Contraception and Spinal Cord Injury

An excerpt from: www.scisexualhealth.ca/contraception
Last updated: August 2020

Contraception Methods:

Contraception, commonly known as birth control, comes in a variety of forms that can assist you in preventing an unplanned pregnancy. In addition to the considerations every woman has when selecting a method of birth control, women living with a spinal cord injury may want some additional information before deciding, with their healthcare provider, which method will best suit them.

Women with SCI may experience worsened and different premenstrual and menstrual symptoms than compared to pre-injury. These can include spasms, autonomic symptoms such as sweating, flushing, headaches and goosebumps. Many types of contraception may help to reduce these symptoms. Continuous cycling of hormonal birth control (no hormone free interval) to induce menstrual suppression, may be beneficial to women with painful or bothersome menstrual symptoms and is an entirely safe way to take birth control.

Any form of hormonal birth control is considered a medication and may have interactions with other medications you may be on. Many women with SCI struggle with frequent urinary tract infections, requiring the use of antibiotics. There is a common myth that suggests antibiotic use may impact the effectiveness of birth control. Rifampin, which is commonly used to treat tuberculosis and other bacterial infections, is the only antibiotic that may decrease the effectiveness of contraception

The information provided below is a summary only and we acknowledge there may be some gaps due to a lack of current research. To find out more general information about birth control options, please visit www.sexandu.ca

Combined Hormonal Contraception (CHC)

How it works: Two hormones, estrogen and progestin, act to suppress ovulation and thicken cervical mucus, making it more difficult for sperm to get through and also thins the lining of the uterus making it less likely to support implantation.

There have been some questions surrounding a possible increased risk for blood clot formation due to the immobility associated with chronic spinal cord injury (SCI).

- CHC's with higher estrogen levels, pose an increased risk in any woman, particularly those over the age of 35 who smoke.
- Although there is an increased risk for blood clots in the first three months after injury, *there is no evidence to support that women with chronic SCI are at higher risk than able-bodied women.*
- CHC use should be avoided or prescribed with caution after SCI for women who have a history of smoking, migraines, deep vein thrombosis (DVT), or a cardiovascular condition.
- Women with impaired sensation may not be able to feel some of the warning signs associated with a blood clot such as swelling, numbness/tingling or pain in legs, eye problems such as blurred vision or flashing lights, severe headache not relieved by over the counter medications, chest or arm pain, shortness of breath, coughing up blood, or abdominal pain.
- Hormonal birth control can cause an increase or change to vaginal discharge (may appear more white) due to changes to cervical mucus. Some women may be surprised or concerned if new to hormonal birth control.
- CHC's generally will decrease premenstrual symptoms and decrease menstrual flow.

<u>Combined Hormonal Contraception (CHC) Options</u>
Listed below are a short description of the different forms of CHC and the specific considerations related to spinal cord injury for each one.

Pill – *Take one pill every day, ideally at the same time. No back up contraception needed if you are less than 24 hours late taking your pill. Consult product monograph if you miss 1 or more pills.*

- Requires some hand/arm dexterity to handle pills.
- Most can be continuously cycled with no hormone free interval (resulting in less frequent, lighter or absent periods).
- May be beneficial for women who find changing tampons/pads burdensome.

Vaginal Ring – *A soft flexible ring inserted into the vagina for 3 weeks then removed for 1 week, allowing a period to occur.*

- May be difficult to insert/remove if limited hand/arm function.
- Can cause vaginal irritation, if you are prone to Autonomic Dysreflexia this may be a trigger.
- Can slip out of vagina if not properly inserted, when force is exerted such as when having a bowel movement, or transferring.
- Women with decreased sensation may not feel if the ring migrates lower down or falls out.
- Can be continuously cycled with no hormone free interval (resulting in less frequent, lighter or absent periods).
- May be beneficial for women who find changing tampons/pads burdensome.

Patch – *An adhesive patch is worn on the buttocks, back, stomach or upper arm and changed weekly for 3 weeks. This is followed by 1 week without wearing the patch, allowing a period to occur.*

- Requires some dexterity to apply and remove the patch.
- Efficacy reduced in women weighing 90kg or more.
- May be good choice for those with gastrointestinal issues as it bypasses the gastrointestinal tract.
- Can be continuously cycled with no hormone free interval (resulting in less frequent, lighter or absent periods).
- May be beneficial for women who find changing tampons/pads burdensome.
- Can cause skin irritation due to the adhesive or hormones used in the patch, especially if not placed in different location for each cycle. It is encouraged to do skin checks after removing the patch

Progestin-Only Hormonal Contraception

How it works: One hormone – progestin, acts to suppress ovulation and thicken cervical mucus, making it more difficult for sperm to get through and also thins the lining of the uterus making it less hospitable for implantation.

- Because progestin only contraceptives do not contain estrogen, they may be a good option for women who have contraindications to the combined methods of birth control, such as those with a history of stroke, migraines with aura, or those who smoke.
- Progestin only contraceptives are more likely to cause irregular bleeding which may be a drawback for women who find this unpredictability an inconvenience.

Progestin-Only Hormonal Contraception Options

Pill – *Take one pill every day at the exact same time. The pill must be taken continuously without any breaks. This is due to the short action of progesterone; after taking a pill, all the hormone is used up by your body within 24 hours. A missed pill by more than 3 hours requires back up contraception and intercourse within the 48 hours after this may result in pregnancy.*

- Requires some hand/arm dexterity to handle pills.
- May cause weight gain (approx. 1-2kg per year of use due to appetite stimulation, may be important issue for those needing assistance with transfers).
- May not work well for those who find it difficult to adhere to a regular schedule due to stringent dosing times.

Depo-Provera – *An injection given by a healthcare professional into a muscle, every 12-13 weeks.*

- Associated with decreased bone mineral density, most rapidly during the first two years of use, this is largely reversible after one year of discontinuation. Women with SCI are already at higher risk for osteoporosis below their level of injury. Calcium and Vitamin D supplementation is highly recommended.
- May cause irregular bleeding initially.
- 55-70% of women will stop getting their period after 12-24 months.
- Must be able to tolerate injections.
- May cause weight gain (approx. 1-2kg per year of use due to appetite stimulation), may be important issue for those needing assistance with transfers.
- Slower return to fertility when compared to other methods, approximately 10 months from last injection.

(Continued on next page)

IUD (Intrauterine Device)

How it works: A small T shaped device inserted into the uterus by a healthcare professional. This is a long acting reversible form of contraception which can stay in place for 3-10 years depending on the device.

- There has been some misinformation based on older studies which reported that IUD's pose an increased risk for pelvic inflammatory disease (PID). It has now been shown through more recent and higher quality studies that the risk for PID among IUD users is actually the same or less when compared to women without an IUD.
- If you are prone to autonomic dysreflexia this may be a risk for you during insertion of the IUD and should be discussed with your doctor.
- Insertion lasts approximately 5 minutes and can be painful in some women with sensitive cervixes- taking ibuprofen before the procedure can help.
- After the initial insertion, some cramping and irregular spotting is expected which should settle out within 3 months.
- A very convenient form of birth control for women in monogamous relationships with no need for condom use.
- If you have decreased pelvic sensation, you may not be able to feel the symptoms of rare complications such as vaginal perforation (1/1000 risk), infection, or ectopic pregnancy. Speak with your provider about having an ultrasound approximately 6 weeks after insertion to check for correct placement.
- There is an approximate 5% risk of expulsion – your IUD falling out.

<u>IUD (Intrauterine Device) Options</u>

Hormonal IUD (Ex. Mirena, Jaydess) – *Prevents pregnancy for 3-5 years depending on device. A small amount of progesterone is slowly and locally released in the uterus. This causes the cervical mucus to thicken, blocking sperm from entering, it also thins the uterus lining making it less hospitable for implantation. The amount of hormone is less than in other forms such as patches, pills, or the shot.*

- 50% of women will experience amenorrhea in 1 year, this may be beneficial for women who find changing pads and tampons burdensome.
- May also cause irregular and light periods which may be an advantage or disadvantage depending on the woman.
- Improves symptoms of endometriosis (cramping and painful periods).

(IUD Options continued on next page)

Copper IUD (Ex. Flexi T380, Liberte) – *Prevents pregnancy for 5-10 years depending on device. Prevents pregnancy by interfering with sperm movement, egg fertilization, and changing the environment within the uterus to make it less likely sperm will survive.*

- Periods may be heavier (approximately 50% increase in blood loss), longer, or more uncomfortable, particularly in the first several cycles after insertion.
- May not be a good choice if you have a history of anemia due to risk of heavy periods.
- Can be used as emergency contraception if inserted within 7 days of unprotected sex.

Barrier Methods

Male Condom: *A common physical barrier method that men can use. Rolled over the penis to catch semen.*

- If partner cannot apply the condom, would require some hand dexterity for woman to apply.

Female Condom*: Made from a soft plastic with two flexible rings at each end. The closed end is inserted inside the vagina and the open end partially covers the outer lips/labia.*

- Requires some hand/arm dexterity to insert.

Diaphragm: *A rubber dome shaped device, initially fitted by a clinician. Placed high in the vagina over the cervix and used in conjunction with a spermicide. It may be left in place for 24 hours.*

- This is no longer a common form of birth control, check with your accessible clinic to determine if this service is available.
- Requires hand/arm dexterity to insert, must be fitted by clinician.

Vasectomy*: A permanent method of birth control available for men. The procedure is done in a clinic where the vas deferens from each testicle is sealed so that sperm cannot enter the semen. Often covered by medical insurance.*

Tubal Ligation: *A permanent surgical method of birth control for women, where the fallopian tubes are cut, blocked or tied so an egg may not pass from the ovaries into the fallopian tubes for fertilization.*

- Depending on your overall health status, the procedure may be more risky due to spinal cord injury related factors, i.e. decreased lung function, autonomic dysreflexia.

Other Methods

Fertility Awareness – *Also known as the rhythm method, this is a way to predict your fertile or infertile times of the month, based on body signs like cervical mucus and basal body temperature. Abstinence or a back-up method is needed during fertile times. A risky method, 24 out of 100 couples who use this will become pregnant every year with typical use (a much higher rate of pregnancy than when compared with other methods).*

- If you plan to use basal body temperature as a way to track your cycle, this may be unreliable due to a possible difficulty your body may have in regulating temperature. Frequent urinary tract infections may also cause temperature fluctuations.

Withdrawal – *When a penis is removed from a vagina before ejaculation occurs. Even if pulled out in time, pregnancy can still happen. 22 out of 100 couples who use this method will become pregnant.*

- This method completely relies on your partner and their degree of self-control.

Abstinence – *Can mean different things to different people. To prevent pregnancy with this method, no penis to vaginal sexual activity occurs, and no sperm come in contact with a vagina.*

Lactational Amenorrhea – *A method available to exclusively breastfeeding individuals who have not started menstruating, breastfeeding alters hormones needed to trigger ovulation. 2 out of 100 couples who use this method will become pregnant within the first 6 months based on typical use.*

Emergency Contraception

Progestin Pill (Plan B, Contingency 1) – *An over the counter, progestin only emergency birth control bill. Most effective when used in the first 24 hours, the effectiveness decreases the longer you wait, but it can be taken up to 5 days after unprotected or risky intercourse. It prevents pregnancy by delaying ovulation and preventing fertilization of an egg by altering the lining of the uterus. Not meant as a primary method of birth control.*

- Less effective in women weighing 165 to 176 pounds (75-80 kg) and not effective in women over 176 pounds.

Ella (Ulipristal Acetate) Pill – *Available by prescription, this pill works by disrupting the way progesterone works in your body. It prevents or delays ovulation and may also prevent implantation of an egg by changing the lining of the uterus. Can be taken up to 5 days after an episode of unprotected intercourse, with efficacy declining the longer you wait.*

- It is slightly more effective over a longer period of time than the progestin only emergency contraceptive pills and is thought to be equally effective for those who have a higher BMI.

Copper IUD – *Inserted within the first 7 days after sexual intercourse, may prevent fertilization or implantation. This is the most effective method of emergency contraception.*

- Considerations stated previously for IUD's also apply here: Periods may be heavier (approximately 50% increase in blood loss), longer, or more uncomfortable, and may not be a good choice if you have a history of anemia due to risk of heavy periods.

(References on next page)

References

If viewed in digital form, these links may be clickable. If not, refer to the Resources section at www.sci-sexualhealth.ca/contraception for clickable links to these references.

Websites

Sex & U – a trusted Canadian resource on sexual health - www.sexandu.ca

Options for Sexual Health: Health clinics located across BC - www.optionsforsexualhealth.org

Health Link BC - www.Healthlinkbc.ca

Society of Obstetricians and Gynaecologists of Canada – www.sogc.ca

Guidelines

Combined Hormonal Contraceptives (PDF) – Nurses and Nurse Practitioners of BC: https://portal.nnpbc.com/pdfs/education/dst/contraceptive-management/DST-CM-Combined-Hormonal-Contraceptives-[01-Feb-20-Present].pdf

Progestin-Only Hormonal Contraceptives (PDF) – Nurses and Nurse Practitioners of BC: https://portal.nnpbc.com/pdfs/education/dst/contraceptive-management/DST-CM-Progestin-only-Hormonal%20Contraceptives-[01-Feb-20-Present].pdf

Canadian Contraception Consensus – SOGC Clinical Practice Guidelines
https://www.jogc.com/article/S1701-2163(16)39786-9/pdf
SOGC Contraceptive Consensus: Updated Pandemic Guidance
https://sogc.org/common/Uploaded%20files/2020-04%20Contraception%20Consensus%20-%20Final%20Submitted.pdf

Books

Women's Health Issues in Spinal Cord Medicine: Principles and Practice (2nd ed.) – Lin, Vernon W. (2010) New York, NY: Demos Medical Publishing.

Menstrual Suppression in Special Circumstances – Yolanda A. Kirkham, Melanie P. Ornstein, Anjali Aggarwal, Sarah McQuillan, (2014). Journal of Obstetrics and Gynaecology Canada, Volume 36. doi: http://dx.doi.org/10.1016/S1701-2163(15)30442-4

Intrauterine contraception: Devices, candidates, and selection. Dean, G.,& Goldberg, A., (2017).