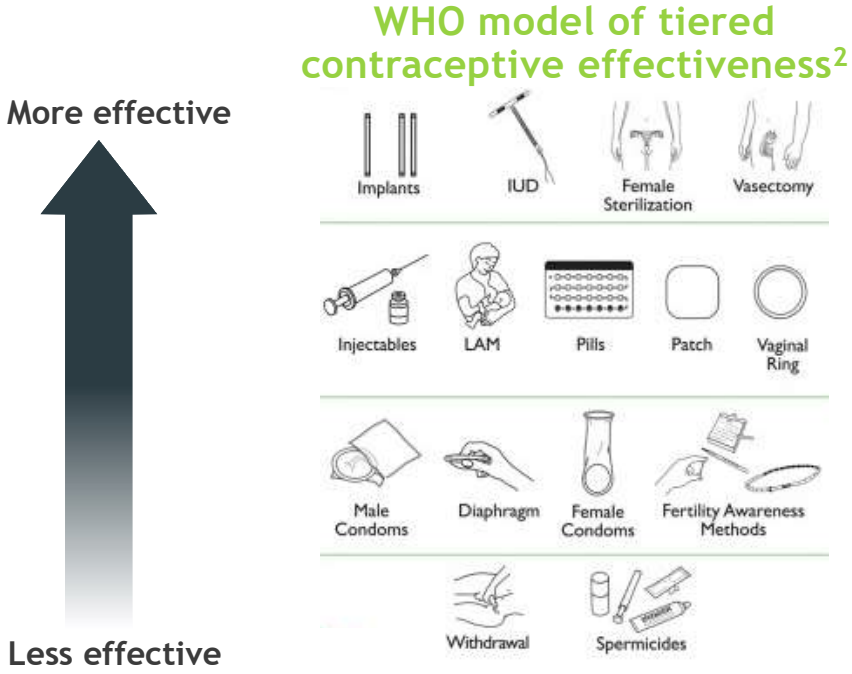
Contraceptive Counselling Tool



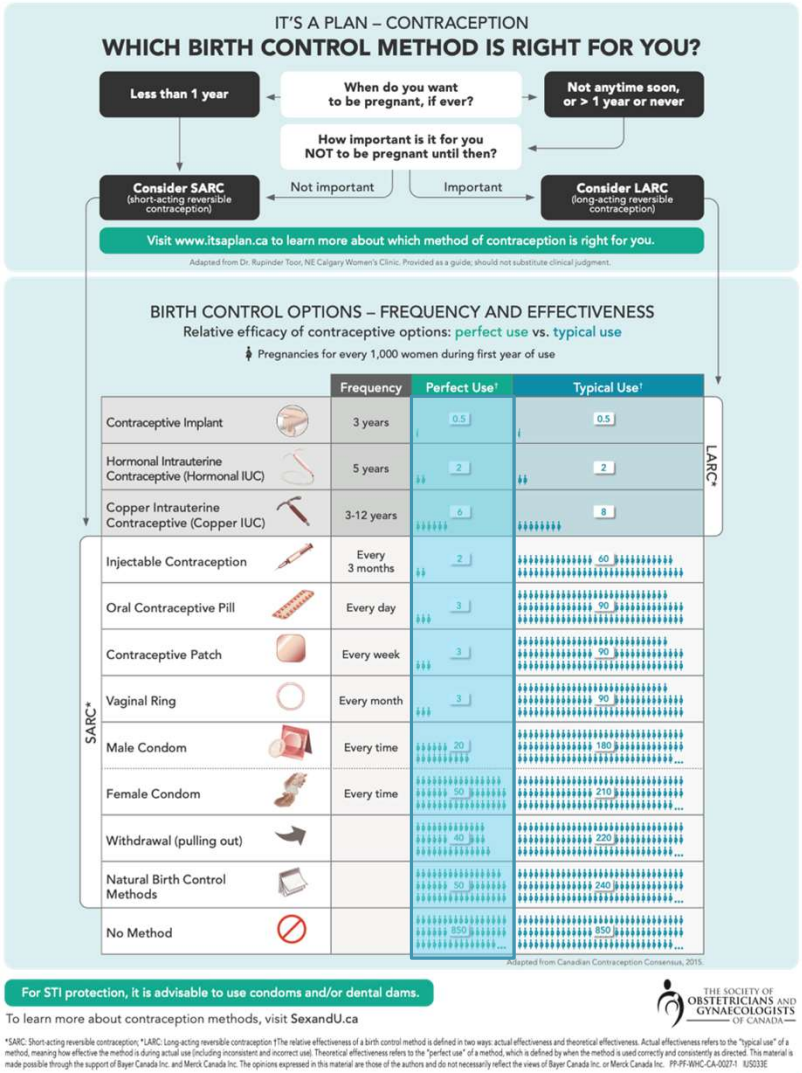
Adapted from Dr Rupinder Toor, The IUD Women's Clinic. Printed and used with permission from the SOGC. *provided as a guide; not a validated tool and should not replace medical judgement

Cook J, et al. *J Obstet Gynaecol Can* 2019;41(8):1084-92.

Tiered Effectiveness Counselling



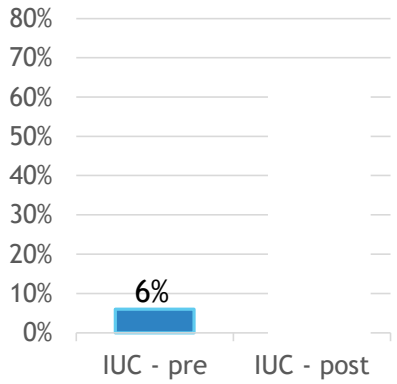
Stanback, John et al. "WHO Tiered-Effectiveness Counseling Is Rights-Based Family Planning." Global health, science and practice vol. 3,3 352-7. 12 Aug. 2015



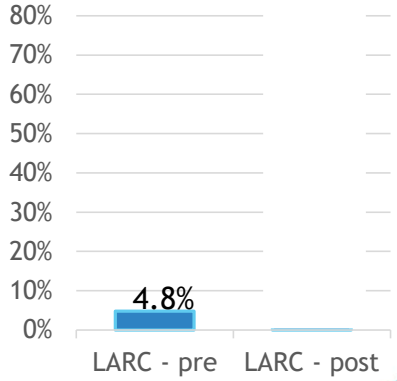
Adapted from Black A *et al*. Canadian Contraception Consensus (Part 1 of 4). *J Obstet Gynaecol Can* 2015;37(10):936-42.

What Happens After Contraceptive Counselling?

- Practice Assessment Program 5009 patients in Canada free counselling only



- CHOICE 9,256 patients free contraceptive counselling and contraception



Cook J, et al. Intrauterine Contraception: Knowledge and Prescribing Practices of Canadian Health Care Providers. *Journal of Obstetrics and Gynaecology Canada* 2019;41(8):1084-92.

Peipert JF, et al. Preventing unintended pregnancies by providing no-cost contraception. *Obstet and Gynecol* 2012; 120(6):1291-97.

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What is the continuation rate of the pill at one year?

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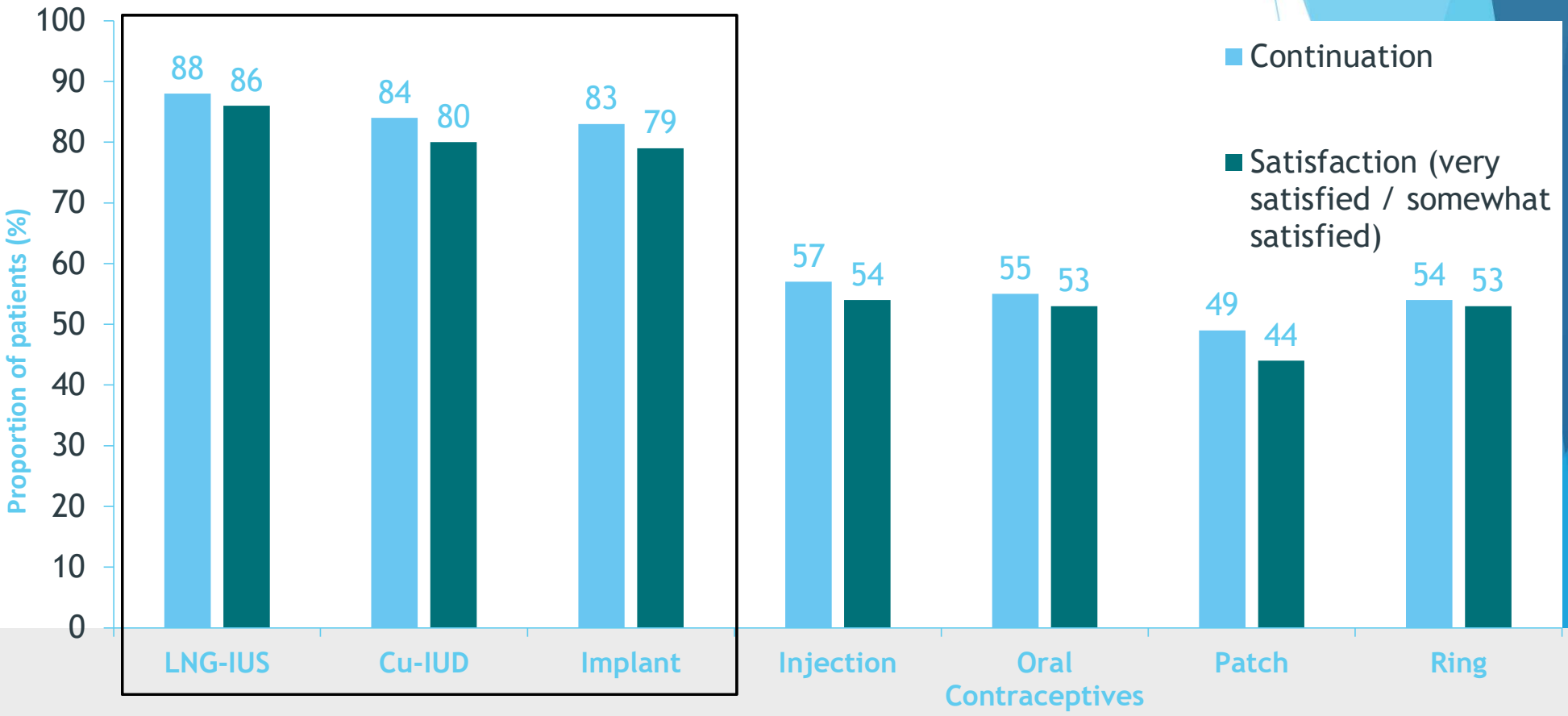
LARCs Have the Highest Continuation Rates



Peipert JF, et al. Continuation and Satisfaction of Reversible Contraception. *Obstet Gynecol* 2011;117:1105-13.

Canadian Position Statements on LARCs

THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA

Canadian Contraception Consensus

"LARCs are the **most effective method of reversible contraception**, have high continuation rates, and should be considered when presenting contraceptive options to any woman of reproductive age."[1]

Canadian Paediatric Society

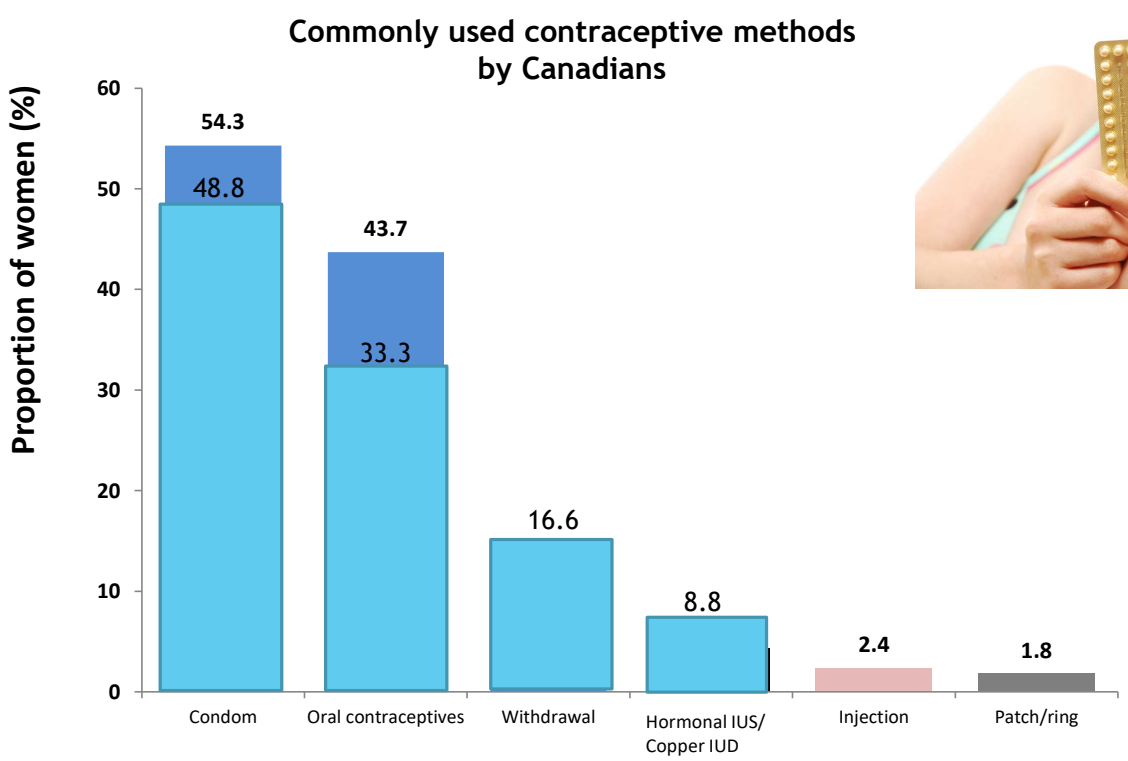
Contraceptive care for Canadian Youth

"This statement recommends using **LARCs as first-line contraception for Canadian youth**….[These methods] have the lowest failure rate and are first-tier options."[2]

LARCs, long-acting reversible contraceptives

Black A et al. *J Obstet Gynaecol Can* 2015;37:936-42; 2. Di Meglio G et al. *Paediatr Child Health* 2018;23:271-7.

Commonly Used Contraceptive Methods by Canadians and Continuation at 12 Months



Black A *et al.* Contraceptive use among Canadian women of reproductive age: results of a national survey. *J Obstet Gynecol* 2009;31(7): 627-640. Peipert JF *et al.* Continuation and satisfaction of reversible contraception. *J Obstet Gynecol* 2011;117:1105–13. Black A *et al.* CONTRACEPTIVE USE AND TEN-YEAR TRENDS IN CANADIAN WOMEN OF REPRODUCTIVE AGE. *J Obstet Gynecol 2019;41(5):* 711–712.


Contraceptive
Implant

Etonogestrel Subdermal Implant:

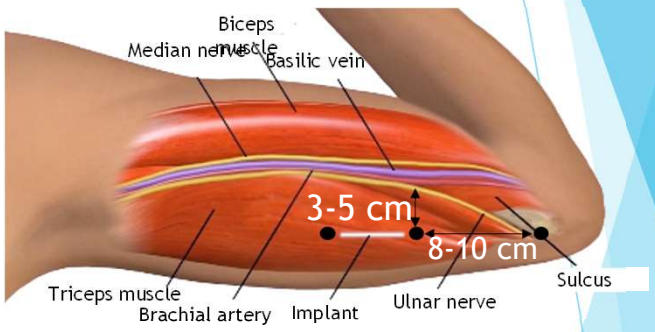
- Why?
  - LARCs with non-uterine placement
  - Expand Estrogen free options
  - Expand LARC options for Canadians - Available in 110 countries
- When?
  - Nexplanon approved by Health Canada May 2020
- What is it?
  - Subdermal, single rod 4 cm long, 2 mm wide
  - Progestin only - 68mg Etonogestrel
    - In Nuva Ring and is active metabolite of desogestrel, used in oral contraceptives (Marvelon)
  - Radiopaque Barium Sulfate core –X-ray, CT, U/S, MRI
  - Effective for up to 3 years

Nexplanon (etonogestrel extended release subdermal implant) product monograph. Kirkland, QC: Merck Canada Inc; 2020; Rowlands S, Searle S. Open Access Journal of Contraception 2014;5:73-84.

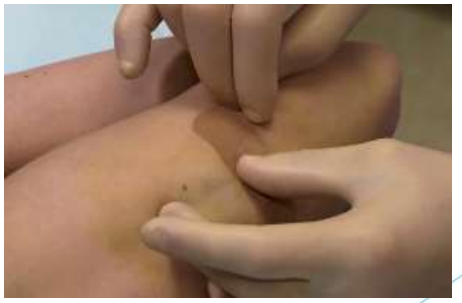
Etonogestrel Subdermal Implant: Insertion Site

- Under the skin at the inner side of the non-dominant upper arm

Insertion site



Implant post-insertion



Nexplanon (etonogestrel extended release subdermal implant) product monograph; Kirkland, QC: Merck Canada Inc; 2020. Image courtesy of Nexplanonvideos.com.

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What can we tell our patients about the serum concentration of the progestin from the implant compared to the ring/pill?

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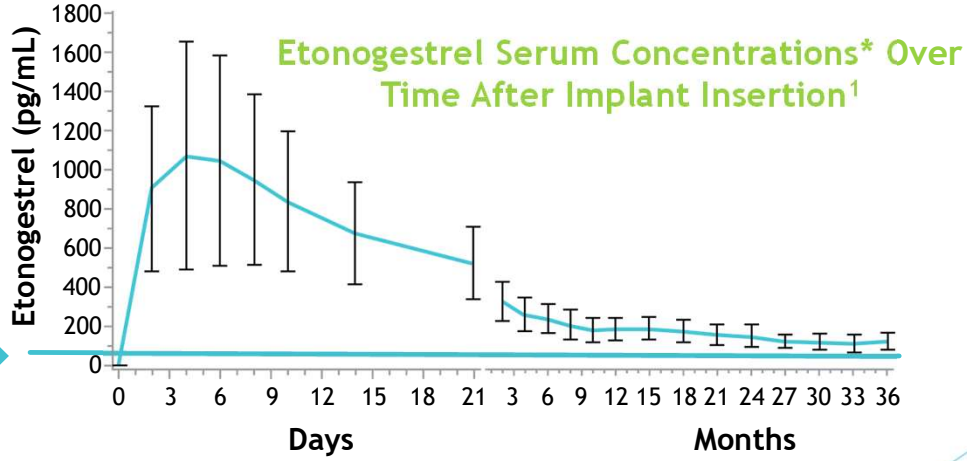
Mechanism of Action and Pharmacokinetics

- Inhibition of ovulation, thickens cervical mucus and thins endometrial lining
- Delivers up to 70 mcg etonogestrel per day
- After **implant removal**, etonogestrel levels drop **rapidly** - Return to fertility as soon as 7 to 14 days after removal[1]

KEY TAKEAWAY

Implant has 10% of serum progestin concentration of COC and nuva ring in steady state

Ovulation inhibition (>90 pg/mL)



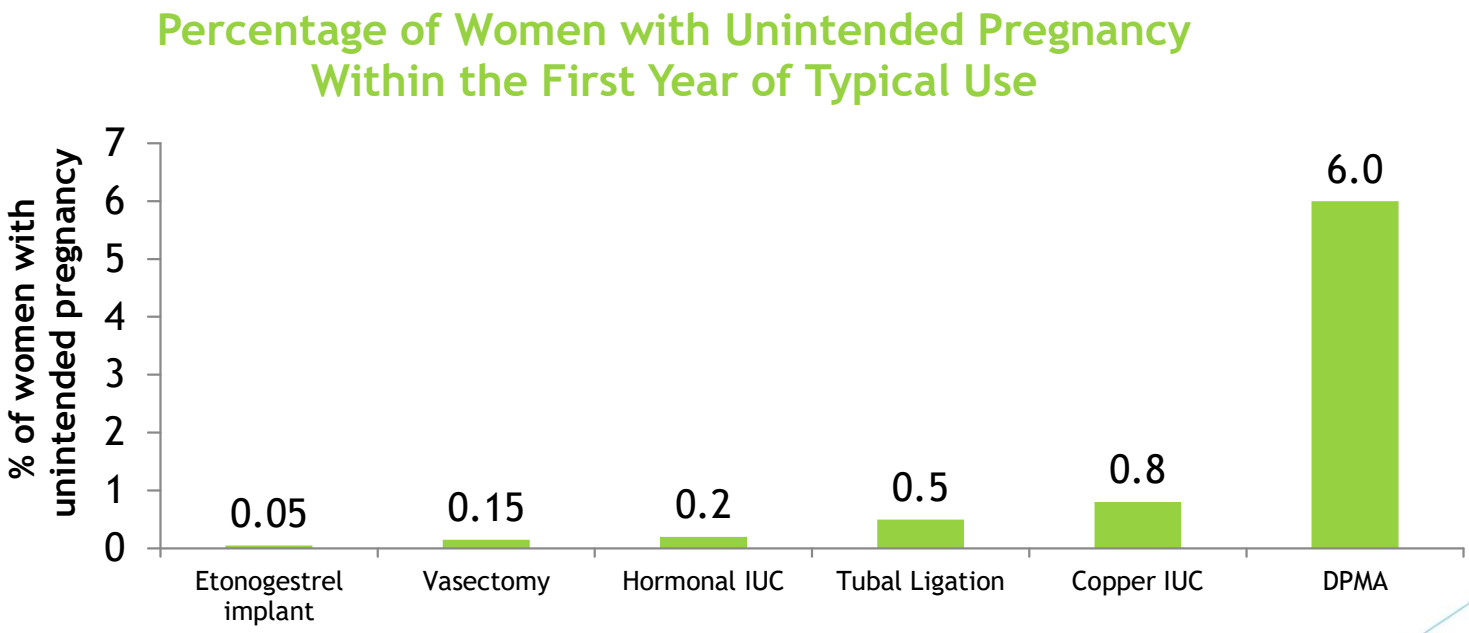
Modified from product monograph

Palomba S, Falbo A, Di Cello A, Materazzo C, Zullo F. Nexplanon: the new implant for long-term contraception. A comprehensive descriptive review. *Gynecol Endocrinol* 2012;28:710-21.

New Zealand data sheet. Marvelon® 28 0.15 mg/0.03 mg tablets. Auckland, New Zealand: Merck Sharp & Dohme (New Zealand) Limited; 2018.

Indication

- Contraception only



DPMA, depot medroxyprogesterone acetate; IUC, intrauterine contraceptive
Black AY et al. *J Obstet Gynaecol Can* 2015;37:936-42.

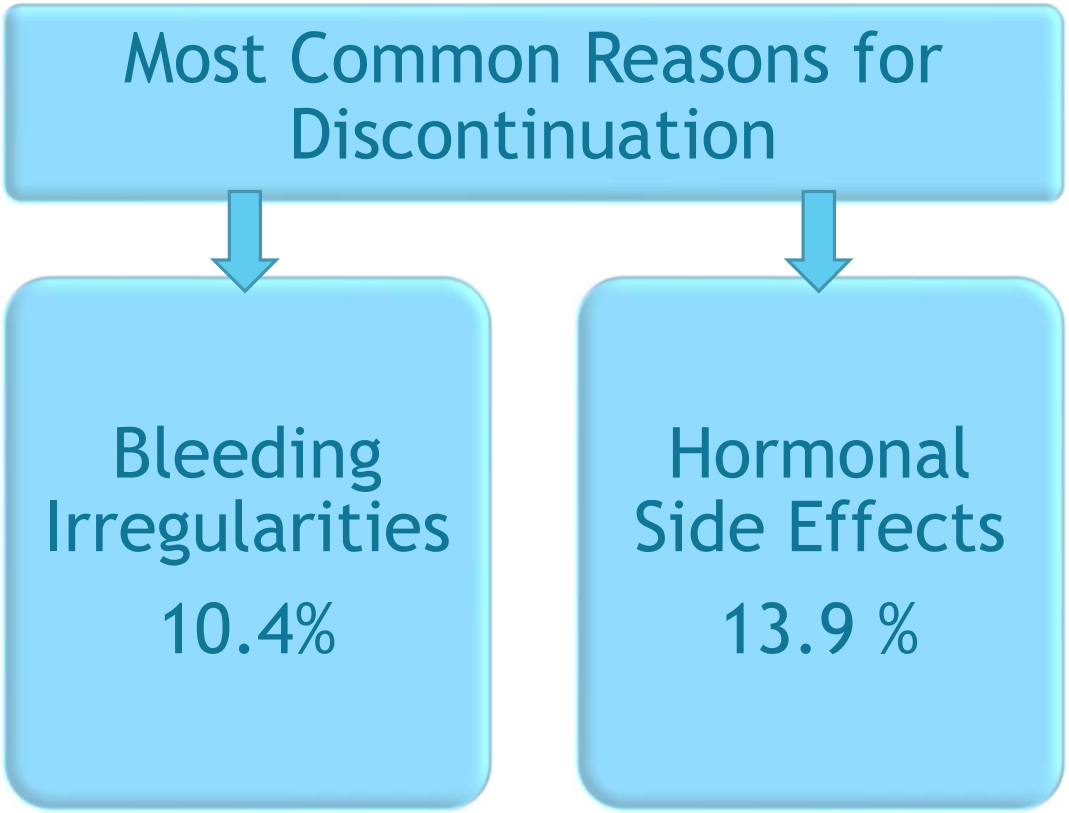
Contraindications for Implant Use

Product monograph[1]	CDC SPR[2] and SOGC[3] MEC 3/ 4
Progestin-only contraceptives should not be used in the presence of any of the conditions listed below. If the conditions appear during use, the product should be stopped immediately. • Known or suspected pregnancy • Known or suspected breast cancer • Personal history of breast cancer or other progestin-sensitive cancer, now or in the past • Liver tumors, benign or malignant, or active liver disease • ~~Undiagnosed abnormal genital bleeding~~ • Current or past history of thrombosis or thromboembolic disorders	MEC 4 • Current breast cancer (within 5 years) MEC 3 • Past breast cancer and no evidence of current disease for 5 years • Liver tumors: malignant tumors, hepatocellular adenoma • Severe (decompensated) cirrhosis • Unexplained vaginal bleeding • SLE with positive or unknown antiphospholipid antibodies

CDC SPR, Centers for Disease Control and Prevention selected practice recommendations; MEC, medical eligibility criteria; SLE, systemic lupus erythematosus; SOGC, Society of Obstetricians and Gynaecologists of Canada

1. Nexplanon (etonogestrel extended release subdermal implant) product monograph. Kirkland, QC: Merck Canada Inc; 2020; 2. Curtis KM et al. *MMWR Recomm Rep* 2016;65:1-66;
3. Black A et al. *J Obstet Gynaecol Can* 2016;38:279-300.

Side Effects



Side Effects - Bleeding

Bleeding patterns during the first 2 years of use*

Bleeding pattern	Definition	% of 90-day intervals with this pattern
Amenorrhea	No bleeding or spotting	22.2%
Infrequent	<3 bleeding/spotting episodes	33.6%
Frequent	More than 5 bleeding/spotting episodes	6.7%
Prolonged	Any bleeding/spotting episode > 14 days	17.7%

55.8 % no bleeding or infrequent bleeding

Early favourable bleeding*
(N=325 [60.5% of study cohort])

80% remained favourable at 1 year

Early unfavourable bleeding*
(N=212 [39.5% of study cohort])

51% improved to favourable at 1 year

*Based on 3315 recording periods of 90 days duration in 780 women, excluding the first 90 days after implant insertion
Nexplanon (etonogestrel extended release subdermal implant) product monograph. Kirkland, QC: Merck Canada Inc; 2020.

*Days 29 to 118. The adjusted reference period was chosen to minimize the effects of initial bleeding following implant insertion and overlapped from day 91 to day 118 with the second reference period.
Mansour D et al. Contraception 2019;100:264-8.

Reasons for Treatment Discontinuation of Etonogestrel Subdermal Implant

- Integrated analysis of data from 11 international studies of etonogestrel implant over 1 to 5 years (942 patients, including 308 patients who discontinued use)

Reason for discontinuation	Etonogestrel implant (N=942)
Any Adverse Event	**13.9%**
Emotional lability	2.3%
Weight increase	2.3%
Headache	1.6%
Acne	1.3%
Depression	1.0%

LNG-52mg 12.9%

Blumenthal PD et al. *Eur J Contracept Reprod Health Care* 2008;13(Suppl 1):29-36.
Andersson K. et al. *Contraception* 1994; 49:56-72

Adverse Events on Inquiry

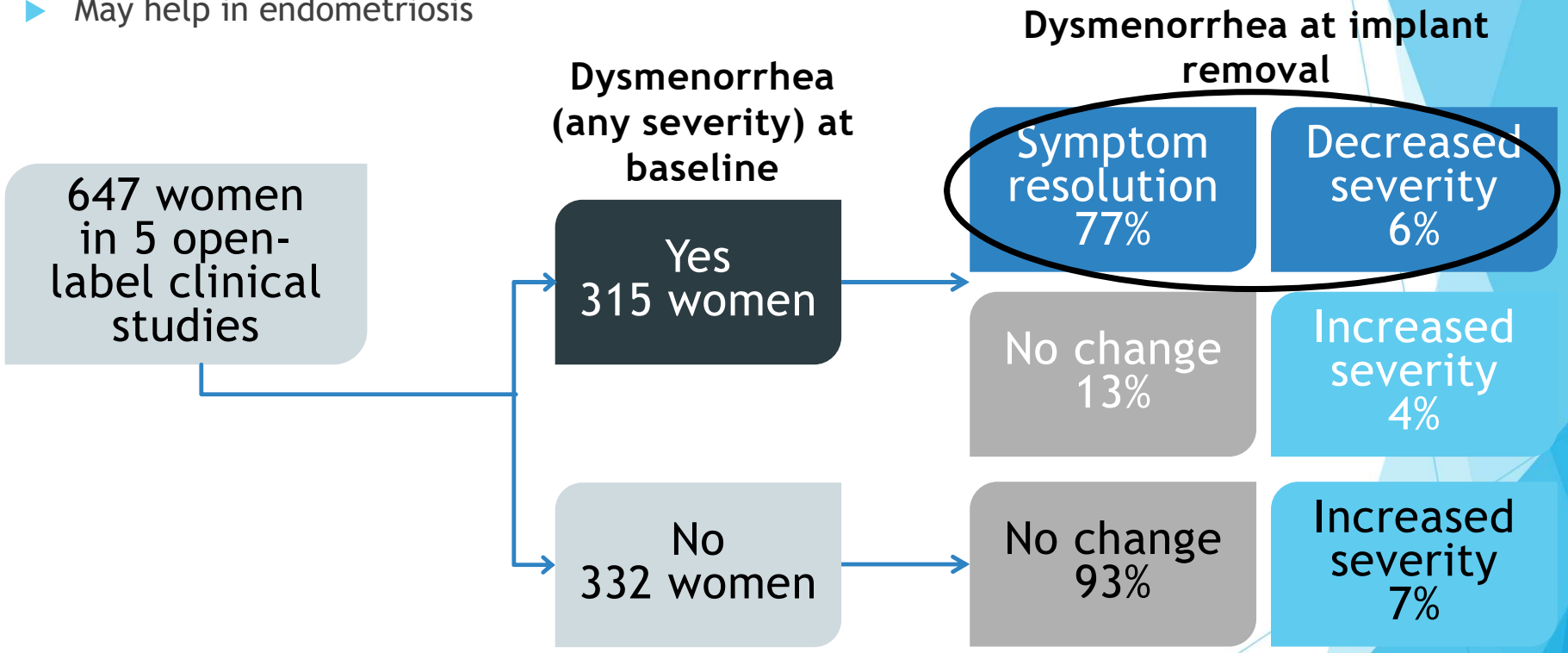
Adverse event Reported on Inquiry	Etonogestrel implant (N=942)	LNG-IUS 52mg (N=254)	LNG-IUS 19.5mg (N=245)
Acne	11.8%	28.3%	22.4%
Headache	15.5%	17.3%	13.1%
Altered mood	5.8%	9.8%	10.2%
Increased weight	12.0%	8.3%	11.4%
Breast pain	10.2%	7.1%	11.4%

ENG less androgenic than LNG

Nexplanon (etonogestrel extended release subdermal implant) product monograph. Kirkland, QC: Merck Canada Inc; 2020.
Gemzell-Danielsson K et al. A randomized, phase II study describing the efficacy, bleeding profile, and safety of two low-dose levonorgestrel-releasing intrauterine contraceptive systems and Mirena. Fertil Steril 2012;97:616-622.

Dysmenorrhea

- May help in endometriosis

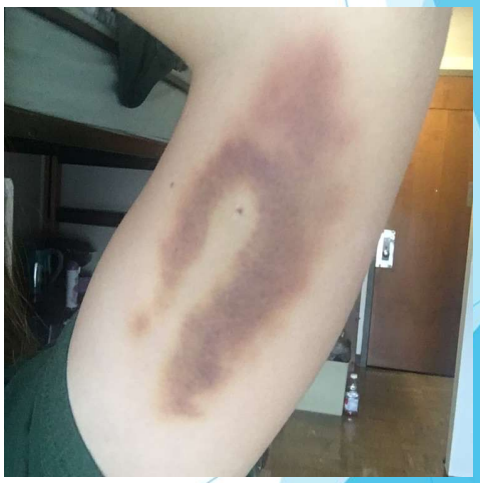


Mansour D et al. *Eur J Contracept Reprod Health Care* 2008;13(suppl 1):13-28.

Risks

Complications are related to insertion and removal procedures

- Implant site reactions - 8.6% of women - erythema (3.3%), hematoma (3.0%), bruising (2.0%), pain (1.0%) and swelling (0.7%)
- Infection - uncommon
- Expulsion – rare if incomplete insertions or infections
- Broken or bent implants or encased in fibrous tissue
- Migration
  - Muscle or fascia
  - Blood vessel – rare but led to insertion location change in 2018
    - Blood vessels in arm, pulmonary artery 1.3-31.7/million



No concern re: bone mineral density – estradiol levels maintained

Nexplanon (etonogestrel extended release subdermal implant) product monograph. Kirkland, QC: Merck Canada Inc; 2020.

Should I choose an IUD or Implant Doc?

	IMPLANTS	IUD
Cost (Pharmacare plans, Compassionate programs)	$300	$70-400
Years	3	3-10
Removal for hormonal SE	13.9%	12% (LNG) vs 2% (Cu)
Removal for bleeding	10.4%	5.6%(LNG) vs 18% (Cu)
Dysmenorrhea & heavy menstrual bleeding	Not indicated but may help	LNG 52mg indicated, LNG 19.5mg may help
Continuation Rates	>80%	>80%
Other considerations	Non-uterine placement (trauma, previous expulsions), ovulation suppression, access to removal!	Decreased endometrial cancer, easily reversible

Phillips, S. et al. Continuation of copper and levonorgestrel intrauterine devices: a retrospective cohort study. *Am J Obstet Gynecol*. 2017 Jul; 217(1): 57.e1–57.e6.

With whom Should I Discuss the Etonogestrel Subdermal Implant?

- Anyone looking for very effective birth control
- Those who need non-estrogen options
- Those who would benefit from non-uterine placement – no local inserter, IUD expulsion hx, uterine anomalies, hx of sexual trauma, gender diversity, developmental delay
- Other considerations:
  - Ovulation suppression
  - Patient looking for ‘low hormone dose’ options
  - Unfavourable response to other hormonal options
  - Improve painful periods? Decrease menses?
  - Postpartum, post abortion

Initiation

- History
  - Complete medical history - any contraindications
  - Menstrual history, contraceptive history, sexual history
  - Meds & Allergies - consider antiseptic or anesthetic used during insertion
- Counselling
  - Review benefits and risks of etonogestrel subdermal implant
  - Obtain informed consent
- Physical examination - guided by contraindications
- Investigations – UPT, STI, PAP
- Timing
  - Any time pregnancy can be reasonably ruled out - SOGC
  - Postpartum and breastfeeding – no effect on milk quality or quantity
  - Post abortion 1st or 2nd trimester

KEY TAKEAWAY

Utilize back-up contraception and/or overlap for 7 days

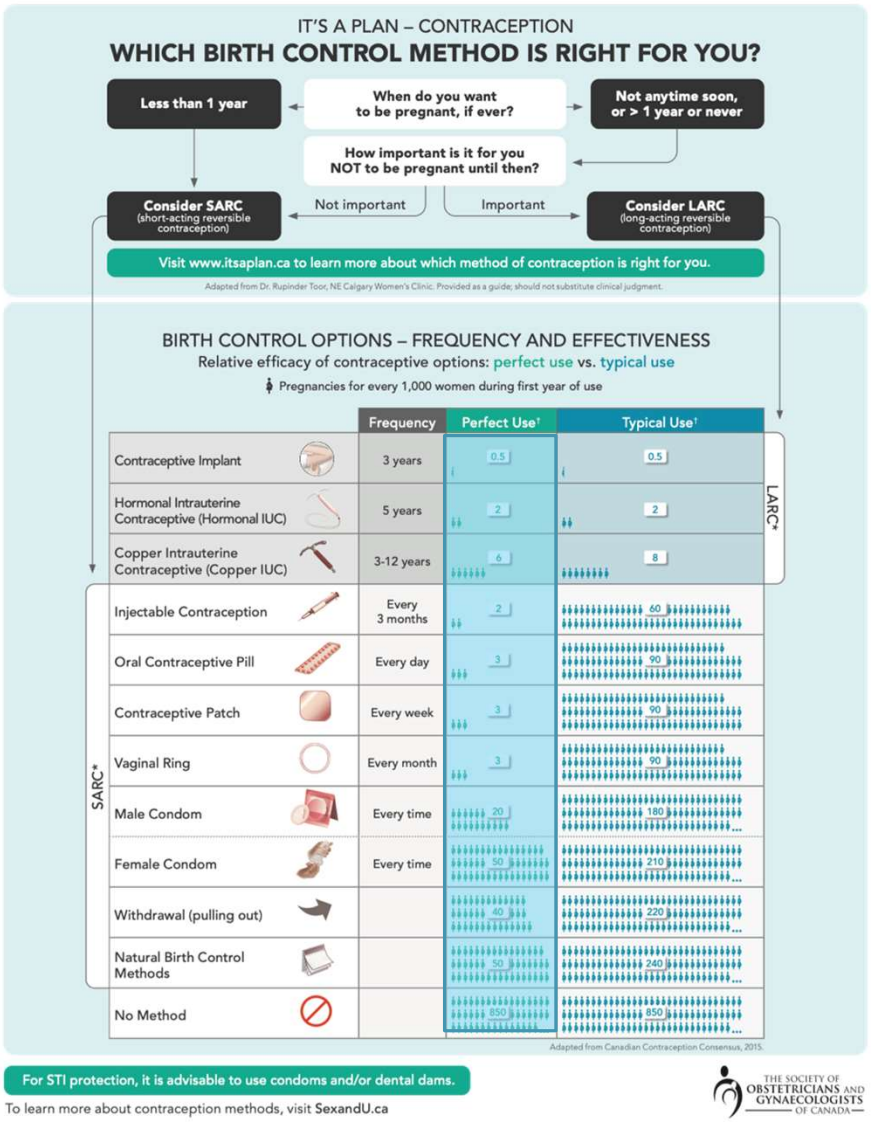
When to follow up

- Side effects
  - Hormonal – consider following vs removal, assess for any other possible causes
  - Bleeding irregularities – assess for other causes: STIs, pregnancy etc.
- Pregnancy
  - Remove
  - No increase in pregnancy loss or birth defects
- Implant is not palpable
  - Locate with imaging & remove - to manage the risks of migration

Intrauterine Contraception

Canadian Intrauterine Contraceptives

Intrauterine contraceptive	Duration of use (years)	COVID	Dose (mg/day LNG) (surface area of Cu)	Length (mm)	Width (mm)
LNG IUDs:					
Kyleena (LNG-IUS 19.5mg)	5	**5**	9 average mcg/day	30	28
Mirena (LNG-IUS 52mg)	5	**7**	14 average mcg/day	32	32
Copper IUDs:					
Flexi-T 300	5	**5**	**300 mm^2**	28	23
Flexi-T 300+	5	**5**	**300 mm^2**	32	28
Flexi-T 380+ (sleeves)	5 (12)	**12**	380 mm^2	32	28
Liberte UT 380 Standard	5	**7**	380 mm^2	35.4	32
Liberte UT 380 Short	5	**7**	380 mm^2	28.4	32
Liberte TT 380 Standard (sleeves)	10 (12)	**12**	380 mm^2	34	29.9
Liberte TT 380 Short (sleeves)	5 (12)	**12**	380 mm^2	29.5	23.2
Mona Lisa 10 (sleeves)	10 (12)	**12**	380 mm^2	35.85	31.85
Mona Lisa 5 Standard	5	**7**	380 mm^2	31.9	31.8
Mona Lisa N (ST 300)	3 (5)	**5**	**300 mm^2**	29	23
Mona Lisa 5 Mini (380)	5	**7**	380 mm^2	24	30



Adapted from Black A *et al*. Canadian Contraception Consensus (Part 1 of 4). *J Obstet Gynaecol Can* 2015;37(10):936-42.

Emergency contraception

	Copper IUD (Liberte, Flexi-T..)	52 mg LNG IUD (Mirena)	Ulipristal Acetate (Ella)	Levonorgestrel1.5mg one dose (Plan B..)
Use from UPI	7 days	5 days	5 days	5 days
Failure Rate	0.01%	0.3%	Up to 2.2%	Up to 3.2%
BMI concerns	nil	nil	>30	>25
Ongoing Contraception	Provided	Provided	Wait 5 days for restart then 14 day back up	Restart then 7 day back up

Dunn S, Guilbert E, Burnett M, Aggarwal A, Bernardin J, Clark V, Davis V, Dempster J, et al. Emergency Contraception. J Obstet Gynaecol Can 2015, 34(9):870–878

Indications

3. Dysmenorrhea (LNG 52mg)
   - Shown to help endometriosis and adenomyosis

4. Menorrhagia (LNG 52mg)
   - Decrease flow by 74-98%
   - Increase Hgb
   - 64-80% randomized to get LNG 52mg for heavy menstrual bleeding cancelled hysterectomy compared to 9-14% receiving other treatment*

Decreased risk of endometrial cancer

- Both LNG and copper

*Hurskainen R, Teperi J, Rissanen P, Aalto AM, Grenman S, Kivelä A, et al. Quality of life and cost-effectiveness of levonorgestrel-releasing intrauterine system versus hysterectomy for treatment of menorrhagia: a randomised trial. Lancet 2001;357:273e7.

Contraindications

- Pregnancy
- Current PID or purulent cervicitis
- Unevaluated abnormal vaginal bleeding
- Cervical or endometrial cancer
- Malignant GTN – active
- Current progestin receptor positive breast cancer for LNG
- Pelvic TB, Postpartum sepsis, Post-septic abortion
- Known distorted uterine cavity - bicornuate

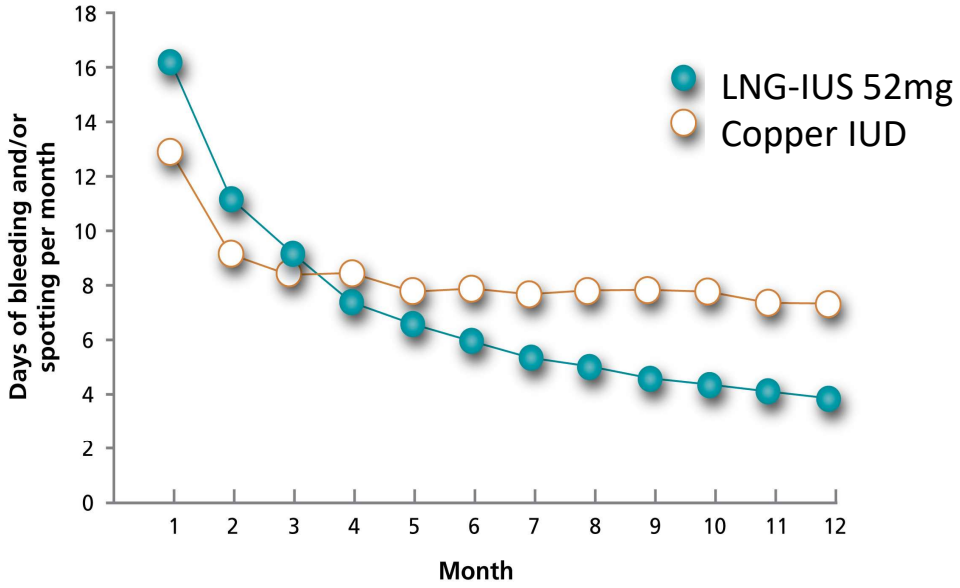
  Postpartum >48 hours to < 4 weeks

KEY TAKEAWAY

High STI risk is not a contraindication

Side Effects

- Bleeding

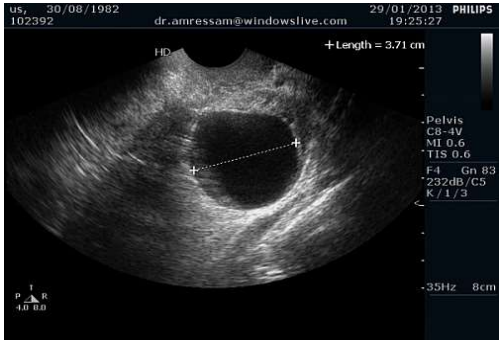


- Copper IUD – overall menstrual flow increase by up to 65%- ibuprofen
- LNG – IUS menstrual flow decreased 74% to 98%,

Andersson et al. Contraception 1994; 49(1): 56-72

Side Effects

- Pain
  - Copper IUD - dysmenorrhea increased in 20-50% of women
  - LNG – IUS - dysmenorrhea decreased with 5% still having dysmennorhea
- Hormonal Side Effects
  - LNG – 12% removal for hormonal side effects
  - Copper – 2% removal claiming hormonal side effects
- Functional Ovarian Cysts
  - Not a contraindication for insertion
  - Usually asymptomatic
  - Do not require further investigation or treatment



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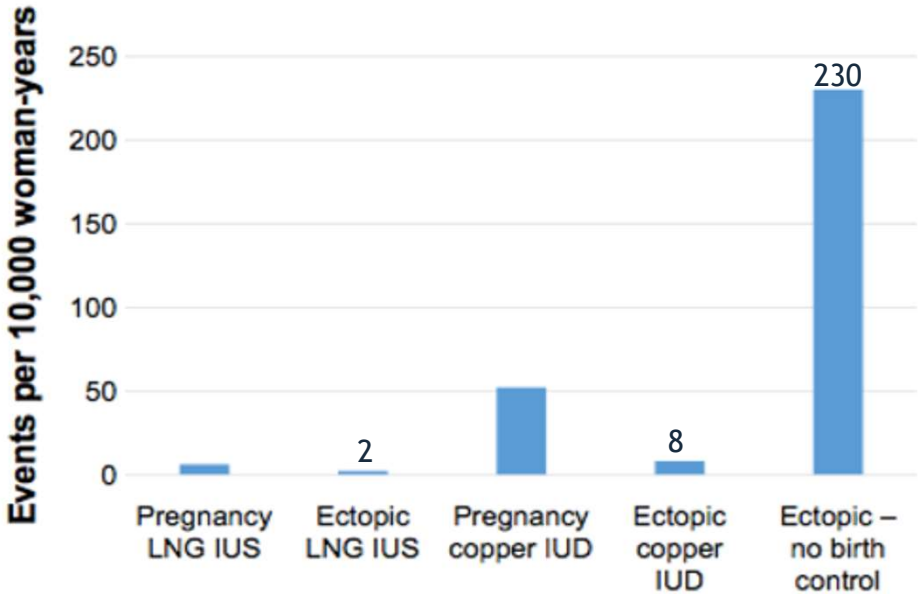
IUDs decrease the risk of having and ectopic pregnancy

ⓘ Start presenting to display the poll results on this slide.

Risks

- Pregnancy - Copper 6-8/1000, IUS 2/1000
  - Ectopic pregnancy with an intrauterine contraceptive (IUC) is rare, but when a pregnancy occurs with an IUC in situ, it is an ectopic pregnancy in 15% to 50% of the cases.
  - Higher proportion with LNG than copper



KEY TAKEAWAY

IUDs lower absolute risk of ectopic pregnancy

Costescu, Dustin. (2016). Levonorgestrel-releasing intrauterine systems for long-acting contraception: Current perspectives, safety, and patient counseling. International Journal of Women's Health. Volume 8. 589-598. 10.2147/IJWH.S99705.

Risks

- Uterine Perforation
  - 0.3-2.6/1000
  - Increases with inexperience of inserter, postpartum, breastfeeding
- Infection
  - Highest in first 21 days but absolute risk is low (0.54%)
  - No decrease in post-insertion infection with pre-screening
- Expulsion
  - 2-10% in first year, worst in 1st month
  - Risk factors: heavy menstrual bleeding, dysmenorrhea, atypical uterine shape, leiomyoma, previous expulsion

Initiation

- Which IUD should I use doctor? Copper, Kyleena or Mirena?

Copper IUD	LNG-IUS	
Cost less (~$90)	Cost more (~$400)	
No hormones/natural cycles	12% removed for hormone S/E	
More bleeding and pain	LNG - overall less bleeding and pain	
3, 5 or 10 (12) years	5 (7) years	
	Kyleena Least hormone	**Mirena Least period**
	Progesterone only – 1/3 dose of Mirena	Progesterone only
	Not indicated for dysmenorrhea	Indicated for dysmenorrhea
	Smaller	Larger

*Grimes DA, Lopez LM, Manion C, Schulz KF. Cochrane systematic reviews of IUD trials: lessons learned. Contraception 2007;75(6 Suppl):S55e9.

Initiation

History

- Medical history - any contraindications
- Obstetrical - recent delivery, PP infections, C/S
- Gyne - Ever had a vaginal exam, PAP UTD, known cervical or uterine surgery, fibroids
- Menstrual history - duration, pain, amount, contraceptive history - IUD experience, sexual history - recent sexual activity, risk of pregnancy

Counselling

- Side Effects - bleeding, pain, hormonal in first months, risks – failure rates, perforation, expulsion, infection
- When they can have sex
- Describe insertion process, cost, consent, follow up

Insertion Timing

- During menses
- Post partum - < 48 hours (higher continuation rate) or > 4 weeks
- Immediately post abortion

Troubleshooting by Insertion Step

Insertion Step	Consideration/Complication
Ahead of visit	If known difficult insertion or risk for difficult insertion consider intramenstrual timing, miso, pain meds
Bimanual Exam	Anxiety, very anteverted or retroverted, abnormality of uterus (fibroids)
Examine cervix	Poor visualization (obesity, cervical position), cervical abnormalities
PAP, STI, BV swabs	If purulent stop insertion
Apply tenaculum and gentle traction	Consider pain management, cervical anaesthesia, get a nice bite, axialize - don't forget to use it for traction
Sound	Tight os, retroverted, abnormal uterus, perforation (postpartum)
Insert	See above complications for sounding, sound goes in, IUD wont – bend
Cut 2-3 cm/tuck strings	Don't pull IUD out with dull scissors
Patient gets up slowly	Watch for vaso vagal reaction

Visualize and cleanse the cervix

- "No-touch" technique - any instrument that will pass through the cervix, including the IUC itself, does not touch any nonsterile surface.

- Cleansing the cervix is common practice, but insufficient evidence that this practice lessens the chance of infection

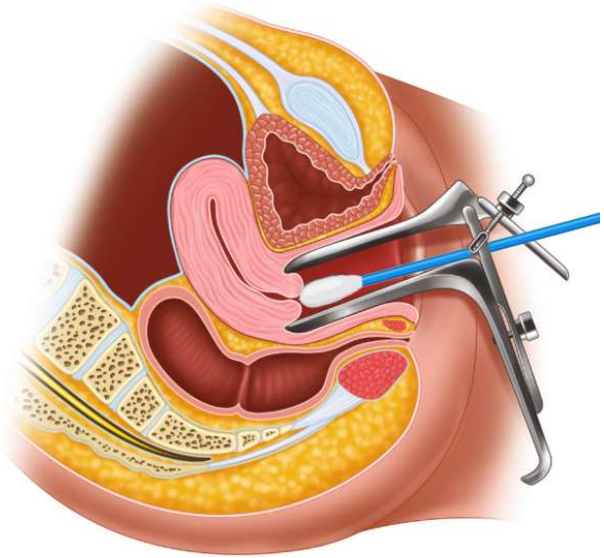


Image adapted from Acevedo R. (2020) Empathic Pelvic Examination. In: Heath C., Sulik S. (eds) Primary Care Procedures in Women's Health. Springer, Cham. Bluestone J et al. IUD guidelines for Family Planning Service Programs: A Problem-Solving Reference Manual. 3rd edition. Jhpiego; 2006. , Costescu D, Guilbert E. Module 3: The IUC Insertion Visit. *Intrauterine Contraception (IUC) Insertion Preceptorship Program.* Advancing Practice. 2015.; Caddy et al. Best Practices to Minimize Risk of Infection with Intrauterine Device Insertion J Obstet Gynecol Can 2014;36(3): 266-274, NAF Clinical Practice Guidelines 2014. Black et al. Canadian Contraception Consensus, J Obstet Gynaecol Can 2016;38(2):182-222

IUD Pain in the Media

Goldman

The trouble with IUDs (Part 1)

Play Episode

26:30

Share Episode

IUDs are an effective and popular form of birth control in Canada. But many women experience intense pain from the insertion that they weren't warned about. In this episode, women across the country share stories of unexpected pain, complications and emotional distress. In Part 2, what some gynecologists are doing to make the experience of getting IUDs more comfortable

Aired: June 10, 2022

White Coat, Black Art

Women have sucked up the pain of birth control devices for decades, but do they have to?

People on TikTok Are Talking About How Excruciating IUD Insertion Can Be

TikTok trends: Does IUD insertion hurt?

March 16, 2022
Lindsey Carr

· Feb 16 •••

Uterus-havers: did you know you can **demand local** anesthesia for gyno procedures? Not request. **Demand**.

Oct 14 •••

Baffled as to why offering different forms of **pain** relief for **IUD** insertion isn't standard. Also stop referring to it as a "sharp pinch". No pinch in the history of pinches has ever felt like that.

In Office Pain Management Strategies

Studies are difficult to interpret, have conflicting results, and have not clearly demonstrated an effective strategy to mitigate the discomfort.

Strategy	Detail	Data
Non-medicinal	Skill/experience of provider, verbicaine, comfort items, instrument choices, ultrasound/bimanual	Very limited 2020 Nguyen, Laura, et al.
Oral Medication	Naproxen may help post insertion pain Ibuprofen likely no help Miso – may increase pain not routinely recommended Opiods – Tramadol may help, codeine ?, oxycodone ? Anxiotytics - ?	2009 Allen, Rebecca H., et al. 2012 Karabayirli, Safinaz, et al. 2016 Ngo, L., et al 2015 Bednarek, Paula H., et al. 2014 Espey, Eve, et al
Vaginal Anaesthesia	Lidocaine 2% gel (vaginal or intracervical) - not effective when compared with placebo Lidocaine spray - conflicting	2012 Maguire, Karla, et al. 2010 Mohammad-Alizadeh-Charandabi, S., et al. 2017 Karasu, Yetkin, et al.
Cervical – intra/para Block	Intrauterine/cervical instillation – not effective Paracervical/ intracervical block – some evidence to support	2014 Pergialiotis, Vasileios, et al. 2020 De Nadai, Mariane N., et al.

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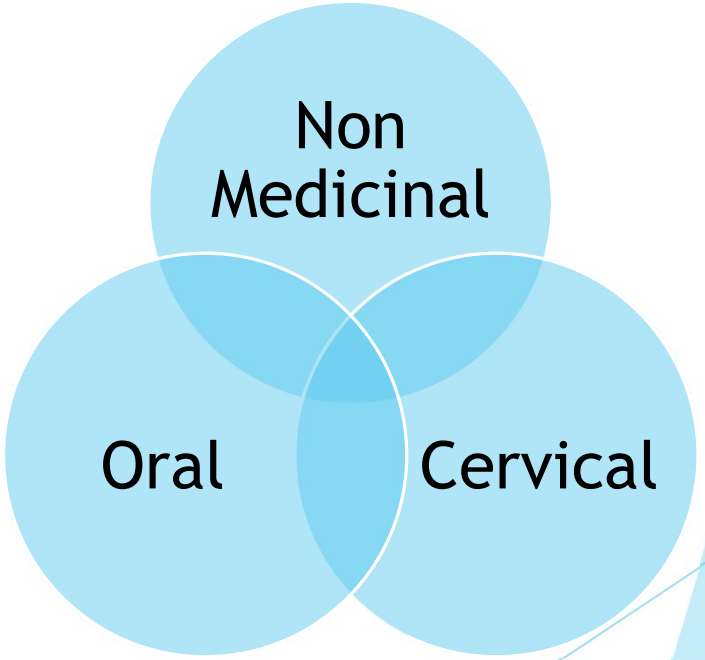
Routine misoprostol is recommended to ease IUD insertion pain

ⓘ Start presenting to display the poll results on this slide.

Pain Management

> Use an individualized multimodal approach

- Consider a combination of:
  - Non-medicinal –gentle & efficient technique, verbicaine, lighting, music
  - Oral – Naproxen, tramadol, ?anxiolytics,
  - Cervical anaesthesia
- Misoprostol
  - Higher pain scores, bleeding, and fever.
  - Misoprostol PV / PO 60-90 min - select cases

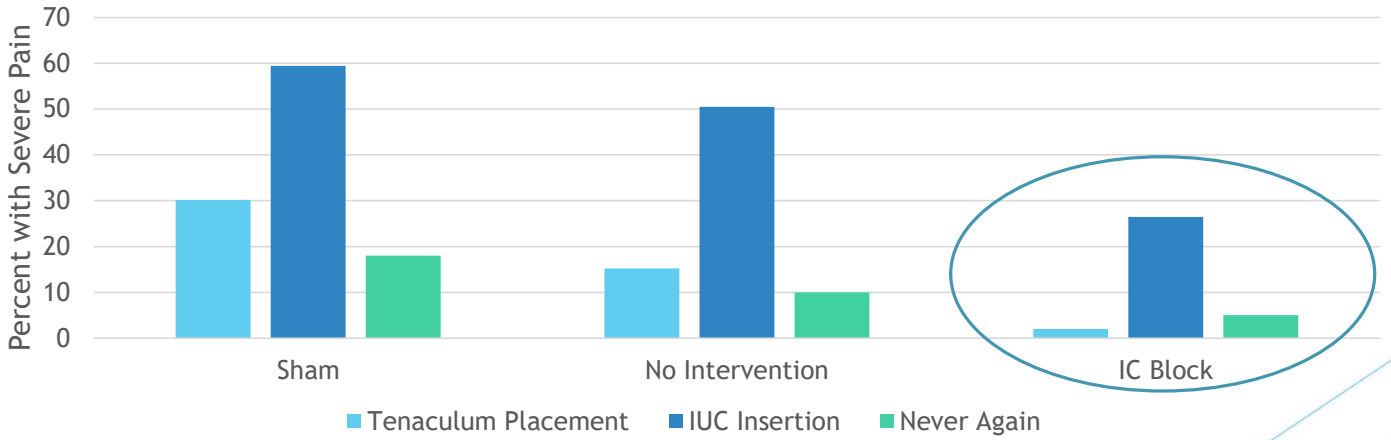


"Routine use of misoprostol for IUC insertions should be discouraged"

Edelman AB, Schaefer E, Olson A, Van Houten L, Bednarek P, Leclair C, et al. Effects of prophylactic misoprostol administration prior to intrauterine device insertion in nulliparous women. Contraception 2011;84:234e9.

Intracervical Anaesthesia

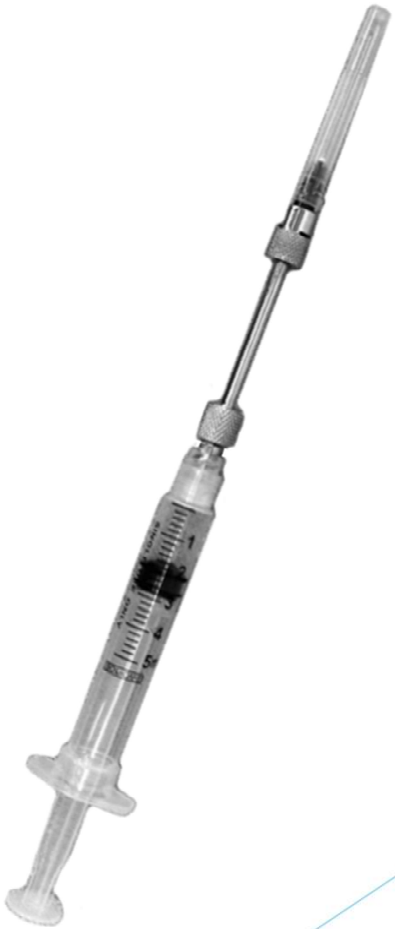
- Randomized, double blind controlled trial at LNG 52mg insertion
- Nullips randomized to:
  - Intracervical block with 3.6 mL 2% lidocaine with 27 gauge needle 4 points
  - Sham injection
  - No intervention



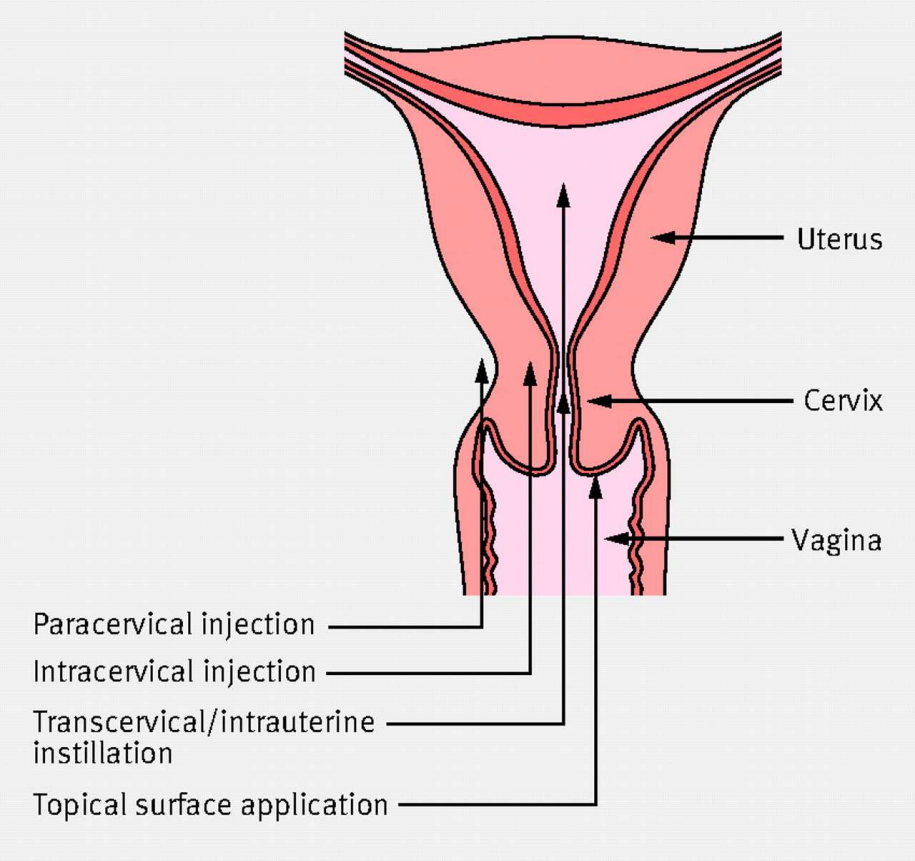
De Nadai, Mariane N., et al. "Intracervical block for levonorgestrel-releasing intrauterine system placement among nulligravid women: a randomized double-blind controlled trial." *American Journal of Obstetrics and Gynecology* 222.3 (2020): 245-e1.

Cervical anaesthesia

- Why bother?
  - Evidence of decrease pain scores
  - Fewer vagal reactions
  - More ability to troubleshoot
- Tips:
  - Needle extender
  - Inject slowly
  - Bleeding and pinch
  - Use 2-5cc of 0.5-2% xylocaine
  - Consider buffer with HCO3
    - 5mL HC03 per 50ml bottle xylocaine
  - Inject with 25 gauge 1½ inch needle

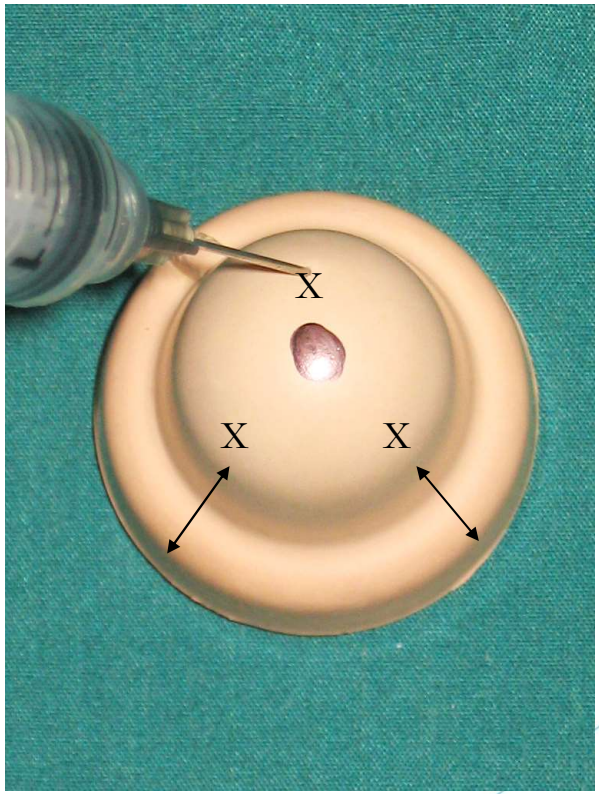


Cervical Anaesthesia options..

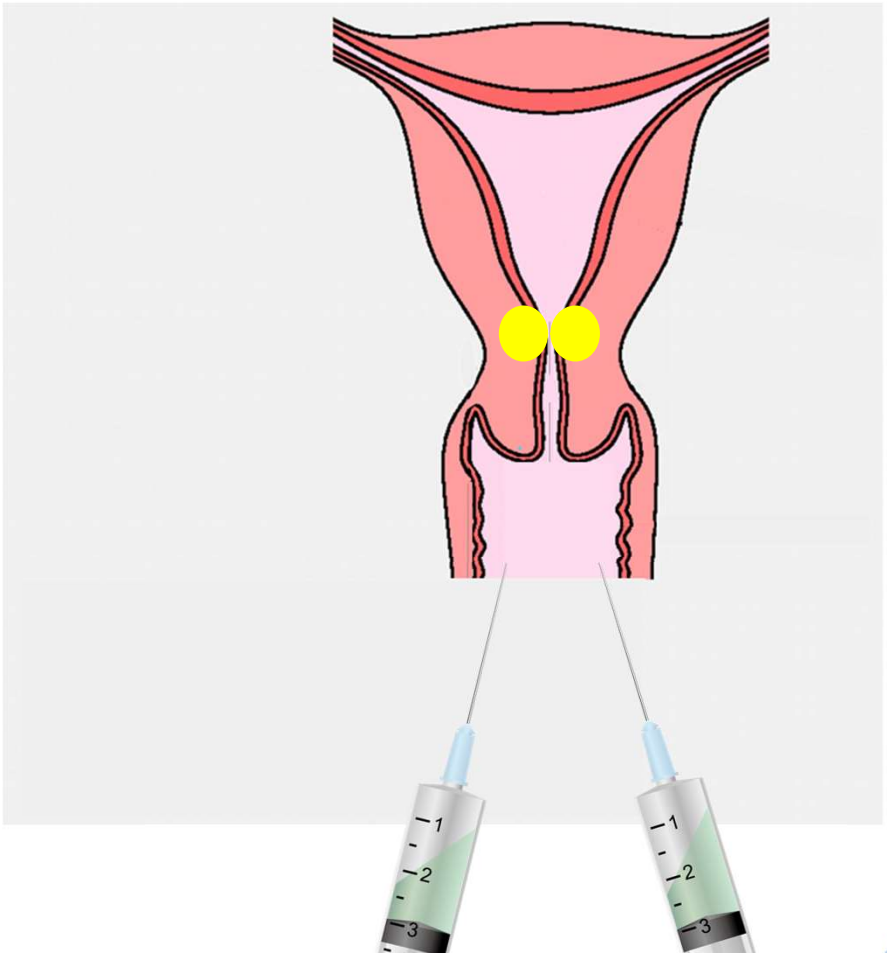


Traditional Cervical anaesthesia

- Intracervical or Paracervical option
- 1-6 cc into cervix for tenaculum site
- 2-7 cc at each 5 and 7 o'clock intracervical or paracervical
- Full needle depth



Cervical Anaesthesia Our Clinical Experience



Apply the tenaculum to the cervix

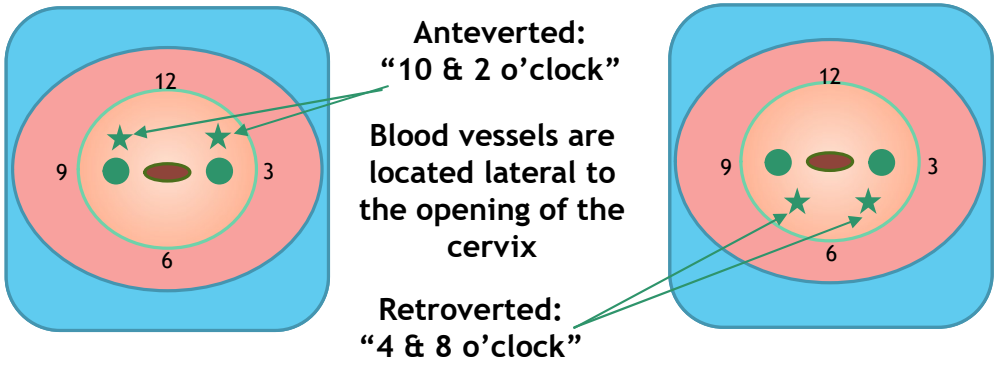
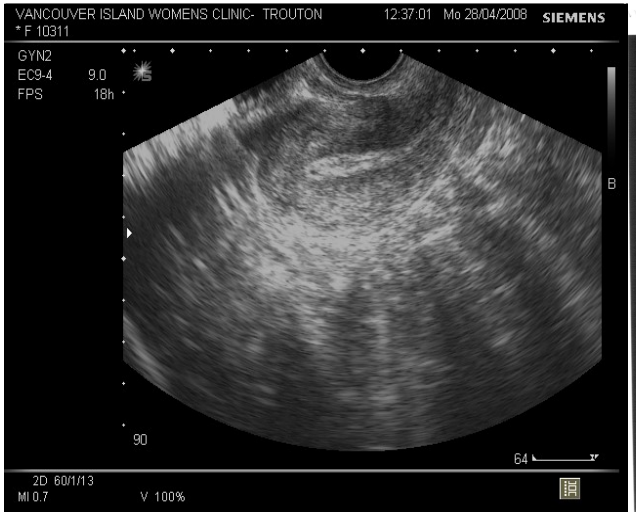
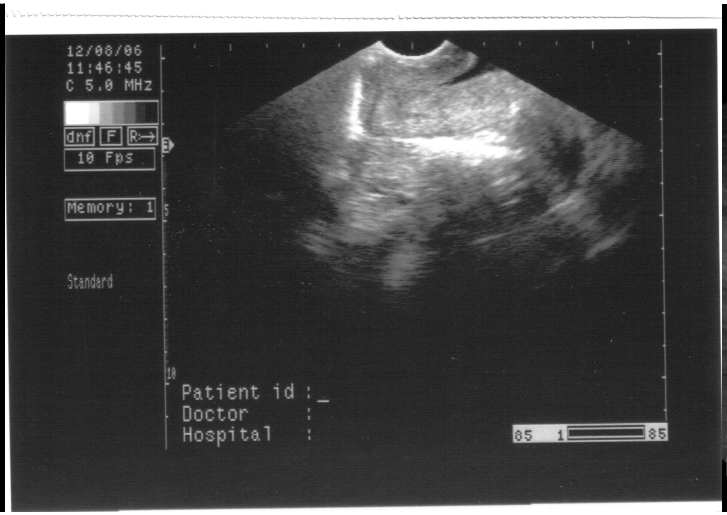
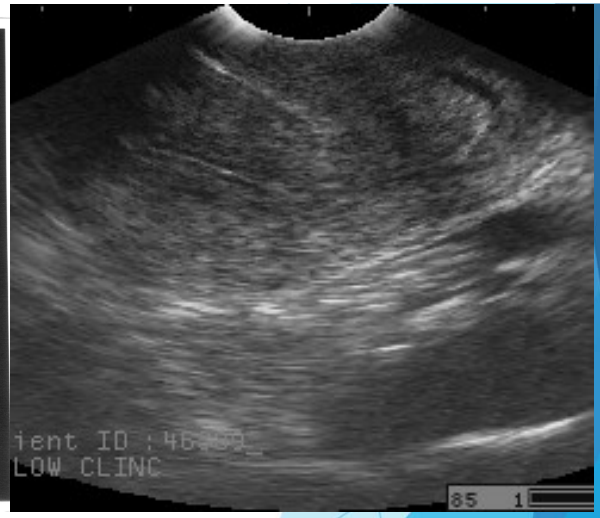
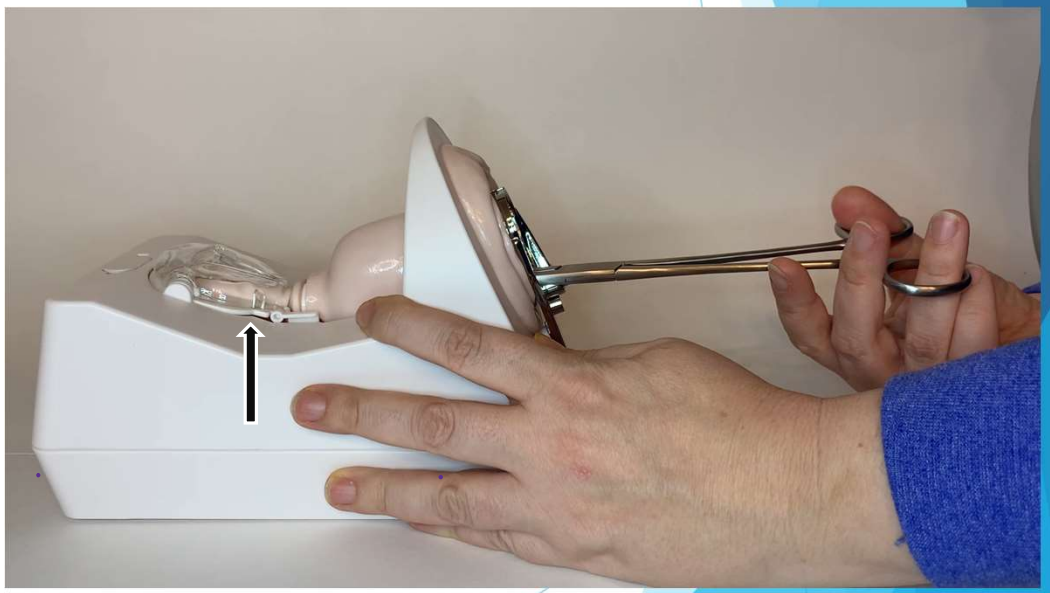


Image adapted from: Jain S et al. *J Hum Reprod Sci*. 2016;9(4):230-235.
Bluestone J et al. IUD guidelines for Family Planning Service Programs: A Problem-Solving Reference Manual. 3rd edition. Jhpiego; 2006.; Costescu D, Guilbert E. Module 3: The IUC Insertion Visit. *Intrauterine Contraception (IUC) Insertion Preceptorship Program*. Advancing Practice. 2015.; Mirena® Product Monograph, Bayer Inc. November 24, 2020.; Kyleena® Product Monograph, Bayer Inc. January 11, 2021

Anteverted uterus	Anteverted retroflexed	Retroverted anteflexed
		

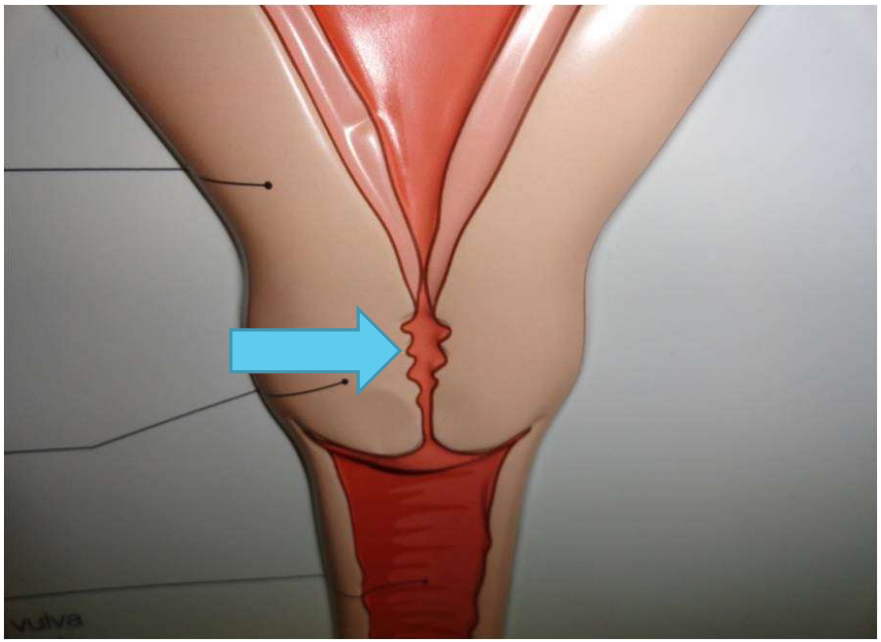
Sounding

- Remember uterine position
- Use tenaculum to axialize uterus – Traction!
- Slide in sound to fundus – 5cm or less ?
  You're unlikely though os



Tight Os

- Twist and wiggle the curved sound and IUD to get around the ridges.



Sounding

- Trouble shooting for sounding..
  - Cervical anaesthesia
  - Change position of tenaculum
  - Short speculum – easier to axialize
  - Wiggle and rotate sound
  - Os finders, dilators
  - Sound in but IUD wont go in? Gently bend inserter - sterile
- Still no luck?
  - Time insertion intra-menstrually
  - Consider misoprostol

Os finders - reusable

Follow Up (optional)

- 4-12 weeks post-insertion
  - Bleeding patterns
  - Exclusion of infection and expulsion
  - Patient /partner satisfaction
  - Clinical examination, string check
  - Reinforce condom use for protection against STIs and HIV

When to Follow-up Again

Pain or unexpected bleeding

- Malposition
- Pregnancy - exclude ectopic
  - Remove IUD if you can see strings regardless of choice
  - Increased risk to pregnancy regardless but decreased risk by half if removed sooner
- Infection
  - Abdominal pain, fever, or unusual vaginal discharge
  - Treat with IUD in place
  - PID – if no improvement in 48-72 hours then consider removal
- Wrong IUD for them

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Final Question: If an ultrasound report says that an IUD is "malpositioned" it must always be removed and replaced.

ⓘ Start presenting to display the poll results on this slide.

Malposition – Should I Intervene?

- Pain and any ultrasound finding of malposition
  - remove and replace

- No pain and ultrasound finding of malposition
  - Partially expelled (in cervix) – remove and replace
  - In lower uterine segment
    - LNG still effective leave it (data shows still effective in cervix!)
    - No clear data for Copper IUD – counsel
    - Many will spontaneously re-position fundally
  - Arm in myometrium or rotated – expectant management
  - Partial or Complete perforation - hysteroscopic or laparoscopic removal
    - If not found on ultrasound don't forget Xray

KEY TAKEAWAY
Avoid unnecessary removals - Higher rates of pregnancy with removal than expectant management

Braaten K, Goldberg A. Malpositioned IUDs: When you should intervene (and when you should not) OBG Manag. 2012 August;24(8):38-46

Conclusions

- LARCs are highly effective
- After contraceptive counselling most patients choose LARC
- Continuation rates are higher than all other methods
- Canadians rate of use of LARCs remains low

Resources

- SOGC IUC Preceptorship Program (live training with patients): cme@sogc.com
- IUD Clinics: raice.ca
- Patient resources:
  - sexandu.ca/contraception/
  - itsaplan.ca


Thank
You
Vinaka
köszönöm
Kiitos
Maake
Asante
Shukria
Dhanyavadagalu
감사합니다
Kam Sah Hammida
Manana
Dankon
Matondo
Dank Je
Dankscheen
спасибо
Mauruuru
Biyan
Terima Kasih
Taiku
Blagodaram
Ngiyabonga
Dziekuje
Chokrane
Diolch i Chi
Tack
Juspaxar
Arigato
Grazie
Gracias
Mochchakkeram
நன்றி
Bedankt
धन्यवाद
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Gratias Tibi
Děkuji
Nirringrazzjak
Kia Ora
Khun
Obrigado
Suksama
Hvala
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Rahmat
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