

Certified Fertility Counselor Course-Session 7- Menstruation Details- What's Normal and What's Abnormal

The History of Menstruation

It was believed in ancient times that if a woman was menstruating, she was fertile. In their belief, a man was not needed for a woman's fertility. Over time, menstruation was looked at as dirty, uncleanly in some cultures. Now in the twentieth century, menstruation is known as “the curse into womanhood”.



The meaning of menstruation differs from each culture. Historically, when a woman was menstruating, she was looked at as sacred and powerful. Especially with the Mayan's Mythology viewing it as a punishment for violating the social rules in governing material alliance, and the blood turning into snakes and insects used in black sorcery. That is, until the Maya Moon Goddess is reborn from it.

According to the Cherokee, menstrual blood was looked at as a source of feminine strength, but had the power to destroy enemies. In Ancient Rome, it was believed that a menstruating woman who uncovers her body will scare away hailstorms, and lightning. If she strips naked and walks around a field, caterpillars, worms and beetles fall off the ears of corn. In Africa, it is used in the most powerful magic charms to purify and destroy.

But now, in the twentieth century many have re-framed their thinking on menstruation, it's now becoming a woman, and capable to reproduce, but can also come with pain, heartache, and infertility barriers.

Menstruation can be somewhat troublesome and painful for many women. Hormones of the endocrine system play a role in a woman's menstrual cycle, and the amount of bleeding that occurs. Sometimes women may experience clotting, pain, abnormal bleeding, mid-cycle bleeding, and much more.

Women have been menstruating since the beginning of time, however over time the more our foods become modified and our lifestyles are lived, women who menstruate are experiencing reproductive issues, mainly the most common is endometriosis. Fibroids are forming, cancerous cervical cells are multiplying, and sometimes no menstruation are all being experienced. Health is among the most common reasons why women experience endocrine issues.

Normal Menstrual Bleeding

Normal menstrual bleeding can vary in length, but most women have three to five days of bleeding, but two to seven days is also considered normal. The average menstrual blood loss is 2.4 tablespoons, although 2 to 6 tablespoons are also considered normal. Menstrual blood contains vaginal secretions, cervical mucus, and endometrial tissue. Menstrual fluid is reddish brown, a slightly darker color than the blood in the veins. Many women will experience endometrial tissue during bleeding, resulting in small clots, which is normal. The normal sized clot is about a quarter in size. Anything bigger than a quarter and with pain needs to be addressed by a health care provider.

Clotting is often seen on the heaviest days of the menstrual period. Multiple clots could make menstrual bleeding thicker or denser than normal. Clots can be dark red in color or bright red in color. Clotting is a way to control the bleeding. Women who have a larger uterus may experience clotting as well. Imbalanced hormones between estrogen and progesterone can also cause heavy bleeding and clotting.

Towards the end of menstrual bleeding blood may become dark brown or almost black in color, this is normal and from blood not being expelled from the body quickly, so older blood will be in darker color.

There are two kinds of clotting factors. The first is from the menstrual blood after it's released from the cervix. If the blood actually coagulates after its release, then blood clots may appear. However what's known as 'false' clots are from the endometrial lining, which would be endometrial tissue.

What is an Anticoagulant?

Anticoagulant is a substance that prevents blood from clotting. The body typically releases anticoagulants to prevent menstrual blood from clotting as it is being expelled. But when a period is heavy and being expelled rapidly, there isn't enough time for anticoagulants to work. This results in clotting during menstrual flow.

Blood coagulation is triggered by blood cells called platelets which, through a series of chemical reactions, produce a substance called thrombin. This converts a blood protein fibrinogen to fibrin which then creates a series of tiny threads which lead the plasma in the blood to become sticky. The process protects the body from excessive bleeding, ensuring that a clot forms at the site of a wound or injury - either inside or outside the body. There is a constant state of formation and breakdown of tiny clots throughout the body.

The body produces an organic acid that occurs naturally called Heparin. Heparin is a naturally occurring anticoagulant produced by basophils and mast cells. Heparin prevents the formation of clots and extension of existing clots within the blood. Heparin does not break down clots, but the clots that have already formed, it allows the body's natural clot lysis mechanisms to work normally and break down clots that have formed.

Heavy Bleeding - Is it Abnormal?

Heavy menstrual bleeding that becomes a common routine in the menstrual cycle may be a concern. This is because many women who suffer from heavier menstrual bleeds are at risk for anemia from the loss of blood. As many as 60 percent of women over thirty five suffer from heavy menstrual periods.

Occasionally a woman may have a heavier menstrual bleed than normal. There is no cause of concern, as long as it's not with each cycle. If heavier than normal bleeding is noticed with each cycle, this can happen due to changes of imbalanced hormones, cysts in that particular cycle can cause the body to have a heavier than normal menstrual bleed, along with stress, food sensitivities, smoking, toxins, infection, chronic illness, fibroids, fragile blood cells, and endometriosis. Heavy bleeding can also be caused by a lack of iron, calcium, or vitamins A and K.

Unfortunately heavy bleeding in any menstrual cycle can cause general weakening of the body from lack of vitamins and minerals. This is why it's crucial to keep the proper amount of vitamins and minerals in the body's diet. Heavy bleeding is often referred to as menorrhagia. Most heavy bleeding during a menstrual cycle is often a result of imbalances of various organs, especially the thyroid and liver. Menorrhagia can also mean prolonged menstrual period at regular intervals. Menorrhagia can be caused by abnormal blood clotting, disruption of normal hormonal regulation of periods, or disorders of the endometrial lining of the uterus.

Light bleeding - Is it Normal?

Some women have lighter menstrual cycles (or less than normal under 2 tablespoons), where bleeding is really light, or really short in length. There are a few reasons why menstrual periods are light. A condition called oligomenorrhea, can be normal but a light period experiencing oligomenorrhea can also mean a woman is experiencing hormonal changes, or effects of medical conditions, poor nutrition or stress on the body.

With oligomenorrhea menstrual cycles are normally over 35 days, or irregular. There are times where a light period is experienced due to lack of ovulation, or have deficient levels of estrogen. Oftentimes women who have poly-cystic ovarian syndrome or an thyroid disorder will have lighter to scant bleeding during bleed.

Oligomenorrhea that occurs in adolescents is often caused by immaturity or lack of synchronization between the hypothalamus, pituitary gland, and ovaries. The hypothalamus is part of the brain that controls body temperature, cellular metabolism, and basic functions such as eating, sleeping, and reproduction. It secretes hormones that regulate the pituitary gland. The pituitary gland is then stimulated to produce hormones that affect growth and reproduction. At the beginning and end of a woman's reproductive life, some of these hormone messages may not be synchronized, causing menstrual irregularities.

Professional ballet dancers, gymnasts, and ice skaters are especially at risk for oligomenorrhea because they combine strenuous physical activity with a diet intended to keep their weight down.

Another condition is called hypomenorrhea, this means menstrual bleeding has very scant or little bleeding. The bleeding is considered to be lower than average. This condition may have entirely benign causes, requiring no treatment. Other times it can indicate an ongoing problem that should be looked at by a health care provider.

Some benign causes of hypomenorrhea include genetic predisposition, use of hormonal contraceptives, and previous size-reducing uterine surgery. By genetic predisposition, it's simply meant that some women have very light periods, and this might be seen in their family history, where several generations of women have experienced similarly light flow. Provided that light periods don't interfere with fertility and no other menstrual problems are present, this doesn't need to be treated.

Birth control pills and other hormonal birth control methods like the patch can cause periods to become extremely light. Some hormonal birth control methods are marketed for reducing the total number of periods per year and causing light flow. Since this is a desired side effect of these pills, it's not a cause for concern. Uterine surgery that has reduced the size of the uterus is generally thought of as a likely explanation for hypomenorrhea, and the condition might only be investigated if it were creating additional problems.

Other causes of hypomenorrhea are:

- High levels of stress
- Poor eating habits (includes fasting)
- Imbalanced hormones (estrogen, progesterone and thyroid hormones)

Sometimes this condition makes achieving pregnancy difficult because the body doesn't establish enough uterine lining each month to sustain a pregnancy, but this matter is a little confusing. Some women with hypomenorrhea are able to get pregnant and have children. Yet, women who are not on treatments like hormonal birth control should not assume a light period correlates to low fertility levels.

Mid-Cycle Bleeding – Is it Normal?

This depends on a lot of factors. Mid-cycle bleeding outside of the menstrual period could indicate gynecological problems. Many women experience mid-cycle spotting, or bleeding due to the release of the egg during ovulation. This type of bleeding is no concern, and can occur before the egg is even released, during and after. Normally this is mixed with the fertile cervical mucus, and only lasts a day or two.

Metrorrhagia is uterine bleeding at irregular intervals, particularly between the expected menstrual periods. Metrorrhagia may also be a sign of an underlying disorder, such as hormone imbalance, endometriosis, uterine fibroids, or cancer of the reproductive organs

Fibroids can also cause mid-cycle bleeding or spotting. Fibroids are noncancerous tumors that develop in the uterus. The exact cause of uterine fibroids is unknown, but estrogen imbalance is believed to be responsible. Uterine fibroids can range in size from microscopic to several pounds and usually develop in clusters. The most common symptoms of uterine fibroids include abdominal fullness, gas, mid-cycle spotting, increase in urination, heavy menstrual bleeding, pelvic cramps and pain and pain during sexual intercourse.

Endometriosis can also cause mid-cycle spotting. Endometriosis is a condition characterized by abnormal growth of the endometrium, which is the lining of the uterus that sheds during menstruation. In normal cases, the endometrium only grows inside the uterus. In those with endometriosis, the endometrium may grow on the fallopian tubes, ovaries or pelvic tissue. Even when the endometrium is located in abnormal places in the body, it still sheds as it would from the uterus. Some of the blood may exit the body, and some can become trapped and cause irritation and inflammation in surrounding areas. Symptoms of endometriosis include painful periods, pelvic pain, heavy periods, mid-cycle spotting and infertility.

Cervicitis is inflammation of the cervix. Cervicitis is usually caused by an infection such as chlamydia or herpes, but can also be caused by an allergy or exposure to chemicals.

Symptoms of cervicitis include mid-cycle spotting, unusual vaginal discharge, pain during sexual intercourse, vaginal pain and pelvic pressure.

Other reasons for Mid-cycle bleeding are:

Intermittent spotting between periods can result from any of numerous reproductive system disorders.

Adenomyosis
Endometrial hyperplasia
Polyps
Vaginitis
Diets which induce ketosis, such as the Atkins diet
Use of progestin-only contraceptives, such as Depo Provera
Cervical cancer
Uterine cancer
Vaginal cancer
Endometrial cancer
Primary fallopian tube cancer
Ovarian cancer
Uterine leiomyomas
Enlarged uterus with menorrhagia
Irregular ovulation, commonly caused by polycystic ovarian syndrome
Sexually Transmitted Infections
Von Willebrand Disease
Pelvic inflammatory disease
Change in oral contraception
Trauma
Sexual abuse or rape

Sometimes Mid-cycle bleeding is also referred to as breakthrough bleeding or withdrawal bleeding, which is common in those who use oral contraceptives, but can also happen to those with hormonal disorders.

If repeated mid-cycle bleeding is continued, this could also be a cause of iron deficiency anemia.

Too Frequent of Periods

Some women, mostly those who are underweight or have a luteal phase defect, have Polymenorrhea. Polymenorrhea is the medical term for cycles with intervals of 21 days or fewer. This could cause complications for fertility, as ovulation may not be occurring, or occurring during menstrual bleeding.

Polymenorrhea isn't a day or so of light bleeding between periods. Instead it is an actual period that occurs shortly after the last one and the condition causes concern when it occurs regularly. Sometimes cause of polymenorrhea can't be identified. On the other hand, cause of polymenorrhea may be easy find and may be related to certain medical conditions. Some of them are quite serious. Women who have endometriosis may experience this condition. It can also be a symptom of the very serious pelvic inflammatory disorder. Alternately, it may indicate presence of sexually transmitted diseases including chlamydia and gonorrhea.

Some of the causes of polymenorrhea are:

Excessive thickening of the uterine lining which can be attributed to hormone imbalance between estrogen and progesterone
Thyroid impairment can serve as a factor
The onset of perimenopause can cause bi-monthly menstruation cycles due to hormonal disparity in the significant reduction of estrogen and progesterone production
Fibroids that can inhabit the uterus as benign tumors as well as polyps that adhere to the lining of the uterus. This structure tend to invite a coating that is less than stable, causing it to slough off more frequently in the form of more closely spaced periods. These non-cancerous growths may also produce heavier and extended bleeding

One of the major indicators in initiating hormonal imbalance in polymenorrhea is stress. Stress has been specified to be a major factor in repressing the functions of the hypothalamus, which in turn, controls the adrenal and thyroid glands, as well as the ovaries. Since these three forms of endocrine glands work together in reproductive hormonal production, faulty ovarian functions cause disruption in the production of estrogen and progesterone, which are believed to contribute to bi-monthly menstrual cycles.

Other reasons for polymenorrhea can stem from malnutrition, hyperactivity of the pituitary gland and chronic pelvic inflammation. There is no specific treatment for polymenorrhea, but changes in lifestyle can dramatically show a difference.

Because menstruating is too frequently happening, anemia is often developed. Changes in the diet can significantly improve energy levels associated with the loss of iron during frequent bleeding. Eating foods rich in iron and calcium can help anemia. Also moderate exercise will aid in strength and muscle ton as well as helping bone health.

Painful Menstrual Bleeding

Having a painful menstrual cycle happens to the majority of women. Usually this is associated with Menorrhagia, or those who have endometriosis. A heavy menstrual period is often known as Dysmenorrhoea. As many as 60 percent of women suffer from painful menstrual bleeding. For at least 10 percent of them, the pain is excruciating.

Dysmenorrhea can be classified as either primary or secondary based on the absence or presence of an underlying cause. Secondary dysmenorrhea is dysmenorrhea which is associated with an existing condition. The most common cause of secondary dysmenorrhea is endometriosis. Other causes include:

- leiomyoma
- adenomyosis
- ovarian cysts
- pelvic congestions
- copper IUD

If there is no structural problem, the pain could likely be a result of abnormal prostaglandin production. This causes the painful muscle and uterine contractions as well as inflammation. Women who experience painful cramping have high levels of the hormone prostaglandin F2 alpha in menstrual blood. The hormone sends the uterus into spasm, and results in cramping.

A “sluggish” liver or blockage in the liver, or blood stagnation or heat can also be a cause of dysmenorrhoea. Hormonal imbalances, bad diet, stress, poor fitness, poor blood flow, candida, bowel toxicity can also be a cause or contributor to dysmenorrhoea.

Scanty Bleeding

Often times a menstrual bleed will cease for a few days after it has slowed down, and then resume again. Most the time this is nothing to worry about as long as it's scant in color. Brown, pink, and orange menstrual scanty bleeding is caused from older blood not entirely getting flushed out of the cervix during the initial menstrual flow.

There are times where sexual arousal will cause the cervix to contract during an orgasm right after a menstrual bleed has ended. If there is trapped old menstrual blood in the cervix, it could very well be triggered by a sexual orgasm.

However an irregular trickle may have a low-grade infection, small polyps, or small intracavity fibroids. Some women will bleed for five to six days, stop for a few days and start bleeding again, this is classified as an irregular trickle.

Sanitary Napkins and Tampons

There are many types of sanitary napkins that can be used during a menstrual period. There is a controversy on whether or not tampons contribute to endometriosis, but this is still in debate. Fiber inside the tampon has also been blamed for causing scar tissue inside the vaginal wall which alters pH balance, and can cause the vagina to be vulnerable to bacterial threats.



There is also the controversial debate on whether or not tampons can cause or contribute to infertility. Since neither debate has been proven, it's hard to say. It is recommended that those who suffer from heavy or painful bleeding stay away from tampons, and use another form of sanitary napkins, or those who tend to get yeast infections.

For women who have heavy bleeding, a tampon may not be the best. This is because excessive flow needs to expel from the cervix. A tampon may absorb some of the bleeding, but also trap more of the blood inside the cervix. This could cause a range of issues such as more clotting, and prolonged bleeding.

When tampons were first marketed years ago, they were made with a super absorbent material. This material acted like a wick, and actually drew the blood and tissue from the inner cavity of the cervix. Within a few months of tampons being on the market, several women developed a life-threatening disease called Toxic Shock Syndrome. The tampons then were taken off the market for further study. What was discovered was that material used to absorb was harboring a dangerous strain of bacteria that resulted in TSS.

Since tampons had become popular among women, they were re-marketed with a safer less absorbent material. The tampons no longer acted like a wick, but as a plug preventing the endometrial tissue from escaping into the vagina during a period. As the cervix contracted, trying to overcome the plugging effect of the tampon and expel the blood and tissue, it forced the endometrial tissue out of the fallopian tubes and into the pelvis.

Once there the hormonal responsive endometrial tissue implanted on the internal organs and continued to grow. From that point on each time a woman had a period and was bleeding from the vagina, she was also experiencing a small amount of internal bleeding as well. This internal bleeding caused scarring of the female organs, painful periods and eventually infertility.

The worldwide use of tampons might explain the growing number of those with endometriosis. It may also explain why this disease is more effecting younger women. When tampons were first marketed they were only supposed to be used by women who had already had children. Over time, women who were sexually active started using them. Eventually even non-sexually active women started using them. Today it is not uncommon for a younger woman who is first experiencing her period to start using them.

The ancient Egyptians invented the first disposable tampons made from softened papyrus. The ancient Greeks invented tampons made from lint wrapped around a small piece of wood, recorded in writing by Hippocrates in the fifth century B.C. Other materials used for the first tampons have included: wool, paper, vegetable fibers, sponges, grass, and later cotton.

In 1929, the modern tampon (with applicator) was first invented and patented by Doctor Earle Haas who wanted to invent a tampon that could be effectively mass produced. Earle Haas filed for his first tampon patent on November 19, 1931. His patent description was for a "catamenial device," derived from the Greek word for monthly. He later trademarked Tampax as the brand-name for his tampon product.

There are alternative ways for a sanitary napkin if a woman should choose not to use a tampon. Here is a list of which alternatives are available, and description.

Moon Cup-	Made from natural gum rubber (latex) and is made of medical grade silicone. Can each hold up to one ounce of your menstrual flow (An average woman's entire monthly flow is from 2 to 4 ounces) They can be worn up to 12 hours and even overnight.
Diva Cup-	Worn low at the base of the vagina and away from the cervix. DivaCup is made of soft silicone that actually softens with body heat. Because of this, the cup forms to the body. Diva cup can be worn for up to 12 hours.
Sea sponge/ or Pearl-	Sea Pearls are completely natural reusable sea sponge tampons containing no Dioxin or synthetic fibers. Sustainably harvested and reusable for three to six months or more, Sea Pearls are easy to use, economical, and earth friendly.
Soft Cup-	Flexible cup that is worn internally, around your cervix. It collects, rather than absorbs menstrual flow. It's hypo-allergenic, latex-free and completely safe when used as directed. Can be worn for up to 12 hours.
Luna Pads-	Designed washable cloth pads feature 2 parts: a leak-resistant Pad Base with wings that fasten around the gusset of your underwear, and an Insert that is secured to the top of the Pad Base with ric-rac bands.
Pads-	Menstrual padding lining in the underwear and captures menstrual blood.

Unlike Tampons, which can be worn for up to two hours, some products above allow a twelve hour ware. Tampons should never be worn at any other time during the menstrual cycle.

Certified Fertility Counselor Course-Session 7- Questions and Answers

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Please be sure to fill out the information above, complete the test and e-mail it back to us at myeggandme@amandabears.com. We will grade your question & answer session and will let you know if we have any questions or concerns.

1. What is considered to be "Normal" bleeding during menstrual bleed?
2. What does menstrual fluid consist of?
3. Explain why women clot during a menstrual cycle, and what is normal clotting?
4. What is anticoagulant?
5. How many women suffer from heavy menstrual bleeding?
6. What is another name for heavy menstrual bleeding?
7. What are the causes of heavy menstrual bleeding?
8. What is considered light menstrual bleeding?
9. What is another name for light menstrual bleeding?
10. With oligomenorrhea menstrual cycles are over 28 days T/F
11. What are the causes of oligomenorrhea?
12. What is hypomenorrhea and what causes it?
13. What is Metrorrhagia?
14. What are the causes of Metrorrhagia?
15. How would one be able to tell from ovulation spotting and Metrorrhagia?
16. What is Polymenorrhea?
17. What are the causes of Polymenorrhea?
18. Who is at risk for Polymenorrhea?
19. What is Dysmenorrhoea?
20. What is menorrhagia?
21. What causes Dysmenorrhoea?
22. What is "scant bleeding"
23. Is scant bleeding a concern?
24. Are tampons a risk?
25. What other types of sanitary napkins are there?
26. What is TSS?