

## PedsCases Podcast Scripts

This is a text version of a podcast from PedsCases.com on “**Contraceptive Care in Canadian Youth.**” These podcasts are designed to give medical students an overview of key topics in pediatrics. The audio versions are accessible on iTunes or at [www.peds-cases.com/podcasts](http://www.peds-cases.com/podcasts).

### **Contraceptive Care in Canadian Youth**

Developed by Vandana Rawal and Dr. Giuseppina Di Meglio for PedsCases.com.  
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#### **Introduction:**

Hello, my name is Vandana Rawal and I am a second-year Paediatrics Resident at the Hospital for Sick Children and the University of Toronto. This podcast was made in conjunction with PedsCases and the Canadian Paediatric Society (CPS). We will summarize the recently published 2018 CPS Guideline regarding Contraceptive Care for Canadian Youth. This podcast was developed with Dr. Giuseppina Di Meglio, Associate Professor of Pediatrics in the Division of Adolescent Medicine at McGill University in Montreal, Canada. She is the lead author of the CPS statement that we will be reviewing today. For additional information and to view the complete CPS Statement, please visit [www.cps.ca](http://www.cps.ca). The script for this podcast can be viewed at [www.peds-cases.com](http://www.peds-cases.com).

#### **Clinical Case:**

A 16-year-old girl, Anna, presents to your office with a complaint of painful menstrual cramps. She is accompanied by her mother, who says that she has heard that the oral contraceptive pill can be helpful for painful menstruation. Anna and her mother would like to obtain more information about "the pill."

As this is your first-time meeting Anna, you complete a general assessment with Anna and her mother present. You know that if Anna has access to confidential care, to which she is legally entitled, she may express concerns that she might not be comfortable discussing with her mother present. You therefore inform Anna's mother that you will be spending part of the assessment with Anna alone, and explain the principle of confidentiality, and its limits, to both Anna and her mother.

Once her mother is no longer present, you obtain a complete sexual history from Anna. She tells you that she has a boyfriend whom she has been seeing for 1 month. She is thinking about having sex with him, but has not yet done so. She has had one previous sexual partner 6 months ago, with whom she used condoms consistently. She has since had a pregnancy test and STI testing, both of which were negative. She mentions that she is also interested in the pill for contraceptive reasons, and asks you if it is a good option for her.

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How should you respond to Anna?

Keep her question in mind, and we will come back to it.

**Background:**

Anna's case is a common one. By age 17, over 50% of Canadian youth are sexually active. Without contraception 94 out of every 100 young women having sex over the course of one year will become pregnant. An unplanned pregnancy at this age can have a negative impact for the youth, her family, her community, and the health care system. ALL health care practitioners should be broaching sexual health with their adolescent patients. They should discuss the prevention of pregnancy and sexually transmitted infections, but also fertility, particularly in youth who have chronic or acute medical conditions that may affect their ability to reproduce, or who take medication that is teratogenic.

While all youth should have access to confidential sexual and reproductive health care, it can be helpful to have their parents involved in this discussion, if the patient is comfortable with that option.

**Contraceptive Options:**

Let us now discuss what contraceptive options we can offer to Canadian youth like Anna. Data from the Association of Reproductive Health Professionals shows that, the more "user dependent," a method, the more likely it is to fail.

We can therefore divide the different contraceptive options into three categories or tiers, with the first tier having the lowest failure rate, and the third tier having the highest failure rate.

The first tier consists of the long acting reversible contraceptives, which we will refer to as LARCs. The copper IUD, and hormone releasing intrauterine systems (called IUSs) both fall into this category. A third LARC, the subdermal progestin-releasing implant, also exists, but is not currently available in Canada.

The IUD and IUS require insertion once, and can then act continuously over several years, without any further patient intervention. They therefore have the highest effectiveness, with a less than 1% failure rate with typical use. In the past, IUDs were rarely used in youth, for fear of affecting long-term fertility. However, this concern has been shown to be unfounded. Given their unparalleled effectiveness, IUDs and IUSs should be the 1st choice method of contraception for youth.

The second tier consists of short-acting hormonal contraceptives. These methods have a failure rate of 6-9%, and are therefore less effective than LARCs. These options include the combined oral contraceptive, and the progestin-only pill, both of which need to be taken daily. Hormonal options also include the transdermal patch, which is applied

every week, and the vaginal ring which is inserted once a month. A final option, depot-medroxyprogesterone acetate (DMPA), which is an injectable progestin, is injected every 3 months. Each of the second-tier methods involves consistent patient use.

Third-tier contraceptives are used at the time of intercourse. These have the highest failure rate, because they rely on your patient having the motivation to use them in the moment, and they require some technical skill. These methods include the male and female condoms, diaphragm, cap, sponge, spermicide, withdrawal and fertility awareness.

Let your adolescent patient know that using any contraception, even if it is third tier, is better than using no method at all. You should also always encourage condom use with all forms of contraception, as it is the only method which reduces the risk for sexually transmitted infections. Finally, all youth who are sexually active should know about emergency contraception. However, this should be considered a back-up and not as primary contraception.

Now let's revisit our case. Given their superior effectiveness with typical use, LARCs are the first line contraception to be recommended. Anna reported that she had dysmenorrhea, so a copper IUD – which does not improve dysmenorrhea, and may indeed worsen it – is not likely to be an attractive option. On the other hand, an IUS will decrease bleeding and decrease dysmenorrhea, so you suggest using one to Anna. However, Anna is uncomfortable with this option, and states that she doesn't like the idea of having something inside her.

You emphasize that it is important for Anna to feel comfortable with whichever option she chooses. You present the second-tier methods, hormonal contraceptives, and she states she wants to hear more about these. You also ask her if she would like to involve her mother in this discussion. Anna responds that her mother knows she has been sexually active, and that it would be useful to have her present for this conversation, so she can help her decide.

Anna and her mother both express that they want to hear more about the side effects associated with hormonal contraception.

### **Hormonal Contraception in Youth:**

You ask Anna and her mother what they have heard about the side effects of the hormonal contraceptive options. Anna says that one of her friends who was on the pill gained a lot of weight, and is worried the same could happen to her if she starts the pill. You reassure Anna that there is no evidence to support an association between oral hormonal contraceptives and weight gain. Because Anna is concerned about weight gain, you suggest that DMPA might not be a good option for her; while some women gain no weight on DMPA and some even lose weight, on average, women gain weight on DMPA. For those prone to gain weight on DMPA, the weight gain can be significant.

Anna is disappointed to hear that DMPA can be associated with weight gain, but wants to know if there are any other side effects associated with DMPA before ruling it out. You inform her that DMPA has also been associated with a decrease in bone mineralization. However, it has been shown that there is a rebound increase in bone mineralization once DMPA is discontinued. If she chooses DMPA, you recommend that she should take calcium and vitamin D supplementation to optimize her bone health. Anna is not certain about DMPA, and would like to try the pill. Her mother states that she herself was previously on the pill, and recalled that her doctor mentioned that the pill can be associated with blood clots.

You counsel Anna and her mother that estrogen-containing contraceptives increase the risk for blood clots, or thrombosis. However, the risk for thrombosis in youth is quite low. Therefore, even though estrogen-containing pills may raise this risk, the absolute risk of using estrogen containing pills is still very low.

Anna's mother feels reassured about the risk for blood clots. However, she recalls that she, herself, experienced side effects such as moodiness when she tried the pill. Anna's mother asks you if prescribing a pill with the lowest dose of estrogen would lower the risk of these side effects.

You inform Anna and her mother that studies have shown no overall difference in side effects between the different types of low dose oral contraceptives containing either 20 or 30 to 35 µg of ethinyl estradiol. However, pills with only 20 µg of ethinyl estradiol are associated with lower bone mineralization than 30 to 35 µg or placebo, and since adolescence is a critical time for bone mineralization, we suggest that youth start with a 30 to 35 µg pill.

After this discussion, Anna and her mother both agree that the combined oral contraceptive pill would be the best option for Anna. Anna asks you when she can start the pill.

**Starting a Method of Contraception:**

Anna's last period was 2 weeks ago. She has regular periods, and that one was on time and not unusual in any way. You suggest that she can start right away, rather than waiting for her next period. You can use this "quick start" method for prescribing contraception, because you know, based on history, that it is unlikely that Anna is pregnant. Furthermore, there are no documented teratogenic effects from using contraceptive pills or DMPA early in pregnancy.

Anna's mother asks if Anna needs a pelvic exam before she starts taking the pill. Anna appears uncomfortable with this option.

You reassure Anna that, in her case, a pelvic examination is not necessary because, prescribing contraception is not itself an indication for a pelvic exam. A pelvic exam is suggested only if it is expected to yield data, for example in a patient with abdominal pain or vaginal discharge, in order to rule out pelvic inflammatory disease. Pap smears

are no longer recommended for youth before the age of 21 unless they are immunosuppressed AND sexually active.

Although Anna did not want to use a LARC, it is important to know how to prescribe these.

The copper IUD or IUS can be inserted at any point during the menstrual cycle. However, since an IUD or an IUS can disrupt a pregnancy, you need to be reasonably certain that your patient is not pregnant before inserting it.

If your patient does choose an IUD or IUS, STI screening must occur, but this can be done at the time of insertion. Otherwise, STI testing can now be done using patient-collected methods, and is itself not a reason to delay prescribing contraceptives. Finally, when prescribing a contraceptive method, provide a year-long prescription. It has been shown to improve adherence. Dispensing a year's supply is even more effective.

With that in mind, you provide Anna with pills on site, at this appointment, and you give her a year-long prescription for the pill. You remind Anna that, she should still use condoms because oral contraceptive pills have a failure rate of 9%, but when used with the condom, the failure rate drops to 2%. Additionally, condoms reduce her chances of getting an STI. Condoms should be used regardless of which contraceptive option she chooses.

You set a follow-up appointment with Anna for three months' time, so that you can make sure that Anna is doing well on oral contraceptives and assure her that she can arrange to see you sooner if she or her mother have any concerns.

### **Summary:**

Now, we will recap the important take-home messages from this podcast.

First, all healthcare providers should take the opportunity to discuss sexual and reproductive health with youth. Provide confidential care, and involve the parents if the youth is willing.

Second, collaborate with your patient to choose a method of contraception that is acceptable to them, while taking into account the effectiveness and side effects of a given method. Methods should be recommended in order of effectiveness. Recall that LARCs provide youth with the best protection against unintended pregnancy, and should be the first line recommendation.

Third, pills containing doses of ethinyl estradiol of 30 to 35 µg are preferable to those with less than 30 µg. The side effect profile with both doses is comparable, and the lower dose ethinyl estradiol containing pills are associated with poorer bone mineralization.

Finally, when starting your patient on a contraceptive method, make it as easily accessible as possible to decrease the barriers to use: implement a "quick start" method, provide yearlong prescriptions, and pills on site, and do not perform a pelvic exam unless indicated.

Thank you for listening to this podcast about the CPS Statement on Contraceptive Care for Canadian Youth. Should you have any questions or comments, please contact Dr. Di Meglio or myself, and we would be happy to answer them! Stay tuned for more PedsCases podcasts!