ABNORMAL UTERINE BLEEDING

These materials are for your general information and are not a substitute for medical advice. You should contact a physician or other healthcare provider with any questions about your health, treatment, or care.

INTRODUCTION — Under normal circumstances, a woman's uterus sheds a limited amount of blood during each menstrual period. Bleeding that occurs between menstrual periods, or excessive bleeding that occurs during menstruation, is generally considered abnormal uterine bleeding. Once a woman enters menopause and menstrual cycles have ended, any bleeding, other than the small amounts that can occur in women on hormone replacement therapy, is considered abnormal.

Abnormal uterine bleeding can be caused by many different conditions. A history and physical examination are important first steps in determining the cause.

Initial assessment — While taking a woman's medical history, her doctor assesses a number of factors that can help identify the cause of abnormal bleeding. These include: the duration and quantity of the bleeding; factors that seem to bring the bleeding on; symptoms that occur along with the bleeding such as pain, fever, or vaginal odor; the relationship between bleeding and sexual relations; whether there is a personal or family history of bleeding disorders; the woman's medical history and medications she is taking; and whether the woman has experienced a weight change that could be related to an eating disorder, stress, excessive exercise, or chronic illness.

The doctor will perform a general physical exam to evaluate the woman's overall health, and a pelvic examination to confirm that the bleeding is from the uterus and not from another site like the external genitals or the rectum. During the pelvic exam, the doctor will look for any obvious lesions (cuts, sores, or tumors) and will examine the size and shape of the uterus. A Pap smear will be obtained to examine the cells of the cervix (the lower end of the uterus, where it opens to the vagina) and to look for signs of cervical bleeding.

CAUSES OF ABNORMAL UTERINE BLEEDING — While most conditions that cause abnormal uterine bleeding can occur at any age, some are more likely to occur at particular times in a woman's life.

Causes of abnormal uterine bleeding in premenopausal women — Premenopausal women include young girls who have not yet begun menstruating, women in their reproductive years, and women in perimenopause or those who have begun the hormonal changes that eventually lead to menopause.

Bleeding before the onset of menstruation — Bleeding in girls who have not yet begun to menstruate is always abnormal and can be caused by trauma, the presence of a foreign body, irritation of the genital area, or urinary tract problems. Bleeding can also occur as a result of sexual abuse.

Adolescents — Many girls have episodes of irregular bleeding during the first few years after their periods begin and until a normal hormonal cycle and regular ovulation is established. If bleeding persists beyond this time, or if the bleeding is heavy, further evaluation is indicated.

Girls and women who use oral contraceptives may experience "breakthrough" bleeding between periods. If this occurs during the first months of oral contraceptive use, it may be due to changes in the lining of the uterus. If it persists for more than several months, a different oral contraceptive may be prescribed. Breakthrough bleeding can also happen if the oral contraceptive is not taken regularly. If this occurs, the breakthrough bleeding may be an indication that the pill is not effective. Additional contraception may be necessary until the oral contraceptives are taken on a regular schedule and the breakthrough bleeding stops. If a woman experiences persistent breakthrough bleeding, further evaluation is indicated.

Abnormal bleeding in this age group can also be caused by pregnancy, bleeding disorders, some medical illnesses, and infection.

Premenopausal women — Many different conditions can cause abnormal bleeding in women between adolescence and menopause. Abrupt changes in hormone levels at the time of expected ovulation can cause vaginal spotting, or small amounts of bleeding. As noted above, breakthrough bleeding can occur in women who use oral contraceptives.

In women who don't ovulate (anovulatory women), irregular changes in hormone levels can cause bleeding to occur intermittently and in varying amounts. Although anovulation is most common when periods first begin and during perimenopause, it can occur at any time during the reproductive years.

Among women who ovulate normally, some experience excessive blood loss during their periods or bleed between periods. The most common causes of such bleeding are uterine fibroids or polyps. These irregular growths and benign tumors are composed of uterine tissue that distort the structure of the uterus and lead to abnormal uterine bleeding. Fibroids and polyps can also occur in anovulatory women.

Other causes of abnormal uterine bleeding in premenopausal women include:

- Pregnancy
- Cancer of the endometrium (lining of the uterus) or benign precancerous endometrial lesions
- Endometritis or inflammation of the endometrium
- A pelvic or vaginal infection
- Clotting disorders such as von Willebrand disease, platelet abnormalities, or problems with clotting factors

- Some systemic illnesses such as hypothyroidism, liver disease, or chronic renal disease

Perimenopausal women — Before menstruation stops completely and menopause begins, a woman passes through a period called perimenopause. During perimenopause, normal hormonal cycling begins to change and ovulation may be inconsistent. While estrogen secretion continues, progesterone secretion declines. These hormonal changes can cause the endometrium to proliferate or produce excess tissue, and increase the chance that polyps or fibroids that cause abnormal bleeding will develop. Women in perimenopause are also at risk for other conditions that cause abnormal bleeding, including cancer, infection, and systemic illnesses. Further evaluation is indicated if a woman experiences persistent irregular menstrual cycles or an episode of profuse bleeding.

In addition, because women in perimenopause ovulate some of the time, pregnancy is still possible and can be a cause of abnormal bleeding. And, since many women in perimenopause remain on oral contraceptive agents, breakthrough bleeding can occur as well.

Causes of abnormal bleeding in menopausal women — A number of conditions can cause abnormal bleeding once a woman's periods have stopped and menopause has begun. Many women are on hormone replacement therapy at some point during menopause and may experience cyclical bleeding. Any other bleeding that occurs during menopause is abnormal and should be investigated. Some of the most common causes of abnormal bleeding during menopause include:

- Atrophy or thinning of the tissue lining the vagina and uterus
- Cancer of the uterine lining or endometrium
- Polyps or fibroids
- Endometrial hyperplasia or the rapid growth of extra endometrial tissue
- Infection of the uterus
- Use of blood thinners or anticoagulants
- Side effects of radiation therapy

EVALUATING ABNORMAL BLEEDING — In addition to a careful history and physical examination, laboratory tests and diagnostic procedures may be used to identify the cause of abnormal bleeding.

Lab tests — In premenopausal women, a pregnancy test is usually performed. If there is a vaginal discharge suggesting the presence of an infection, a cervical culture may be performed. Lab tests may also be conducted to determine whether there are problems with blood clotting or other systemic conditions, such as hypothyroidism, liver disease, or kidney problems.

Tests to determine ovulatory status — Because hormonal irregularities can contribute to abnormal uterine bleeding, tests may be performed in premenopausal women to determine whether they ovulate (produce an egg) during each monthly cycle. For example, a woman may be asked to record when her periods begin and end for several months and to note any premenstrual changes, like cramps or breast tenderness, that occur. She may also be asked to record her temperature with a special thermometer that is sensitive to slight changes in body temperature. Progesterone, which is released at the time of ovulation, causes a slight increase in temperature, and regular monitoring will detect whether this occurs on a cyclical basis. In addition, her progesterone level may be measured with a blood test.

Endometrial assessment — Tests that assess the endometrium may be performed to rule out endometrial cancer and structural abnormalities such as uterine fibroids or polyps. Such tests include:

Endometrial biopsy — An endometrial biopsy is often performed in women over age 35 to rule out endometrial cancer or unusual endometrial growths. A biopsy may also be performed in women younger than 35 if they have risk factors for endometrial cancer. Risks include obesity, chronic anovulation, history of breast cancer, tamoxifen use or a family history of breast cancer or some other cancers. During the biopsy, a thin instrument is inserted through the vagina into the uterus and is used to obtain a small sample of endometrial tissue. The biopsy can be performed in a physician's office without anesthesia. Because only a small portion of the endometrium is sampled, the biopsy may miss some causes of bleeding and other tests may be necessary.

Transvaginal ultrasound — An ultrasound uses sound waves to assess an organ's physical shape and structure. In a transvaginal ultrasound, a small ultrasound probe is inserted into the vagina so that it is closer to the uterus and can provide a clearer image of uterine contents. A transvaginal ultrasound is a minimally invasive way to determine whether abnormal uterine structures, or signs of excessive endometrial growth, are present. However, because it cannot distinguish between different types of structural abnormalities, further testing may be necessary if any are found.

Saline infusion sonography or sonohysterography — In this test, a transvaginal ultrasound is performed after sterile saline is instilled into the uterus. This procedure yields a better picture of the inside of the uterus, and small lesions can be more readily detected. However, because tissue samples cannot be obtained during the procedure, a final diagnosis is not always possible and additional evaluation through hysteroscopy or dilation and curettage (D&C) may be necessary.

Magnetic resonance imaging (MRI) — MRI is non-invasive and uses a magnetic field and radio waves to visualize organs. It is sometimes used to determine the presence of fibroids or other structural abnormalities.

Hysteroscopy — In a hysteroscopy, a small scope is threaded through the cervix and into the uterus. Air or fluid is injected to expand the uterus and to allow better visualization of the uterine contents. Tissue samples may be obtained from targeted areas. Sedation with regional anesthesia or general anesthesia is used to minimize discomfort during the procedure.

Dilation and curettage (DC) — In a D&C, the cervix or opening of the uterus is dilated, and instruments are inserted and used to remove endometrial or uterine tissue. A D&C is one of the more invasive procedures used to assess the endometrium, and usually requires anesthesia. It may be used to supplement the tissue obtained with an endometrial biopsy. It can sometimes be used as a treatment for prolonged or excessive bleeding that is due to hormonal changes and that is unresponsive to other treatments.

TREATMENT OF ABNORMAL BLEEDING — The treatment of abnormal bleeding is targeted toward the underlying cause.

Oral contraceptives — Oral contraceptives are often used to treat uterine bleeding that is due to hormonal changes or hormonal irregularities. Oral contraceptives or intrauterine contraceptive devices that secrete progestin, may be used in anovulatory women to establish regular bleeding cycles and prevent excessive growth of the endometrium. In ovulating women, they may be used to treat excessive menstrual blood loss. Nonsteroidal anti-inflammatory drugs (NSAIDS) may also be helpful in reducing blood loss in these women. During perimenopause, oral contraceptives or other hormonal therapy may be used to regulate menstruation and prevent excessive growth of the endometrium.

Surgery — Surgery may be necessary to remove structural lesions such as polyps or fibroids.

Bleeding due to endometrial cancer, systemic diseases, clotting disorders, or infection require treatment targeted to the specific cause.

WHERE TO GET MORE INFORMATION — A doctor is the best resource for finding out important information related to your particular case. Because every patient is different, it is important that your situation is evaluated by someone who knows you as a whole person.