

It is imperative to determine the reason for the abnormal periods. The causes of abnormal periods vary according to the age of the patient. For example, in adolescent women and premenopausal women, it is predominantly a hormonal imbalance. In women in between those ages, it tends to be due to lumps and bumps in the uterus, and in women after menopause, any bleeding is seen as suspicious for cancer (although the majority do not have cancer). After reviewing the normal menstrual cycle, a discussion on how to determine the source of the bleeding will follow, and options for treating the cause will be presented.

What is a normal menstrual cycle?

It is considered normal to have a menstrual period every 24 to 38 days (that is, the time from the first day of one menstrual period to the onset of the next); the average is 28 days. Longer cycles, more than 38 days apart, are common in adolescent and perimenopausal women. In a normal menstrual cycle, a woman loses an average of 2 to 3 tablespoons (35 to 40 milliliters) of blood over four to eight days. Women who lose 5 to 6 tablespoons (about 80 milliliters) of blood or more during their menstrual period are said to have heavy or prolonged menstrual bleeding. Losing a lot of blood during the menstrual period can cause medical problems such as iron deficiency anemia. Obviously, it is not easy or even possible to measure the amount of blood loss, except perhaps in women who use a menstrual cup.

How to tell if a period is too heavy?

As measuring the amount of blood loss is difficult, then other features are used to assess the amount of blood loss. Typically, if heavy, it will have one or more of the followings:

- Soak through a pad or tampon every 1-3 hours on the heaviest days of the period
- Have bleeding for more than seven days
- Need to use both pads and tampons at the same time due to heavy bleeding
- Need to change pads or tampons during the night
- Pass blood clots larger than 1 inch (about 2.5 centimeters)
- Develop an iron deficiency anemia

What testing is recommended in adolescents with abnormal periods?

Although the majority of young women, especially before the age of 19, will bleed because of a lack of maturity of the endocrine system, some may have a clotting disorder, such as a low platelet count or Von Willebrand disease. Thyroid disorders also need to be ruled out. Blood work will usually reveal these abnormalities. A pelvic ultrasound will rule out uterine bumps.

What testing is recommended in reproductive age women with abnormal periods?

Noncancerous growths in the uterus are the most common cause of heavy menstrual bleeding in these women. The most common noncancerous growths are:

Fibroids: hard lumps arising from the muscle of the uterus. They could be small or large in size, and most uterus contain more than 1 fibroid, 4-5 being very common.

Polyps: small, grape-like, soft like your tongue, growths of the lining of the uterus.

Adenomyosis, when the uterine lining tissue grows into the muscular wall of the uterus. It bleeds every month, but the blood cannot escape, and the uterine wall becomes bruised.

Basic blood work (to check for iron deficiency and thyroid dysfunction), and a pelvic ultrasound will clarify the cause. Other tests such as a biopsy, or further blood work, are sometimes necessary. The biopsy is recommended in women over 40, and in women at any age with higher risk than usual of developing endometrial cancer.

Hormone tests are usually not useful, as they fluctuate wildly throughout the day and the cycle and can change from cycle to cycle. Saliva tests are also unreliable, and costly.

What testing is recommended in women after menopause with any bleeding?

The concern in women after menopause is the possibility of an overgrowth of the lining of the uterus (called endometrial hyperplasia, which can be a precursor to uterine cancer), or even uterine cancer. A pelvic ultrasound and endometrial biopsy should be performed without delay, and in certain cases, a D&C (but also using a hysteroscope, to look at the inside of the uterus, just prior to scraping the wall of the uterus), may be required.

What treatments are available for dealing with the problem?

There are several treatments for heavy bleeding. They vary from hormonal and non-hormonal pills, to IUD's and surgery (minimally invasive or a hysterectomy). It is paramount to establish the cause of the bleeding first before undertaking any treatment. It is also important to consider the need to prevent a pregnancy, the desire to have children in the future, and your personal preferences, as long as it is within the accepted treatment for the condition.

Medical Treatment for Heavy or Prolonged Menstrual Bleeding**Nonsteroidal anti-inflammatory drugs (NSAIDs)**

Nonsteroidal anti-inflammatory drugs, such as ibuprofen (brand name: Motrin and Advil), naproxen (brand name: Aleve) and mefenamic acid (brand name: Ponstan), can help reduce menstrual bleeding and menstrual cramps. You can buy some NSAIDs (including ibuprofen) without a prescription.

They have to be taken steadily (no skipping doses) for 3-5 days, depending on the duration of the period. NSAID's reduced the release from the tissues of a chemical substance called prostaglandin (PG), which promotes pain and bleeding.

NSAIDs are not expensive, have few side effects, reduce pain and bleeding, and you need to take them only during your menstrual period. You can take NSAIDs in combination with any of the medical treatments discussed here. They may reduce the amount of bleeding, if taken consistently, by 20-40%.

Antifibrinolytic medicines

Antifibrinolytic medicines can help to slow menstrual bleeding quickly. These medicines work by helping the blood clotting system. Examples include tranexamic acid (brand name: Cyclokapron). The advantages of antifibrinolytic medicines over other medical treatments are that:

- The medicine slows bleeding quickly (within two to three hours)
- You need to take the medicine only a few days each month

- The medicines do not affect your chances of becoming pregnant

Side effects can include headache and muscle cramps or pain. You should not take antifibrinolytic medicines with hormonal birth control. There is controversy regarding a possible increased risk of blood clots, stroke, and heart attack when taken together.

Natural progesterone

There is a natural progesterone (brand name: Prometrium). It comes from plant oils, usually extracted from a very specific type of wild yam that grows in Mexico, or from soybeans. The dose is 200 mg daily, from days 12-25 of the cycle. It can cause sleepiness, so it should be taken at night time. It works well for women who only have a hormonal imbalance as the cause of their bleeding.

Hormonal birth control

Hormonal methods of birth control which may be used to treat heavy menstrual bleeding include the pill, skin patch, vaginal ring, and hormonal intrauterine device (IUD). These treatments reduce bleeding as well as cramps and pain during your period. It might take three months for the bleeding to improve. When you take it every day without a break for 12 weeks or so, it is called continuous dosing. Several brands of birth control pills are packaged with 3 months of pills to make it easier to take the pill like that. The pill contains estrogen and progesterone, and some women should not be on estrogen (such as women with previous breast cancer, over 35 who smoke, migraines with aura, high blood pressure etc.)

Hormonal intrauterine device (Mirena)

This IUD slowly releases the hormone progesterone into the uterus. It contains no estrogen. It works very well to reduce the bleeding, as long as the uterus is not too big, or too distorted by uterine fibroids. It will also prevent pregnancy.

The most common side effect of the hormonal IUD is irregular bleeding; this is usually light bleeding or spotting and it usually improves after the first few months. Hormone side effects such as bloating, mood swings, oily skin, acne and breast tenderness are common at the beginning, but tend to settle down, or they can be treated.

Ulipristal acetate

This is a pill designed to treat abnormal periods caused by fibroids. Side effects are uncommon, but recent reports suggest that it can be rarely associated with liver failure. It is approved for intermittent use, that is, 3 months on, 2 months off.

Other progestins

Progestins can be given by a shot or by a birth control pill (without estrogen). They may be useful in selected cases.

Surgical Treatments for Heavy or Prolonged Menstrual Bleeding

Removing fibroids or polyps: For women who have growths in the uterus, such as polyps or fibroids, a day care surgical procedure to remove them can reduce or end heavy bleeding. Polyps are soft and easily extracted, while fibroids are hard, often multiple and tend to be embedded into the uterine wall, making their removal more difficult or sometimes impossible. Endometrial ablation -Endometrial ablation is a day care surgical treatment that destroys or removes most of the lining of the uterus. This can reduce heavy menstrual bleeding or cause you to stop having menstrual bleeding. It is not a good option for women who might want to become pregnant in the future.

Hysterectomy

Hysterectomy is a procedure that removes the uterus. It is a permanent treatment that cures heavy menstrual bleeding. The ovaries are usually left behind. However, the surgery can have serious complications and may require up to 8 weeks for full recovery.

Which Treatment is Best for Me?

There are many treatments for heavy menstrual bleeding, and it can be difficult to decide which one is right. There are choices, and patient preference is always important. I favor the 'ladder approach', where you start with the least risky or invasive intervention and move up the ladder if it is not working.

If you are planning to become pregnant in the next several months, a nonsteroidal

anti-inflammatory or antifibrinolytic medicine might be a good option

If you would like to have children eventually, but not soon, a hormonal birth control method, such as the pill or the hormonal IUD may be better.

If you have no plans to become pregnant, or have completed your family, you can use any of the medical treatments described above. Hormonal birth control (including the IUD) and antifibrinolytic medicines are probably the most effective medical treatments.

If you have tried one or more medicines and you still have heavy menstrual bleeding, then we move up the ladder and consider a surgical approach. Minimally invasive if feasible. If it doesn't work, then hysterectomy is the last resort.