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Heavy Periods: What Should I Know?

NOGS 20-21 & AMOGS PAC INITIATIVE

VOLUME - 8



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Don't Google... Ask Noogle

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Dear Members,

It gives me immense pleasure to hand over the eighth volume of Patient's Information handouts which is going to be monthly feature. The eighth volume focuses on "MENOPAUSE."

In recent years, patients have increasingly requested the opportunity to participate fully in their medical care. An important part of responding to this is providing educational handouts that inform patients about health problems, describe medical treatments, and promote healthy behaviors. They are useful extension of spoken communications and are also an extension of medical care. Spoken messages are forgotten quickly and so they need to be reinforced with the informative handouts. Educational handouts are an important part of the communication patients receive from health care providers.

This is our small effort to provide our members with these ready handouts for better communication with their patients. The member can print and use them for their patients benefit. We hope that you will find them useful.

I wish to profusely thank the ever enthusiastic, ever ready NOGS Member Dr. Bhakti Gurjar for toiling very hard and putting it up together within a very short span of time. We deeply appreciate her super effort.

Wishing you all a very healthy patient interaction.

Sincerely,

Dr. Vaidehi Marathe

President NOGS 2020-21

Chairperson PAC AMOGS



Message from the President AMOGS...



Hello everyone,

The theme of AMOGS this year is "We for Stree". I would like to thank every AMOGSian who has helped making every woman Safer, Stronger, and Smarter.

I would like to congratulate Dr. Vaidehi Marathe and Team NOGS for this Patient education booklet. I would also like to thank the contributors and the editorial team for their contributions towards this great booklet.

The aim of this booklet is to ensure that you are able to get basic knowledge regarding different areas of women health care. I hope this booklet helps you achieve that and clears all your doubts.

**Dr. Nandita Palshetkar
President
AMOGS.**





INDEX



Sr. No.

Topics

01 What is heavy Menstrual Bleeding?

02 What are tests required ?

03 Polyps

04 Adenomyosis

05 Fibroids

06 Cancer

07 Bleeding Disorders

08 Ovulatory Disorders

09 Iatrogenic causes

10 Other Rare Causes and bleeding in menopausal women

Heavy Periods: What Should I Know?

1. What is heavy menstrual bleeding ?

- Abnormal Uterine Bleeding is the medical term for menstrual periods with abnormally heavy or prolonged bleeding. Although heavy menstrual bleeding is a common concern, most women don't experience blood loss severe enough to be defined as heavy menstrual bleeding. It is said to affect 3% of women, with those aged 40–51 years most likely to present to healthcare services. With heavy menstrual bleeding, you can't do your usual activities when you have your period because you have so much blood loss and cramping. Signs and symptoms of heavy menstrual bleeding may include:
 - Soaking through one or more sanitary pads or tampons every hour for several consecutive hours
 - Needing to use double sanitary protection to control your menstrual flow
 - Needing to wake up to change sanitary protection during the night
 - Bleeding for longer than a week
 - Passing blood clots larger than a quarter
 - Restricting daily activities due to heavy menstrual flow

- Symptoms of anemia, such as tiredness, fatigue or shortness of breath
- Menstrual History
- A menstrual cycle history is a key part of the assessment of a woman with heavy menstrual bleeding. It has the following components:
 - Frequency – average 28 days
 - <24 days Frequent, >38 days Infrequent
 - Duration – average 5 days
 - >8 days Prolonged, <4days shortened
 - Volume – average 40ml menstrual blood loss over course of menses
 - >80ml heavy (Hb and Ferritin affected), <5ml Light
 - Women may describe ‘flooding’ and clots passed
 - Bleeding between periods or irregular vaginal bleeding
 - Any vaginal bleeding after menopause
- If you need to change your tampon or pad after less than 2 hours or you pass clots the size of a quarter or larger, that is heavy bleeding. If you have this type of bleeding, you should see a doctor. Untreated heavy or prolonged bleeding can stop you from living your life to the fullest. It also can cause anemia.

What Are Tests Required?

- Women of reproductive age should have a urine pregnancy test performed to rule out pregnancy related bleeding. Investigations should be tailored to the specific clinical features, but a generic outline would involve a structured approach as discussed below:
- Blood Tests
- Full blood count
- Anaemia tends to present after menstrual blood loss of 120ml.
- Thyroid function test
- If other signs and symptoms of underactive thyroid.
- Other hormone testing
- Not routine but considered if other clinical features e.g. suspicion of Polycystic ovary syndrome.
- Coagulation screen + test for Von Willebrand's
- If suspicion of clotting disorder on history taking.
- Imaging, Histology and Microbiology
- Ultrasound pelvis
- Transvaginal Ultrasound is most clinically useful for assessing the endometrium and ovaries.
- It should be considered if the uterus or a pelvic mass is palpable on examination, or if pharmacological treatment has failed.
- Cervical smear or PAP smear should be done in all women of reproductive age group 3 yearly. It can be repeated earlier if there is a suspicion of precancerous or early cancerous change in the cervix.

- High vaginal and cervical swabs for infection.
- Pipelle endometrial biopsy:
- Indications for biopsy include persistent intermenstrual bleeding, >45 years old, and/or failure of pharmacological treatment.
- Hysteroscopy and endometrial biopsy:
- Typically performed when ultrasound identifies pathology, or is inconclusive.

UTERINE POLYPS

- Uterine polyps attach to your uterus by a large base or a thin stalk and can grow to be several centimeters in size. Irregular menstrual bleeding, bleeding after menopause, excessively heavy menstrual flow or bleeding between periods could signal the presence of uterine polyps. Uterine polyps range in size from a few millimeters — no larger than a sesame seed — to several centimeters — golf-ball-size or larger. They attach to the uterine wall by a large base or a thin stalk.
- You can have one or many uterine polyps. They usually stay contained within your uterus, but occasionally, they slip down through the opening of the uterus (cervix) into your vagina. Uterine polyps most commonly occur in women who are going through or have completed menopause, although younger women can get them, too.
- Symptoms
- Signs and symptoms of uterine polyps include:

- Irregular menstrual bleeding — for example, having frequent, unpredictable periods of variable length and heaviness
- Bleeding between menstrual periods
- Excessively heavy menstrual periods
- Vaginal bleeding after menopause
- Infertility
- Some women have only light bleeding or spotting; others are symptom-free.
- When to see a doctor
- Seek medical care if you have: Vaginal bleeding after menopause,
- Bleeding between menstrual periods, Irregular menstrual bleeding
- Causes
- Hormonal factors appear to play a role. Uterine polyps are estrogen-sensitive, meaning they grow in response to circulating estrogen.
- Risk factors
- Risk factors for developing uterine polyps include:
- Being perimenopausal or postmenopausal

- Having high blood pressure (hypertension)
- Being obese
- Taking tamoxifen, a drug therapy for breast cancer
- Complications
- Uterine polyps might be associated with infertility. If you have uterine polyps and you're unable to have children, removal of the polyps might allow you to become pregnant, but the data are inconclusive.

How are uterine polyps diagnosed?

- Your doctor will ask you about your menstrual history, including how long your periods last and how often you have them. You should mention any unusual symptoms that you are experiencing, such as excessive bleeding or spotting between periods. The doctor will also ask whether you have had any difficulty becoming pregnant.
- The doctor will also perform a gynecological examination and may order additional tests or procedures. Ask your doctor if any treatments such as antibiotics, pain medications, or medication to ease dilation of the cervix are recommended before the procedure.

Additional tests may include the following:

- **Transvaginal ultrasound:** this is a procedure in which a slim handheld device called an ultrasound transducer is inserted in the vagina. The device emits sound waves, which provide an image of the interior of the uterus, including any irregularities that may be present.
- **Sonohysterography:** this is a related procedure that may be performed after the transvaginal ultrasound. A sterile fluid is introduced into the uterus through a thin tube called a catheter. The fluid causes the uterus to expand, providing a clearer image of any growths within the uterine cavity during the ultrasound procedure.
- **Hysteroscopy:** this may be used to either diagnose or treat uterine polyps. During this procedure, a doctor inserts a long, thin tube with a lighted telescope (hysteroscope) through the vagina and cervix into the uterus. The hysteroscope allows the physician to examine the inside of the uterus. Hysteroscopy is sometimes used in combination with surgery to remove the polyps.
- **Endometrial biopsy:** The doctor uses a soft plastic instrument to collect tissue from the inner walls of the uterus. The sample is sent to the laboratory for testing to determine if any abnormalities are present.

Curettage: done in an operating room, this procedure can both diagnose and treat polyps. The doctor uses a long metal instrument called a curette to collect tissue from the inner walls of the uterus. The curette has a small loop on the end that allows the doctor to scrape tissue or polyps. The tissue or polyps that are removed may be sent to the laboratory for testing to determine if cancer cells are present.

Treatment

For uterine polyps, your doctor might recommend:

- **Watchful waiting:** Small polyps without symptoms might resolve on their own. Treatment of small polyps is unnecessary unless you're at risk of uterine cancer.
- **Medication:** Certain hormonal medications, including progestins and gonadotropin-releasing hormone agonists, may lessen symptoms of the polyp. But taking such medications is usually a short-term solution at best — symptoms typically recur once you stop taking the medicine.
- **Surgical removal:** During hysteroscopy, instruments inserted through the hysteroscope — the device your doctor uses to see inside your uterus — make it possible to remove polyps. The removed polyp will likely be sent to a lab for microscopic examination.

Adenomyosis

- Adenomyosis is a condition in which the inner lining of the uterus (the endometrium) breaks through the muscle wall of the uterus (the myometrium). Adenomyosis can cause menstrual cramps, lower abdominal pressure, and bloating before menstrual periods and can result in heavy periods. The condition can be located throughout the entire uterus or localized in one spot.
- Though adenomyosis is considered a benign (not life-threatening) condition, the frequent pain and heavy bleeding associated with it can have a negative impact on a woman's quality of life.
- What Are the Symptoms of Adenomyosis?
- While some women diagnosed with adenomyosis have no symptoms, the disease can cause:
 - Heavy, prolonged menstrual bleeding
 - Severe menstrual cramps

Abdominal pressure and bloating

- Who Gets Adenomyosis?
- Adenomyosis is a common condition. It is most often diagnosed in middle-aged women and women who have had children. Some studies also suggest that women who have had prior uterine surgery may be at risk for adenomyosis.
- Though the cause of adenomyosis isn't known, studies have suggested that various hormones including estrogen, progesterone, prolactin, and follicle stimulating hormone may trigger the condition.
- Diagnosing Adenomyosis
- Until recently, the only definitive way to diagnose adenomyosis was to perform a hysterectomy and examine the uterine tissue under a microscope. However, imaging technology has made it possible for doctors to recognize adenomyosis without surgery. Using MRI or transvaginal ultrasound, doctors can see characteristics of the disease in the uterus.

- If a doctor suspects adenomyosis, the first step is a physical exam. A pelvic exam may reveal an enlarged and tender uterus. An ultrasound can allow a doctor to see the uterus, its lining, and its muscular wall. Though ultrasound cannot definitively diagnose adenomyosis, it can help to rule out other conditions with similar symptoms.
- Another technique sometimes used to help evaluate the symptoms associated with adenomyosis is sonohysterography. In sonohysterography, saline solution is injected through a tiny tube into the uterus as an ultrasound is given.
- MRI (magnetic resonance imaging) can be used to confirm a diagnosis of adenomyosis in women with abnormal uterine bleeding.
- Because the symptoms are so similar, adenomyosis is often misdiagnosed as uterine fibroids. However, the two conditions are not the same. While fibroids are benign tumors growing in or on the uterine wall, adenomyosis is less of a defined mass of cells within the uterine wall.

- An accurate diagnosis is key in choosing the right treatment.

How Is Adenomyosis Treated?

- Treatment for adenomyosis depends in part on your symptoms, their severity, and whether you have completed childbearing. Mild symptoms may be treated with over-the-counter pain medications and the use of a heating pad to ease cramps.
- **Anti-inflammatory medications:** Your doctor may prescribe nonsteroidal anti-inflammatory drugs (NSAIDs) to relieve mild pain associated with adenomyosis. NSAIDs are usually started one to two days before the beginning of your period and continued through the first few of days of your period.
- **Hormone therapy :** Symptoms such as heavy or painful periods can be controlled with hormonal therapies such as a levonorgestrel-releasing IUD (which is inserted into the uterus), aromatase inhibitors, and GnRH analogs.
- **Uterine artery embolization:** In this minimally invasive procedure, which is commonly used to help shrink fibroids, tiny particles are used to block the blood vessels that provide blood flow to the adenomyosis. The particles are guided through a tiny tube inserted by the radiologist into the patient's femoral artery. With blood supply cut off, the adenomyosis shrinks.

- Endometrial ablation: This minimally invasive procedure destroys the lining of the uterus. Endometrial ablation has been found to be effective in relieving symptoms in some patients when adenomyosis hasn't penetrated deeply into the muscle wall of the uterus.

Does Adenomyosis Cause Infertility?

- Because many women who have adenomyosis also have endometriosis, it is difficult to tell precisely what role adenomyosis may play in fertility problems. However, some studies have shown that adenomyosis may contribute to infertility.

Can Adenomyosis Be Cured?

- The only definitive cure for adenomyosis is a hysterectomy, or the removal of the uterus. This is often the treatment of choice for women with significant symptoms.

Uterine Fibroids

Fibroids are growths that develop inside the womb (uterus).

They are usually noncancerous, and frequently present as more than a singular growth. As many as one in five women may have fibroids during their childbearing years, while half of all women have fibroids by the age of 50. The medical term for a fibroid is a uterine myoma or fibromyoma (referred to as myomata or fibromyomata if there are multiple fibroids present). Fibroids can cause problems and require treatment, but they are not usually life-threatening. They often develop within the muscle wall of the womb but can also grow in other areas. The symptoms may be different depending on the site of the fibroid(s).

- Intramural fibroids form within the muscle wall of the womb itself. If they proceed to grow, they cause the womb to increase in size.
- Subserous fibroids grow away from the outer muscle wall of the womb. They can grow on a stalk, which may become twisted.

- Submucous fibroids grow inside the womb under the lining (the endometrium) and can cause heavy bleeding.
- Occasionally, fibroids can develop in the cervix (cervical fibroids). These can enlarge into the vagina.
- A woman may have multiple fibroids of different sizes simultaneously forming in any of these areas.

What are the symptoms of fibroids?

- Very often, women have no symptoms and may not even know that they have fibroids. Symptoms are not necessarily related to the size or number of the fibroids, but usually, the bigger or more numerous they are, the more likely they are to cause problems. The most common symptom caused by fibroids is heavy, prolonged periods . This heavy bleeding may cause some women to become anemic. Fibroids can cause the womb to become bulky and enlarged, causing pressure in the pelvic region. This can result in symptoms such as backache, lower abdominal pain, and the need to urinate more frequently (as a result of pressure on the bladder). Fibroids may cause fertility problems in some women, particularly if the fibroids grow out into the womb and prevent an embryo from implanting.

What tests detect fibroids?

- An internal vaginal examination may often be enough to diagnose small fibroids that are not causing problems. A blood test will show if anemia (caused by heavy bleeding) is present; hormone levels may also be checked at the same time. An ultrasound of the abdomen may be ordered to enable the size and location of the fibroids to be established. This procedure is painless and takes about 15 minutes. Alternatively, a hysteroscopy may be performed. This procedure utilizes a fiber-optic tube that relays images to a video camera inserted into the womb via the cervix, usually under local anesthetic. This allows the doctor to see inside the womb. In some cases, fibroids may be detected by laparoscopy, where a fiber-optic tube is inserted into the abdominal cavity via a small incision in the abdomen.

How are fibroids treated?

- The type of treatment recommended will depend on the symptoms being caused by the fibroids and on whether or not you wish to keep fertility intact. If the main problem is heavy periods, then a hormone treatment such as a contraceptive pill or a progestin-only pill may be prescribed. These treatments are usually given for six months. If you are nearing menopause, hormonal treatment is usually sufficient, as fibroids tend to shrink after menopause.

If hormone treatment is not sufficient to control the symptoms, then surgery may be advised. If you wish to remain fertile and conceive, you may elect to have the fibroids removed. If the fibroids are fairly small, they may be removed using a low-voltage electrified wire loop inserted during a hysteroscopy. This can usually be carried out as day surgery. Large fibroids may need to be removed by myomectomy, which may involve an abdominal incision or may be carried out via laparoscopy. If the fibroids are troublesome and you do not wish to have any more children, a hysterectomy (complete removal of the cervix and womb) may be performed. This can be via an abdominal incision (total abdominal hysterectomy), via the top of the vagina (total vaginal hysterectomy), via laparoscopy or via robotic surgery. Depending on your age, the ovaries may or may not be removed at the same time. If the surgical option is chosen, drug therapy may be given beforehand to shrink the fibroids. These treatments will effectively make you menopausal by switching off the production of hormones by the ovaries.

Without estrogen, the fibroids will shrink. Because of the way these treatments work, they can cause side effects similar to symptoms of menopause, such as hot flashes, vaginal dryness & psychological changes.

A group of drugs known as GnRH analogs such as leuprolide may be used to manage fibroids preoperatively to reduce their size and associated bleeding. These drugs reduce estrogen to levels similar to those seen in women after menopause. Iron tablets, such as ferrous sulfate or ferrous gluconate, will be prescribed if you are anemic.

Cancers

- Abnormal vaginal bleeding is also one of the most frequent symptoms experienced by women when they have gynecologic cancer, such as cervical cancer, endometrial cancer or ovarian cancer. The most common symptom of endometrial cancer is abnormal vaginal bleeding, ranging from a watery and blood-streaked flow to a flow that contains more blood. Vaginal bleeding during or after menopause is often a sign of a problem. If you are concerned about any changes you experience, please talk with your doctor.
- Irregular vaginal bleeding is the most common symptom of invasive cervical cancer. The bleeding may occur between menstrual periods or after sex. Sometimes, it shows as blood-streaked vaginal discharge, which often gets dismissed as spotting.
- Your doctor might recommend testing for endometrial cancer if you have abnormal vaginal bleeding. The most commonly used tests include:

- A test that is done in the office, called endometrial biopsy.
- A test that is done as a day surgery, called hysteroscopy with dilation and curettage.

Both of these tests take a small sample of tissue from the lining of your uterus (the endometrium). A doctor will examine the tissue with a microscope to see if there are signs of cancer. Surgery is usually done to determine how deeply the cancer has invaded the muscle wall of the uterus. At the same time, the cancer can be treated by removing the uterus, ovaries, and fallopian tubes. Surgery is done in an operating room with general anesthesia, and most women stay in the hospital for several days after the surgery.

Surgery can sometimes be done by laparoscopy (through small skin incisions in the abdomen, using a tool with a tiny camera to guide the surgeon). In other cases, surgery requires making a larger skin incision in the abdomen (called a laparotomy). The choice between laparoscopy and laparotomy will depend on your situation, your preferences, and your surgeon's recommendation.

- Surgery involves the following steps:
- The organs in the pelvis and abdomen are examined for signs of cancer.
- The uterus and ovaries are removed (this is called "total hysterectomy and bilateral salpingo-oophorectomy").
- Fluid from the abdomen, as well as any abnormal tissue in the pelvis or abdomen, is evaluated to determine whether the cancer has spread outside of the uterus
- The lymph nodes surrounding the uterus are examined. One of the first places that endometrial cancer spreads to is the lymph nodes. In some cases, the surgeon will do a procedure called "lymphatic mapping." This involves injecting a special substance (often a dye) in order to identify the "sentinel" lymph nodes (the nodes that are most likely to be affected first if the cancer spreads). The surgeon may then remove the sentinel lymph node(s) for testing. Swelling of the legs (lymphedema) affects approximately 5 to 40 percent of women with endometrial cancer following removal of lymph nodes; however, this risk may be lower if the surgeon removes only the sentinel lymph node(s).

If surgery is not possible — If surgery is considered too risky, such as in older women or a woman with other serious medical problems, radiation therapy alone may be recommended.

- In some circumstances, hormonal therapy with intrauterine or systemic progestins may also be considered.
- Cervical cancer is usually diagnosed by a cervical biopsy .It is a minor office procedure involving removal of a small bit of tissue from the cervix. Once diagnosed staging is done through a detailed clinical examination and radiological scans. Depending on the type and stage of your cancer, you may need more than one type of treatment. For the earliest stages of cervical cancer, either surgery or radiation combined with chemotherapy may be used. For later stages, radiation combined with chemotherapy is usually the main treatment. Chemotherapy (by itself) is often used to treat advanced cervical cancer.

Bleeding Disorders

- A bleeding disorder or Coagulopathy is a health problem that makes it difficult for a person to stop bleeding. As many as one in 10 women with heavy menstrual periods may have a bleeding disorder. The most common type of bleeding disorder in women is von Willebrand disease (VWD). If left untreated, bleeding disorders raise your risk for anemia and dangerous bleeding after childbirth.
- The suggestive features in the history include; Heavy Menstrual Bleeding since menarche; history of post-partum haemorrhage, surgical related bleeding or dental related bleeding; easy bruising/epistaxis; bleeding gums; family history of bleeding disorder.

Some common bleeding disorders are:

- **Inherited:** Some bleeding disorders like hemophilia and Von Willebrand disease are inherited, meaning the person is born with the disease.
- **Liver disease:** The coagulation factors are made predominantly in the liver. People with severe liver disease are unable to produce enough coagulation factors and therefore are more likely to experience bleeding.
- **Vitamin K deficiency:** Several of the coagulation factors require vitamin K to function correctly so people who are vitamin K deficient are more likely to have bleeding.

- Anticoagulation therapy: People on anticoagulation therapy (medications that prevent clotting) are at increased risk of bleeding.
- Platelet disorders: If the platelets cannot function properly, they cannot form a proper clot, which may result in bleeding.

Investigations

- These tests may include: a complete blood count (CBC), which measures the amount of red and white blood cells in your body, a platelet aggregation test, which checks how well your platelets clump together, a bleeding time test, which determines how quickly your blood clots to prevent bleeding.

Treatment

- There are many possible treatments for bleeding in a person with a bleeding disorder. The treatment chosen is based on the cause of the bleeding disorder or the location of the bleeding.
- Factor replacement: Patients with hemophilia can infuse themselves with factor replacement products that can treat bleeding episodes. Nowadays, many patients with hemophilia infuse factor replacements on a regular basis to prevent bleeding episodes.

- Desmopressin : It is a replacement product for the hormone vasopressin. Taking desmopressin results in a temporary increase in von Willebrand antigen and factor 8 which may stop bleeding in patients with mild hemophilia A or von Willebrand disease.
- Platelet transfusions: If the platelet count is low or the platelets do not function correctly, a platelet transfusion may be given to prevent/treat bleeding.
- Fresh frozen plasma: Coagulation factors are found in the plasma (liquid component of blood). If a person is missing several different factors, like in liver failure, an infusion of fresh frozen plasma can be given.
- Vitamin K: If a patient is Vitamin K deficient, supplementation can be given.

Ovarian Dysfunction:

This type of bleeding was previously called Dysfunctional uterine bleeding .It is the occurrence of uterine bleeding unrelated to structural abnormalities of the uterus or the endometrial lining. It is a diagnosis of exclusion made after structural causes of bleeding and chronic medical diseases have been ruled out. Other causes of abnormal bleeding must also be ruled out, including pregnancy complications and medications that influence hormonal action or affect clotting. Dysfunctional bleeding occurs more commonly in the first five years after a woman starts menstruating and as she approaches menopause, but it can occur at any time period. The prime cause is anovulation, the absence of ovulation and the orderly secretion of estrogen and progesterone, The two most common causes of ovarian dysfunction are polycystic ovary syndrome and hypothyroidism.

Investigations

- Anovulation is often apparent based on the menstrual history.
- Measuring morning body temperature daily can help determine whether and when ovulation is occurring. However, this method is often inaccurate.
- More accurate methods include Home testing kits, which detect an increase in urinary luteinizing hormone (LH) excretion 24 to 36 hours before ovulation (requiring daily testing for several days around midcycle, usually beginning about or after cycle day 9)
- Pelvic ultrasonography, gives a clear picture of the size of the uterus, its inner lining and the ovaries, apart from ruling out any mass lesions.
- Sometimes Hysteroscopy with scrapping of inner uterine lining (endometrium) and viewing it under a microscope are needed to confirm the diagnosis.
- When considering management options, discuss with the patient and consider the impact on her fertility. The aim of management is to improve the woman's quality of life, rather than a specific reduction in the volume of blood she loses.

Pharmacological

- Levonorgestral-releasing intrauterine system (LNG-IUS): Also acts as a contraceptive. It is licensed for 5 years treatment.
- Thins endometrium and can shrink fibroids.
- Tranexamic acid, mefanamic acid or combined oral contraceptive pill:
 - The choice is dependant on woman's wishes for fertility.
 - Tranexamic acid is taken only during menses to reduce bleeding, no effect on fertility.
 - Mefanamic acid is an Non Steroidal Anti Inflammatory Drug, so also offers analgesia for dysmenorrhoea, taken only during menses and has no effect on fertility.
- Progesterone only: oral norethisterone (Taken day 5-26 of cycle), depo or implant:
 - Oral norethisterone does not work as a contraceptive when taken in this manner, therefore other contraceptive methods should be applied.
 - Depo and implant progesterone are long active reversible contraceptives.

Surgical

- There are two main surgical treatment options for heavy menstrual bleeding; (i) Endometrial ablation and (ii)

Hysterectomy

- Endometrial ablation is where the endometrial lining of the uterus is obliterated. It is suitable for women who no longer wish to conceive (although they will need to continue using contraception), and can reduce heavy menstrual bleeding by up to 80%. Ablation can be performed in the outpatient setting with local anaesthetic.
- The only definitive treatment however is hysterectomy. It offers amenorrhoea and an end to fertility. There are two main types performed:
 - Subtotal (partial) – removal of uterus, but not cervix.
 - Total – removal of cervix with uterus.
- In both cases, the ovaries are not removed (unless abnormal). Hysterectomy can be performed through an abdominal incision, via the vagina, by laparoscopy or by robotic surgery.

Iatrogenic Causes

- Iatrogenic causes relate to illness caused by medical examination or treatment. Iatrogenic causes of Heavy menstrual bleeding include IntraUterine Contraceptive Devices (IUD) like Copper T, steroid hormones, chemotherapy agents, and medications (eg, anticoagulants).

Consider the following:

- IUDs can cause increased menstrual bleeding and cramping due to local irritation effects.
- Steroid hormones and chemotherapy agents disrupt the normal menstrual cycle, which is restored easily upon cessation of the products.
- Anticoagulants decrease clotting factors needed to cease any normal blood flow, including menses. This type of heavy bleeding also is easily reversible. Girls and women who use hormonal birth control (eg, pills, ring, patch) may experience "breakthrough" bleeding between periods. If this occurs during the first few months, it may be due to changes in the lining of the uterus.

- If it persists for more than a few months, evaluation may be needed and/or a different birth control pill may be recommended. Initially, women using injectable contraception often experience irregular bleeding; over time, bleeding stops occurring in such women. Irregular bleeding is common in women using the contraceptive implant. In women using progestin-releasing intrauterine devices (IUDs), bleeding is often irregular at first. Over time, bleeding becomes lighter; long-term, such women often experience scant bleeding, spotting, or no bleeding.
- Breakthrough bleeding can also happen if a hormonal birth control method is forgotten or taken late. In this situation, there is a risk that the woman could become pregnant if she has sex. An alternate or "back-up" form of birth control (eg, condoms) is recommended if the pill/patch/shot is not taken on time.

Other Rare Causes and Bleeding In Menopausal Women

Apart from the common causes of heavy menstrual bleeding mentioned previously there are some other less commonly discussed causes like retroversion of the uterus, Infection or inflammation of the cervix or endometrium and pelvic inflammatory disease. Retroversion of uterus does not need any treatment. Infections of the genital tract can be confirmed by checking for specific organisms via culture and sensitivity tests. These are simple tests which are carried out in outpatient department at the time gynecological exam. Specific antibiotic medications according to the test reports can cure the infections.

Medical illnesses such as hypothyroidism, liver disease, or chronic renal disease can sometimes lead to heavy menstrual bleeding. Treatment requires a multidisciplinary approach involving the other treating physicians.

Women in the menopausal transition

- Before menstrual periods end, a woman passes through a period called the menopausal transition or perimenopause. During the menopausal transition, the timing of periods begins to change as ovulation becomes less regular. While ovaries in perimenopausal women continue to make estrogen, progesterone secretion declines. These hormonal changes can cause the endometrium to grow and produce excess tissue, increasing the chances that polyps or endometrial hyperplasia (thickened lining of the uterus that can progress to cancer) will develop and potentially cause abnormal bleeding. The menopausal transition is a time when women are more likely to experience abnormal uterine bleeding.
- Women in the menopausal transition are also at risk for other conditions that cause abnormal bleeding, including cancer, infection, and body-wide (systemic) illnesses. Further evaluation is needed in women with persistent irregular menstrual cycles or an episode of profuse bleeding.

- Women in the menopausal transition still ovulate some of the time and can become pregnant; pregnancy itself can cause abnormal bleeding. In addition, women in perimenopause may use hormonal birth control medications, which can cause breakthrough bleeding.
- Menopausal women who take hormone therapy may experience cyclical bleeding. Any other bleeding that occurs during menopause is abnormal and should be investigated. Causes of abnormal bleeding during menopause include:
 - Atrophy or excessive thinning of the tissue lining the vagina and uterus, caused by low hormone levels.
 - Cancer or precancerous changes (hyperplasia) of the uterine lining (endometrium).
 - Polyps or fibroids.
 - Infection of the uterus.
 - Use of blood thinners or anticoagulants.