Contraception for Adolescents

Dr. Melissa Mirosh, MD FRCSC Obs/Gyne

Department of Obstetrics and Gynecology

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Objectives

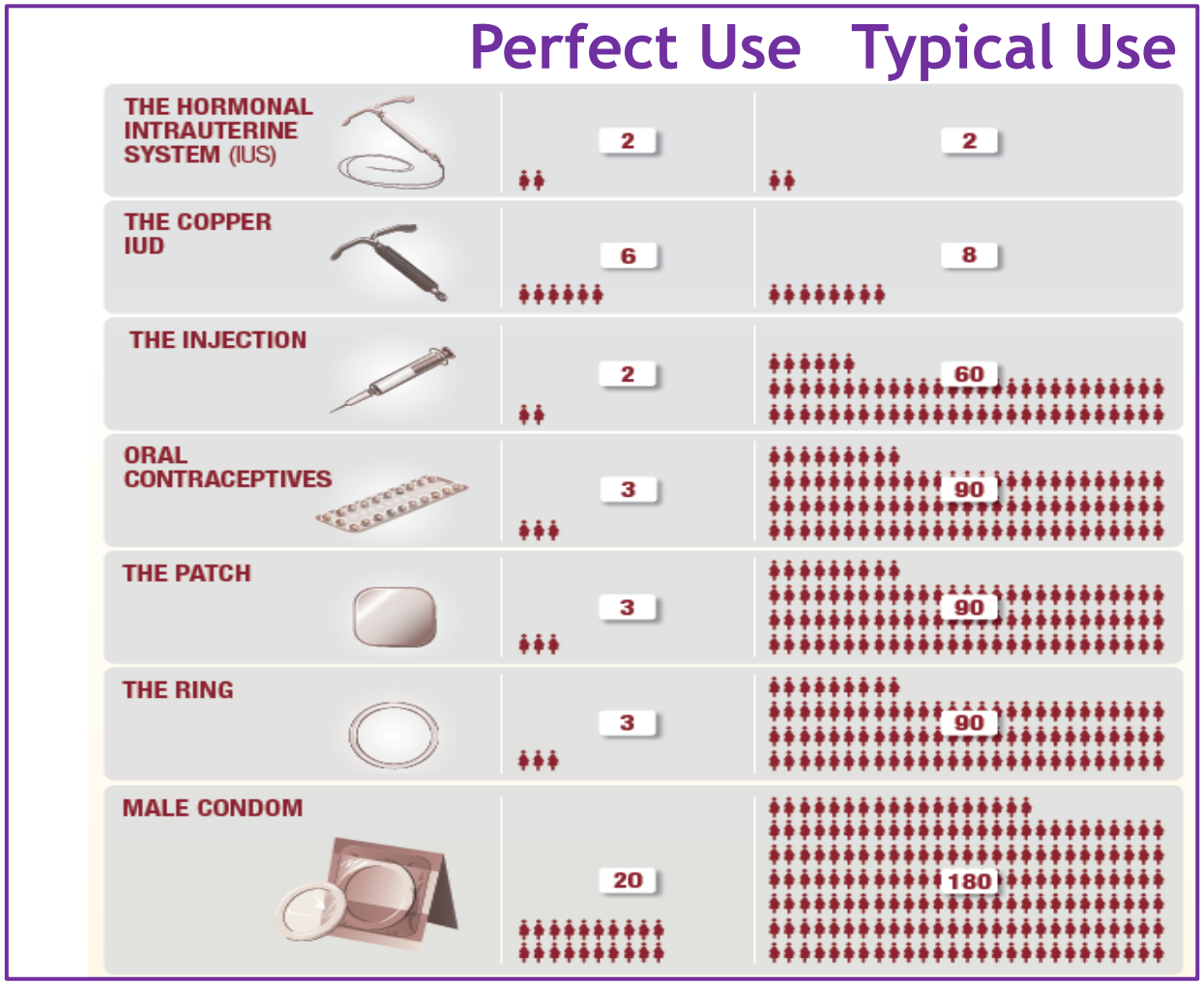
- After this session, participants will be able to:

- Discuss contraceptive choices for challenging cases
- Identify risk factors for contraceptive methods in challenging situations
- Appreciate non-contraceptive benefits offered by appropriate contraceptive choices

Outline

- Best contraceptive choices for teens
- Review of Emergency contraception

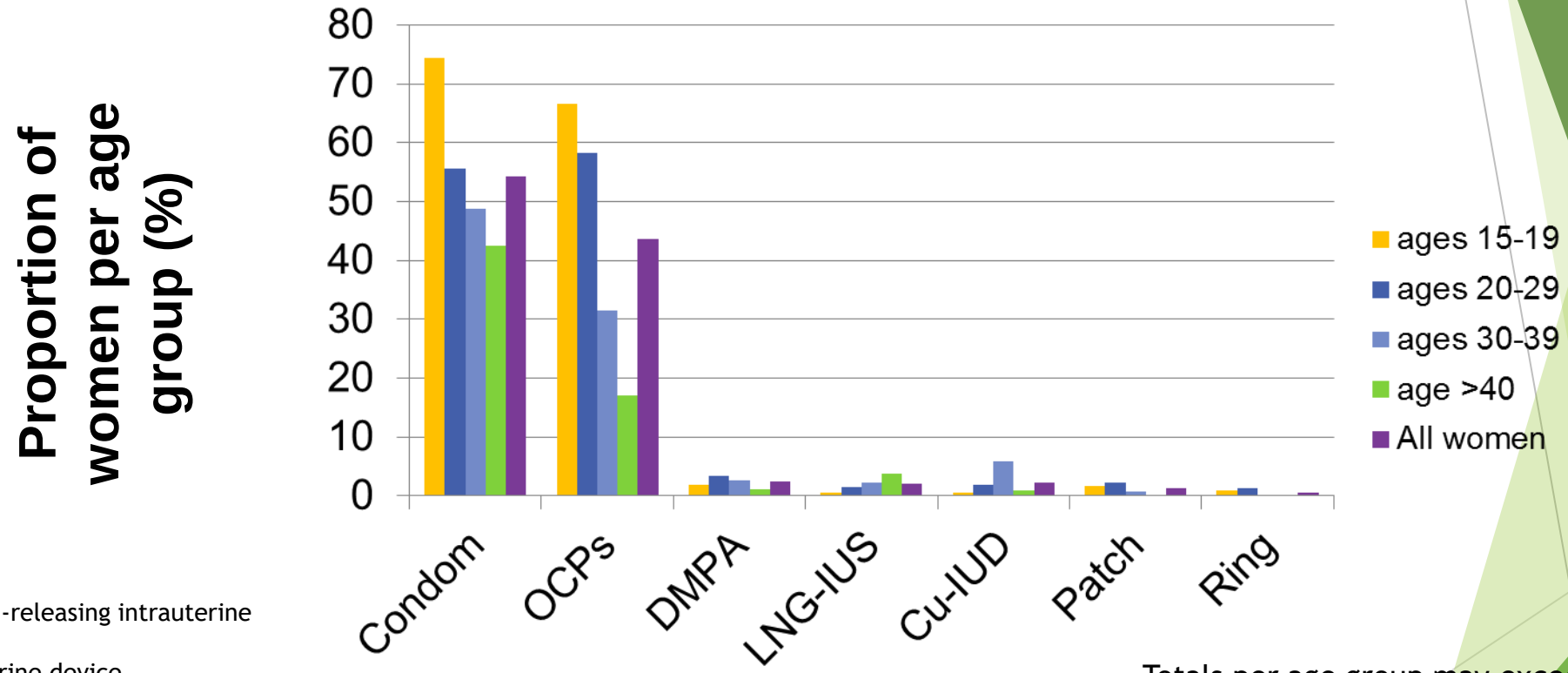
Unintended pregnancies with various contraceptive methods per 1,000 women during first year of use#



#Not head-to-head comparison of selected contraceptive methods

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

Most commonly used contraceptive methods by Canadian women by age



LNG-IUS: Levonorgestrel-releasing intrauterine system
Cu IUD: Copper intrauterine device
OCP: Oral contraceptive pill
DMPA: Depot medroxyprogesterone

N=2341
Totals per age group may exceed 100% as women were allowed to choose more than one method
Data on sterilization, non-hormonal methods not shown.

Black et al. J Obstet Gynecol 2009; 31(7): 627-640

Adolescent Contraceptive Choices:

- Shorter-acting methods
  - Oral contraceptive pill
  - Transdermal patch
  - Vaginal ring
- Long-acting reversible contraceptives “LARC”:
  - Intrauterine devices
  - Single rod implant when available
- Barrier methods (= male condoms) as dual protection
- Emergency contraception in case of contraceptive failure

Compliance

- Methods like the OCP and condoms require consistent action by the patient, making compliance more challenging.
  - Larger difference between “perfect” and “typical” efficacy
- Vaginal ring and patch may improve compliance
  - Action required by woman less often
- Long acting methods like DMPA, IUS and implants
  - Little difference between typical and perfect use efficacy
  - Depo a little less effective with typical use
    - need to come in for injections
  - IUDs are now considered first line for adolescents

Influence of others

- Adolescents are influenced a great deal by their friends and word of mouth (and social media!)
  - Also still influenced by family
- May need to dispel myths
- May not be able to eliminate a set belief against a method
- Can use this for buy-in if friends have had success with a method

Side effects

- Adolescents tend to be less tolerant of side effects
  - More likely to stop a method based on perceived or experienced side effects
- Worry about ineffectiveness or “worst-case scenario” such as cancer
- Providing anticipatory guidance can help
- Encouraging them to continue as should improve
  - E.g. breakthrough bleeding, nausea, headaches etc.
- Short time until f/u appt
  - We see adolescents in ~6 weeks

IUDs in Teens; PID risk

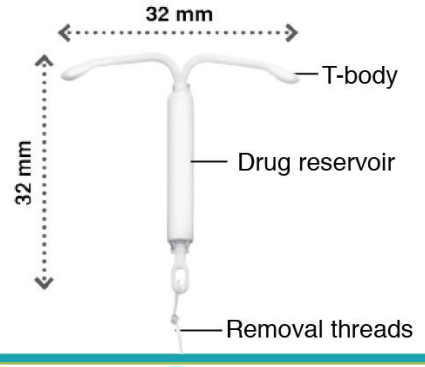
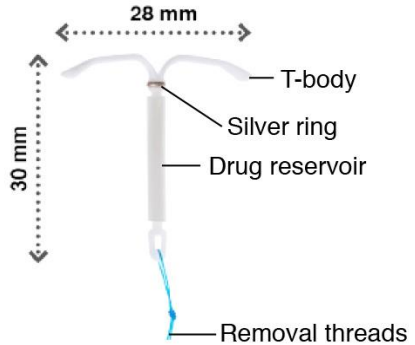
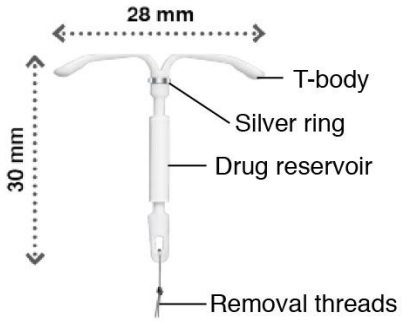
- Slight increase in the first month, related to insertion, but the absolute risk is low. After the first month, PID risk is **related to STI exposure not the IUD**
- Screen for gonorrhea/chlamydia at the time of insertion; risk of PID from insertion not lower with pre-screening
- Even if inadvertently inserted with chlamydia, most likely will not develop PID
- If chlamydia/gonorrhea cervicitis, treat and leave IUD in
- If she develops PID, treat and leave the IUD in
  - Could consider removal if not improving with adequate tx

IUC in teens

- **CHOICE project – 10,000 women given free choice of contraception (2000 teens)**
  - Among participants who used pills, patch, or ring, those who were less than 21 years of age had a risk of unintended pregnancy that was almost twice as high as the risk among older participants, and LARC users had a 20x lower failure rate.

- **ACOG**: LARC methods are safe, effective and appropriate for teens.
- **SOGC**: Nulliparous women and adolescents who desire a highly effective method of contraception should be offered an IUC.
- **WHO**: Age alone does not constitute a medical reason for denying any method to adolescents.
- **American Academy of Pediatrics**: IUCs are now known to be safe for nulliparous adolescents

The IUS Family

	Mirena	Kyleena	Jaydess
	Mirena® (levonorgestrel-releasing intrauterine system) 52 mg 	Kyleena™ (levonorgestrel-releasing intrauterine system) 19.5 mg 	Skyla® (levonorgestrel-releasing intrauterine system) 13.5 mg 
Size	**32 mm wide 32 mm long**	**28 mm wide 30 mm long**	**28 mm wide 30 mm long**
Tube diameter	4.4 mm	3.8 mm	3.8 mm
Maximum duration of use	5 years	5 years	3 years

Jaydess® Product Monograph, November 21,2014
Mirena® Product Monograph, October 9, 2014
Kyleena® Product Monograph, December 9, 2016

Depo Medroxyprogesterone Acetate in Teens - Benefits

- 150 mg IM every 12 weeks
- Easy to take – not daily compliance
- Very effective contraception
- Amenorrhea in 30-40% of patients
  - But irregular bleeding initially
- Beneficial effect on pelvic pain and endometriosis
- For patients with a seizure history, starting DMPA often associated with a decreased rate of seizures

Depo-medroxyprogesterone Acetate in Teens - Downsides

- Potential weight gain
- Irregular menstrual bleeding
- Loss of bone density with DMPA
  - Due to relative hypoestrogenism
  - Within 1 SD of normal even after 5 years of use
  - Reversible on discontinuation
  - Same BMD loss as seen with pregnancy or breastfeeding, which reverses

DMPA and Bone Mineral Density

- Hip and spine BMD decreases by 0.5-3.5% after 1 year
  - 5.7-7.5% after 2 years of use
- BMD loss never been shown to be below 1 std deviation of normal level even after 5 yrs
- Not associated with an increased risk of fracture
- Reversible after 2 yrs after DMPA discontinuation
- Questions remain with respect to DMPA use and risk of fracture when reversibility incomplete or when DMPA used close to menopause

Canadian Contraception Consensus (part 3 of 4): Chapter 8- Progestin only Contraception

The ideal teen contraception??

WHO classification of risk from contraceptive use

WHO 1	**A**lways useable	Risk no higher than the general population
WHO 2	**B**roadly useable	Small increase in risk; Advantages generally outweigh risks
WHO 3	**C**aution in use	Risks usually outweigh advantages
		except: patient rejects alternatives
		risk of pregnancy high, and other methods less effective
WHO 4	**D**o not use	Method contraindicated

Medical Eligibility Criteria for contraceptive use

1. • **No restriction** for the use of the contraceptive method for a woman with that condition
2. • **Advantages** of using the method generally **outweigh** the theoretical or proven **risks**
3. • Theoretical or proven **risks** of the method usually **outweigh** the **advantages** – not usually recommended unless more appropriate methods are not available or unacceptable
4. • **Unacceptable** health risk if the contraceptive method is used by a woman with that condition

CDC MEC, 2016

Obesity

- What can we use – routine contraception, transdermals, LARCS?
- Anything we should stay away from?

Obesity : Take-home message

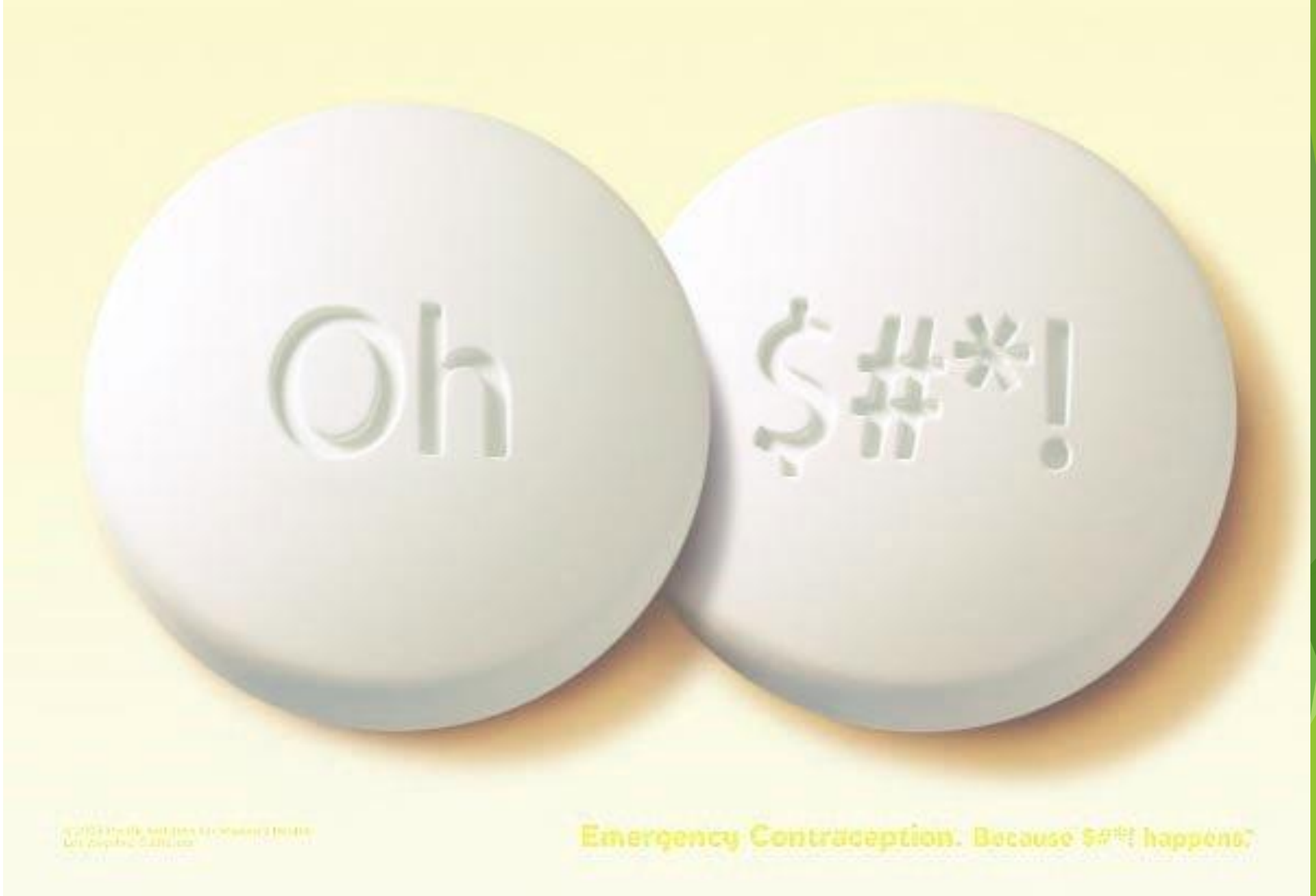
Summary statement

- The majority of qualified studies do not indicate decreased combined oral contraceptive pill efficacy in obese women;
- However, a small increase in contraceptive failure in women with a body mass index > 30 cannot be excluded (II-2).

Canadian Contraception Consensus Part 4 of 4
Chapter 9

Black A et al, *JOGC*, 2017

Emergency Contraception


Oh
$#*!
Emergency Contraception. Because $#*! happens.

EC: Yuzpe method

Dose: 100mcg ethinyl estradiol + 500mg levonorgestrel

- dose **twice**, **12** hrs apart

Table 5. Combined oral contraceptive pills for use as EC

	Pills per dose	Ethinyl estradiol (mcg/dose)	Levonorgestrel (mcg/dose)
Alesse	5	100	500
Triquilar	4 yellow	120	500
Min-Ovral	4	120	600

up to **3 days** post UPI

SOGC Contraception Consensus Chapter 3: Emergency Contraception (2015)

ONT #ONCME sogc.org

EC: levonorgestrel *alone*

Dose: 1500mg
Levonorgestrel x1

- Plan B
- Norlevo
- Option 2
- Next Choice
- *Contingency (Mylan)

up to **5 days** post UPI

ONT #ONCME
sogc.org

EC: ulipristal acetate

Dose: 30mg ulipristal acetate x1

ella

Put your future in your hands.

up to **5 days** post UPI

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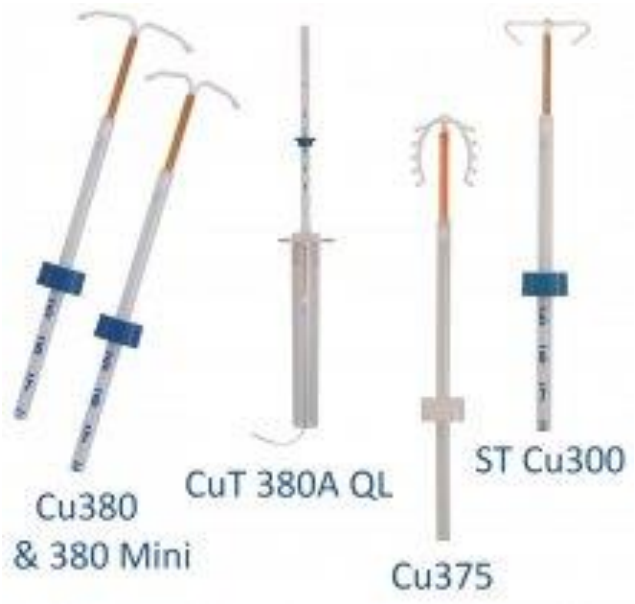
sogc.org

EC: copper IUD

MOST EFFECTIVE method of EC



- Liberte
- Mona Lisa
- Flexi-T

up to **7 days** post UPI

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EC: weight

THE SOCIETY OF OBSTETRICIANS AND GYNAECOLOGISTS OF CANADA
LA SOCIÉTÉ DES OBSTÉTRICIENS ET GYNÉCOLOGUES DU CANADA
780 promenade Echo Drive, Ottawa, Ontario K1S 5R7
Tel/Tél.: 1-800-561-2416 or/ou (613) 730-4192 Fax/Téléc.: (613) 730-4314 www.sogc.org

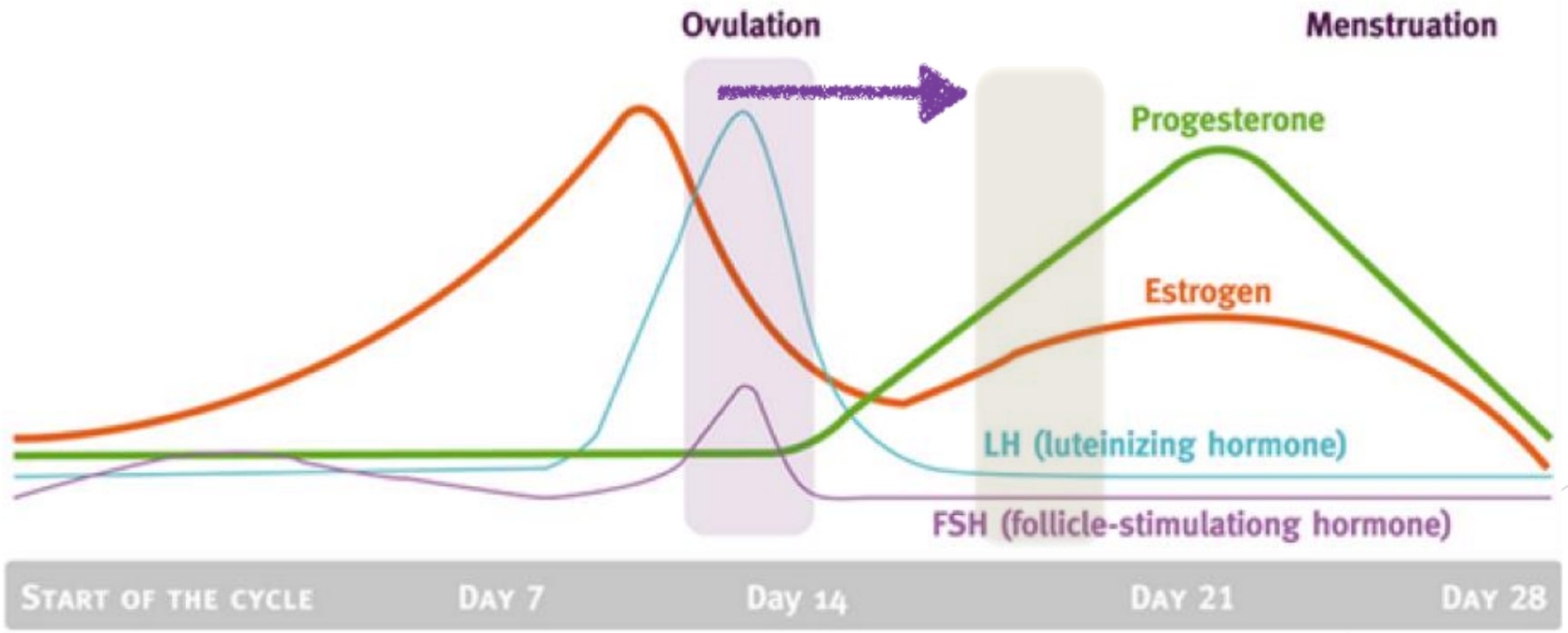
2 May 2014

POSITION STATEMENT

Women requesting emergency contraception should be advised that scientific evidence shows that for any weight category, insertion of a copper intrauterine device for emergency contraception is more effective than any emergency contraceptive pill. According to a 2011 study, levonorgestrel-only emergency contraception may be less effective in women with a body mass index of 25 to 29 and ineffective in women with a body mass index of 30 and over. This is the basis for the recent Health Canada recommendation to add new warnings to product packages advising that these pills are less effective in women weighing 165 to 176 pounds (75-80 kg) and are not effective in women over 176 pounds (80 kg). However, further research is needed to confirm these findings. Until further evidence is available, women with a body mass index of 30 and over who do not have access to or do not want a Copper intrauterine device for emergency contraception should not be discouraged from using levonorgestrel-only emergency contraception, since it may still provide some benefit.

ONT #ONCME
sogc.org

EC: resumption of menses



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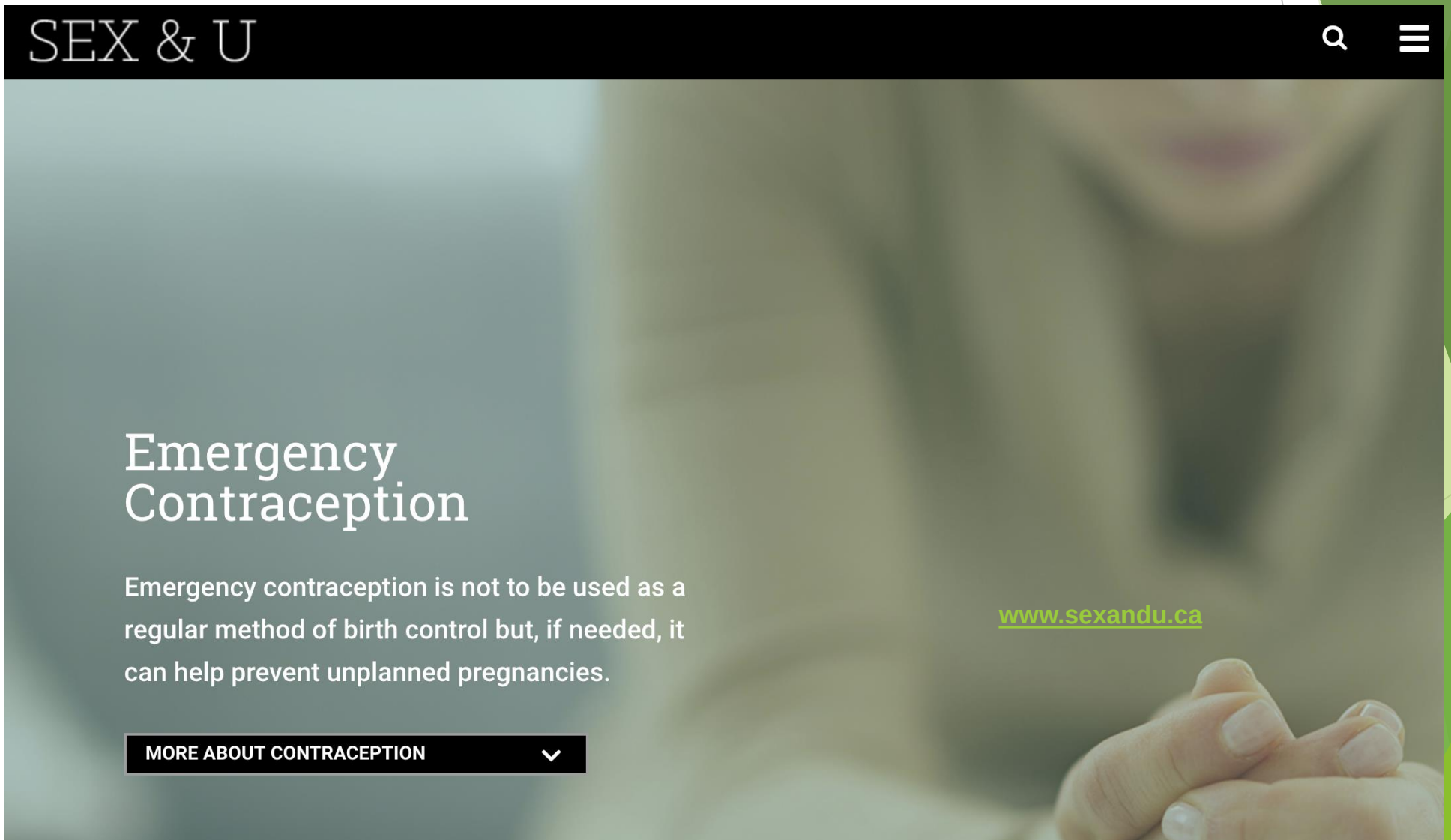
EC: resources



Extra thoughts

- Contraception and PCOS
- Menstrual suppression