Women and Diversity Health

GUIDE TO MENSTRUAL HEALTH



2025

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Introduction

A period, also known as menstruation, menstrual flow, or Moon Time, is a natural process and a key part of human reproduction for women and persons with a uterus, fallopian tubes, and ovaries. Whether experienced as a cisgender woman, transgender man, nonbinary person, or gender diverse individual, there may be stigma around discussing periods or how they affect us. As we explore topics related to menstrual health, we approach the subject with sensitivity and recognize the diverse perspectives and feelings that individuals may have about their bodies and reproductive experiences. Our goal is to be inclusive and respectful while embracing the complexity of gender identity and reproductive health.



DID YOU KNOW?

Many women are uncomfortable talking about periods and most transgender men and genderqueer (non-binary) persons experience menstrual-related distress (dysphoria)[1].

The Menstrual Cycle

The menstrual cycle is a regular process where the body prepares for a potential pregnancy. Over a 21-to-35-day cycle, hormones produced in the body will rise and fall, causing a range of symptoms such as mood changes, headache, and breast tissue tenderness. The first day of a period (menstrual flow) marks day one of the menstrual cycle, with the average cycle lasting 28 days.

The hormone changes throughout the menstrual cycle will also impact the color and consistency of cervical discharge. The color is usually clear or white and can become yellow when dried. The texture may be creamy or sticky to raw egg-white and watery around the time of ovulation.

Healthcare providers will ask about when you last had a period, if it occurs regularly or irregularly, if it is painful, or if the menstrual flow is heavy to gather important information about your menstrual health. Keeping track of period patterns, cramps, discharge, mood, and other physical symptoms helps you and your healthcare provider assess perimenopause and menopause and identify potential issues, fertility windows, and reproductive organ health concerns related to gender affirming care, if needed. Tracking the length and regularity of your cycle is also helpful in preparing for military training, taskings, or deployments.

TIP There are lots of tools available to track menstrual cycles, from paper-based diaries to mobile apps. These can be helpful to use when talking to a healthcare professional about any concerns.



Menstruation

Menstruation (a period) is when the lining of the uterus sheds away. This lining was grown in preparation for pregnancy and if a pregnancy does not occur it will shed as a discharge of blood and other tissues. You can expect to lose about 30ml to 80ml of blood during one period.

Symptoms such as low mood, cramping in the lower abdomen, feeling tired, and appetite changes are common during a period. These symptoms may improve as ovulation approaches and the hormone estrogen rises.

DID YOU KNOW?

The level of progesterone hormone is high the week before a period begins, which causes muscles to relax and digestion to slow down. A slower digestive system leads to water retention, bloating, and constipation. Once progesterone levels drop and a period begins, digestion returns to normal which can result in some diarrhea as things get moving again.



Menstrual Gingivitis

In the days leading up to a period when estrogen and progesterone levels are high, there is an increase in blood flow to the gums which can make them more sensitive and prone to inflammation. This can result in a higher risk of gingivitis (gum inflammation). Proper oral hygiene practices such as regular brushing, daily flossing, and using an antiseptic mouthwash can help manage symptoms.

Ovulation

Ovulation is when an egg is released from the ovaries, which usually occurs midway through the menstrual cycle. In a 28-day cycle, ovulation would be around day 14. In a longer 32-day cycle, ovulation would be around day 18.

Ovulation may cause mild pain in the lower abdomen and often changes the cervical discharge to a thin, slippery texture that resembles raw egg whites. At this stage, the body is ready to get pregnant (fertile).

During ovulation, the hormone estrogen will peak and then drop slightly which may cause some early premenstrual symptoms for a short time. Estrogen will rise and fall once more causing more intense premenstrual symptoms leading up to a period.



DID YOU KNOW?

When an egg is released (ovulation), it can survive for 12 to 24 hours. In contrast, sperm can survive for up to five days inside the vaginal canal. This timeframe is known as the fertile window. Monitoring for signs of ovulation and using the fertile window may increase the chances of conception. However, this timing is not a reliable form of contraception.

Premenstrual Syndrome

Premenstrual syndrome (PMS) describes the physical and mental symptoms experienced in the days after ovulation and before menstruation. Symptoms can range from mild to severe and may include abdominal pain, back pain, breast tissue tenderness, headache, decreased mood or heightened irritability, fatigue, cravings, depression, or gender-related distress (dysphoria).

Studies suggest that 80% to 90% of people experience at least one of the PMS symptoms in their cycle; however, for 2.5% of people it is severe enough to affect their work and activities. This is known as premenstrual dysphoric disorder (PMDD). Speak to your healthcare provider if you think this may apply to you.

Managing Your Period

Periods usually start between 11 and 14 years of age (menarche) and stop between 45 and 55 years of age (menopause). On average, that adds up to around 450 periods in a lifetime!

A typical period will last between three and eight days, with five days being average, and the heaviest flow occurring on day one and two. During heavy flow, expect to change period products more frequently and manage mild cramps or discomfort.

Some ways to reduce discomfort include:

- Over-the-counter medication (oral pain relievers) like acetaminophen or ibuprofen.
- Gentle exercise.
- Soaking in a warm bath.
- Applying a heat pad or hot water bottle.
- Gels, creams and rubs (topical pain relievers) like diclofenac gel.
- Light physical activity.

By age 40, it is common to experience changes to timing and flow of periods including more frequent or heavy periods due to the hormonal changes of perimenopause. Perimenopause is the transitional phase leading up to menopause. Other symptoms such as hot flashes, mood changes, hair and skin changes are also common and may last well into postmenopause. The average age of menopause is 51.5 years.

Hormonal Contraceptives



Hormonal contraceptives are medications used to prevent pregnancy (birth control) and can also be very useful for managing period patterns, pain, and flow (period control). They work by preventing ovulation and maintaining a thin lining within the uterus.

Hormonal contraceptives come in the form of pills, patches, vaginal rings, injections, and implants (arm or uterus). Using these hormonal methods for 5 to 10 years can also reduce risks of cancer in the uterus and ovaries by 50%.

Period Products

Choosing a period product depends on many factors, including your lifestyle, comfort preferences, flow intensity, budget, and environmental concerns. Period products

either absorb or collect menstrual flow and are worn either internally or externally. A combination can be worn for added protection from leaks. All period products have their advantages and disadvantages depending on the training or operational setting.

Reusable Products

Reusable period products come in absorbent and collection methods which need washing between use and need to be stored and carried in a sanitary pouch or sealable waterproof bag until it is possible to clean them.

Absorbent period products such as re-usable pads or underwear must be rinsed out by hand, using running water until the water runs clear. This wastewater needs to be disposed in the sink or ablution station. Absorbent products then need washing with soap or detergent and will need to dry before they are next used. Most have a longer lifespan if they are washed in cool water, either in a washing machine or by hand washing and allowed to air dry. Most industrial or group laundry facilities are likely to use hot water and tumble dry which may reduce the effectiveness of the products.



Collection period products such as menstrual cups should be rinsed out between uses and need sterilizing between periods. Sterilizing fluid, boiling water or access to a microwave may be needed (check manufacturer recommendation). Reusable microwave steam bags for baby bottles and breast/lactation pump parts may be an option for sterilizing silicone menstrual cups between periods.



Disposable Products

Disposable products also come in absorbent and collection methods which can be discarded with regular household waste once they have been wrapped or contained to prevent odor and leakage. Disposable options can offer challenges in some settings where discarding is difficult (e.g., air operations, field exercises). A sanitary pouch or sealable waterproof bag may be needed to carry used products until disposal containers are available.

No period products should be flushed down a toilet to dispose of them because this causes blockages and damage to septic systems. Biodegradable period products may

break-down faster in a landfill but are also not appropriate to flush down a toilet or discard in a portable toilet.



DID YOU KNOW?

Pads, tampons, and disposal containers are available and free in women's, men's, all-access, and gender-inclusive washrooms across DND sites and all other federally regulated workplaces in Canada[2].

Toxic Shock Syndrome

Toxic shock syndrome (TSS) is a very rare but life-threatening condition caused by bacteria growing quickly in the body and releasing harmful toxins into the bloodstream.

Around half of all reported TSS cases occur in persons having a period. This increased risk is due to a combination of conditions that starts with changes in the natural acidity of the vagina during a period that can lead to an increase in the growth of bacteria in the vagina. The prolonged use of internal period products, like tampons and menstrual cups, introduce oxygen into the vagina and create a breeding ground for the bacteria.

It is very rare for TSS to develop; however, it progresses very quickly and can be fatal if not treated right away. Symptoms of TSS include high fever, chills, light-headedness, dizziness or fainting, muscle aches, vomiting and diarrhea. Seek urgent medical attention if you have this set of symptoms.

The following practices can reduce the risk of TSS associated with tampons and menstrual cups:

- Wash hands with soap before and after inserting a tampon or menstrual cup.
- Use a tampon with the lowest absorbency for the heaviness of the menstrual flow.
- Consider using liners when menstrual flow is light.
- Change internal period products regularly at least as often as directed on the pack.
- Consider alternating between internal and external products during a period.
- Place a fresh tampon or clean menstrual cup before bed and remove it as soon as practical on waking up.
- Check for a retained tampon or menstrual cup at the end of a period.
- Sterilize menstrual cups between periods. Wash with soap and water whenever possible.

Physical Activity

Managing periods while participating in physical activity involves planning and preparation to stay comfortable and maintain performance.

Choose period products that suit your activity level and comfort. For high-intensity activities like running or swimming, tampons or cups may be preferable over pads as they provide more freedom of movement and reduce the risk of leakage. Period swimwear is also an option on the market.



Change period products regularly to prevent odor and discomfort. If you're engaging in prolonged physical activity, such as hiking or camping, or similar military activities, carry extra supplies and consider planning breaks to change as needed.

Hygiene Considerations

Hand washing before and after changing period products is strongly advised to reduce the risk of infection. Hand hygiene is essential when there is a need to insert your fingers into the vagina to place or retrieve a product. Washing hands with soap and water is preferred, but body cleansing wipes or hand sanitizer can be used when washing is not practical.

Daily body washing is recommended to remove dried blood on the skin, reduce infection risk and odor concerns. When washing in water is not practical due to operational constraints, non-scented body cleansing wipes can be used externally.

Vaginal douching, or the process of intravaginal cleansing with a liquid solution, is strongly not recommended. Current research suggests that douching can increase the risk of pelvic inflammatory disease, ectopic pregnancy, and, possibly, cervical cancer.

Menstrual Suppression

Menstrual suppression, also known as menstrual management or period control, is the temporary reduction or elimination of a monthly period using certain hormonal contraceptives or other medications prescribed by your healthcare provider. Suppressing menstruation can increase energy and concentration, reduce symptoms of anemia, and improve quality of life.

This option is beneficial for those who experience gender dysphoria, or as treatment

of severe menstrual symptoms such as heavy periods (menorrhagia), painful periods (dysmenorrhea), irregular periods, or PMS. For those with endometriosis (see Period Problems below), menstrual suppression can help prevent the disease from progressing and stop symptoms from getting worse.

For many others, menstrual suppression is preferred simply for the convenience of not having a monthly period and avoiding the menstruation-related symptoms that often disrupt their schedules and activities. This can be particularly useful in military training, taskings or deployments.

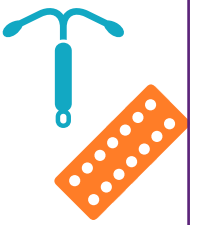
HOW IT WORKS



Hormonal medications reduce menstrual flow by keeping the lining of the uterus thin. Typically, when this medication is used for birth control it is taken for three weeks and stopped for one week (or there may be a fourth week of non-hormonal reminder pills). This break allows hormone levels to drop and for a period to occur with only a thin uterine lining being shed (amounting to less menstrual flow).

When hormone levels remain high, the thin uterine lining is maintained and not shed at all (or shedding may be very limited which is called spotting/breakthrough flow).

HOW TO USE IT



There are several ways to maintain a high level of hormones. Your healthcare provider can insert a hormonal intrauterine device (IUD), implant, or administer an injection that will slowly release hormones to reduce and eliminate the monthly period. IUDs and implants can be removed at any time and need to be replaced every few years. Injections need to be repeated every three months.

Birth control pills, patches and vaginal rings can also be used by continuously using the medically active form without stopping to allow a period. Talk with your healthcare provider to ensure your prescription is supported for suppression.

HOW LONG IT TAKES TO WORK



The time it takes to achieve menstrual suppression depends on the method used, but most will reach full effect within a few months. You will need to start well before the timeframe during which you wish to suppress your period. The most common reported side effects during the initial treatment phase includes nausea, breast tissue tenderness, headaches, mood changes, and breakthrough flow or spotting. Regular follow-up appointments with your healthcare provider are important to assess effectiveness, address any concerns and adjust the treatment plan as needed.

HOW IT IMPACTS FUTURE FERTILITY



Menstrual suppression using hormonal contraceptives does not impact future fertility. Your usual menstrual flow returns, and fertility is restored within a few weeks once the medication is stopped, or implant is removed. Discuss with your healthcare provider if you would like to know more about menstrual suppression or contraception options.

Period Problems

Periods can sometimes be accompanied by pain, mood changes and heavy flow. Tracking your menstrual cycle helps you understand your body better and recognize what's normal or abnormal for you in terms of cycle length, duration, and symptoms. If your period is causing you to miss duties or activities, talk with your healthcare provider. They may order some bloodwork or imaging to find the cause and can discuss medications and lifestyle changes that may help you.



Painful Periods

A painful period (dysmenorrhea) is when symptoms like aching or cramping in the lower abdomen affect your ability to exercise or carry out daily routine activities. Painful periods could be a symptom of endometriosis (see below) and should be discussed with your healthcare provider if you experience the following:

- Pain that is debilitating; unable to perform daily activities or work.
- Pain that is always present and is affecting sleep.
- Pain when passing urine, stool or during sex.
- Pelvic pain experienced outside of a period.

Heavy Periods

A heavy period (menorrhagia) differs from person to person; what may be considered a typical period for one individual may be excessive for another. Not everyone will need or choose to have treatment for heavy periods, but there are medication options that target the blood-clotting system of our body or that target the hormones of the menstrual cycle which can help. Heavy periods are generally described as:

- Longer than eight days.
- Losing a large amount of fluid:
  - soaking through one or more pads or tampons every hour for several hours.
  - always needing double protection to control the flow.
- Passing blood clots larger than a toonie.



Heavy periods should be discussed with your healthcare provider if you experience severe symptoms such as:

- Spotting that occurs between periods or after sex.
- Feeling weak, tired, dizzy, and short of breath (which may be symptoms of anemia).

While heavy or frequent periods are common during perimenopause, it is important to discuss these symptoms/changes with your healthcare provider to determine the underlying cause. An ultrasound can show if there are any polyps or fibroids, which are typically not harmful. Cancerous conditions in the uterus are rare, particularly in younger patients, and pre-cancerous conditions can be treated with progesterone hormones.

Anemia

Anemia is a condition where the red blood cells do not carry enough oxygen from the lungs to the rest of the body. One type of anemia is iron-deficiency anemia. Hemoglobin is the iron-rich protein in red blood cells that carries oxygen. Your body needs iron to make hemoglobin. Without enough iron, the body can't make enough hemoglobin for the red blood cells, and without enough hemoglobin your tissues do not get enough oxygen. Heavy menstrual flow can reduce iron stores which may lead to iron-deficiency anemia. Persons with anemia often feel tired, weak, dizzy, short of breath and may have an irregular heartbeat.

Iron-deficiency anemia can be prevented by increasing the iron in your diet or regularly taking an iron supplement. See your healthcare provider if you have symptoms of anemia.

Absent Periods

Absent periods (amenorrhea) refer to the absence of a period in people of reproductive age. There are two types of absent periods:

1. **Primary amenorrhea** is a rare condition in which someone has never had a period (no menarche). This can happen in those who have and those who have not developed breast tissue or pubic hair associated with puberty.

2. **Secondary amenorrhea** is when previously regular periods become absent for three or more months in a row. This type of amenorrhea is more common, and causes include:

   - Pregnancy.
   - Perimenopause and menopause.
   - Menstrual suppression using hormonal medication.
   - Polyendocrine Metabolic Ovarian Syndrome.
   - Hormone therapy such as testosterone or hormone blockers.
   - Some medications such as certain antidepressants or antiseizure medication.
   - Eating fewer calories than you burn over time (energy imbalance). This can also have consequences for bone mineral density.

DID YOU KNOW?

Absent (amenorrhea) or infrequent (oligomenorrhea) periods can be common in the military population due to the physically demanding nature of their activities. Factors such as intense training, physically demanding exercises, courses, and deployments can all contribute to these menstrual irregularities.

Infrequent periods (oligomenorrhea) are inconsistent and irregular menstrual cycles.

These cycles may last longer than 35 days, resulting in only four to nine periods each year. While some irregularity can be expected after childbirth and during the perimenopause phase, some other temporary causes include:

- Polyendocrine Metabolic Ovarian Syndrome.
- Hormone therapy.
- Thyroid disorders.
- Diabetes.
- Eating disorders or restrictive eating.
- High intensity exercise.
- Excessive stress.

A person who unexpectedly misses a period should consider a pregnancy test (if sexual activity has occurred) and discuss this with their healthcare provider. Any spotting or flow that occurs after menopause (absent periods for 12 months in a row) should also be discussed with your healthcare provider.

Energy Imbalance



Energy deficiency is one reason that periods may stop temporarily. Energy imbalance occurs when your calorie intake is much lower than the energy you use. Many military members will experience physically demanding training or deployment situations which use a high amount of energy. Over weeks or months, this imbalance can affect many body systems including your hormone levels, period cycle, bone health, and even immune function. This can also impact your mood, physical performance and cognitive abilities. While it is

not always possible given occupational and operational challenges, it is important to eat well to fuel yourself for best performance.

Polyendocrine Metabolic Ovarian Syndrome

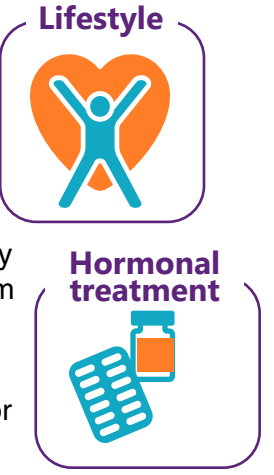
Polyendocrine Metabolic Ovarian Syndrome (PMOS) is a common hormonal disorder that leads to irregular menstrual cycles, difficulty processing sugar and fat, oily skin, and irregular hair growth.

When the hormones that regulate blood sugar and menstrual cycles are out of balance in those with PMOS, they may experience acne, unwanted body hair, hair loss on the scalp, weight gain and/or difficulty losing weight. As well, ovulation and the shedding of the uterine lining do not occur monthly which impacts fertility.

Many people with PMOS can get pregnant without medical help and some may not initially realise they are pregnant because they are used to missing periods due to infrequent egg release or ovulation.

If left untreated PMOS can be associated with diabetes, high blood pressure (hypertension), cardiovascular risks, abnormal thickening of the uterus lining and uterine cancer. Treatment includes medication and lifestyle adjustments such as improved nutrition (reducing starchy and sugary foods) and regular cardiovascular exercise to help improve blood sugar. Period-control medications such as pills or implanted progesterone to regulate periods can keep the uterus lining thin, preventing abnormal flow and long-term complications. Your healthcare provider can help you target symptoms that concern you most about PMOS – whether it is related to body hair, metabolism, periods, or fertility.

Premenstrual Dysphoric Disorder



As discussed above (see PMS) the common premenstrual experience in the days leading up to your period may include symptoms of breast tissue tenderness, headache, decreased mood or heightened irritability, fatigue, cravings, depression, or gender dysphoria.

However, some people will experience extreme mood changes, anxiety, depression, or feelings of self-harm that can affect their ability to function around the time of their periods. This is a more severe form of PMS called Premenstrual Dysphoric Disorder (PMDD).

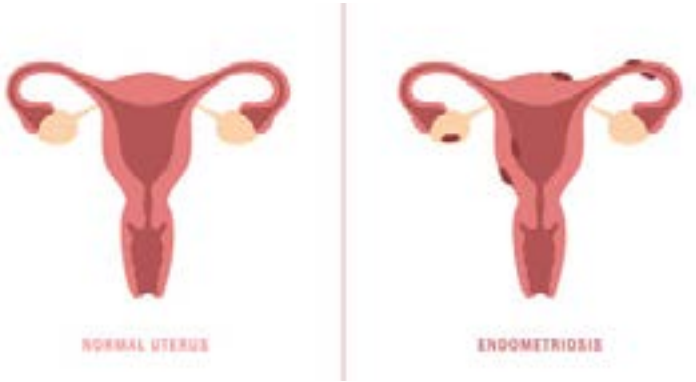
PMDD can be treated with some lifestyle modifications (nutrition, exercise, vitamins, sleep, stress management), hormonal treatment or antidepressant medications.

Endometriosis

Endometriosis is a long-term inflammatory condition where tissue similar to the lining of the uterus (endometrium) grows outside of the uterus, often within the pelvis. Endometriosis can cause severe or debilitating pain leading up to and during a period (dysmenorrhea), pelvic pain at other times of the month, urinary pressure or frequency, rectal pain, and pain during or after penetrative or non-penetrative sex. It may sometimes be associated with heavier periods. Depending on the severity of the disease, endometriosis may create challenges to getting pregnant (fertility) although more than half of people with endometriosis can become pregnant.

If you have any of these symptoms, talk with your healthcare provider to discuss possible causes, testing, and disease management. Diagnosis involves a medical and family history, pelvic exam, imaging (ultrasound or MRI), urine sample, and, if necessary, a tissue biopsy or removal of endometriosis deposits (minimally invasive surgery). These assessments can determine whether your pain is due to ovarian cysts, infection, or endometriosis.

Treatment for endometriosis aims to manage symptoms and improve quality of life.



Non-medical treatment includes:

- Heat pads
- Fresh fruits and vegetables (anti-inflammatory foods)
- Fish
- Vitamin B complex
- Belly breathing



Medical treatments include:

- Anti-inflammatory medication
- Pelvic floor physiotherapy
- Medication for menstrual suppression
- Surgery



For those having trouble getting pregnant due to endometriosis, in vitro fertilization or assisted reproductive technologies may be considered.

DID YOU KNOW?

Members who are eligible can claim the purchase costs of the underwear of their choice each fiscal year. This includes menstruation or incontinence type leakproof underwear. For more information on the policy, see Frequently Asked Questions about clothing CANFORGENS (mil.ca).

References

[1] Schwartz, B. I., Effron, A., Bear, B., Short, V. L., Eisenberg, J., Felleman, S., & Kazak, A. E. (2022). Experiences with Menses in Transgender and Gender Nonbinary Adolescents. Journal of pediatric and adolescent gynecology, 35(4), 450–456. https://doi.org/10.1016/j.jpag.2022.01.015

[2] https://www.canada.ca/en/employment-social-development/news/2023/05/canada-labour-code-to-ensure-access-to-menstrual-products-at-work-starting-december-15.html

Resources

Just for You – Women (Health Canada)
https://www.canada.ca/en/health-canada/services/healthy-living/just-for-you/women.html

Society of Obstetricians and Gynecologists of Canada (SOGC)
https://sogc.org/

Women's Health Coalition
https://thewhc.ca/resources/



WOMEN AND DIVERSITY HEALTH

SANTÉ DES FEMMES ET DE LA DIVERSITÉ