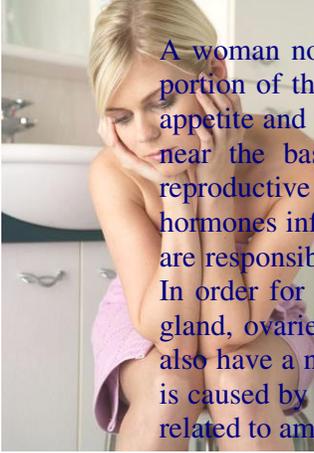


Amenorrhea

Absence of Menses among women



A woman normally menstruates every 23 to 35 days. The cycle is regulated by the portion of the brain called the hypothalamus, which also controls body temperature, appetite and blood pressure. The hypothalamus stimulates the pituitary gland (located near the base of the brain) to release two hormones that regulate the female reproductive cycle: luteinizing hormone and follicle-stimulating hormone. These hormones influence the production of the hormones estrogen and progesterone, which are responsible for cyclic changes in the lining of the uterus, including menstruation. In order for a woman to have regular menstrual cycles, her hypothalamus, pituitary gland, ovaries and uterus must be functioning properly. Her cervix and vagina must also have a normal anatomy for menstrual blood to pass through. Amenorrhea rarely is caused by a life-threatening condition. In most instances, symptoms and conditions related to amenorrhea are reversible and treatable.

What is amenorrhea? Absence of menstruation is known as Amenorrhea. Or in other words, Amenorrhea is a menstrual condition characterized by absent menstrual periods for more than three monthly menstrual cycles.

Types of amenorrhea: Amenorrhea may be classified as primary or secondary.

Primary amenorrhea develops by age of 16 years. Or we can say that there are no menstrual periods by age of 16 years in case of primary amenorrhea.

Secondary amenorrhea develops in those women who are affected with primary amenorrhea. If a woman has no menstrual periods, pregnancy may be first reason. Due to some physical cause and usually of later onset; a condition in which menstrual periods which were at one time normal and regular become increasing abnormal and irregular or absent.

Symptoms of Amenorrhea: The main symptom of this disease is the absence of menstrual periods. Other symptoms of Amenorrhea are headache, change in breast size, discharge from the breast, vaginal dryness, hair loss, and increase in facial hair or vision changes.

Causes: Amenorrhea can occur due to a number of reasons. Some are part of the normal course of a woman's life, while others may be a side effect of medications or a sign of a medical problem.

Natural amenorrhea: During the normal course of her life, a woman may experience amenorrhea for natural reasons, such as:

- Pregnancy
- Breast-feeding
- Menopause
- Premature ovarian failure (menopause before age 40)
- Hysterectomy (surgical removal of the uterus)
- Stopping birth control pills
- Use of a long-acting progesterone, such as Depo-Provera, for birth control
- Tumors of the pituitary gland, especially prolactinomas
- Polycystic ovary disease, a condition that causes abnormal levels of estrogen, luteinizing hormone and other hormones
- Endocrine disorders such as Cushing's syndrome, in which there are very high levels of cortisol, an adrenal hormone, or hyperthyroidism, abnormally high levels of thyroid hormone
- Emotional or physical stress
- Rapid weight loss
- Obesity
- Frequent strenuous exercise
- Chronic (long-term) illness, such as colitis, kidney failure or cystic fibrosis
- Chemotherapy for cancer
- Cysts or tumors in the ovaries

Some other causes of amenorrhea in detail: There are so many reasons for irregular menstrual periods. Amenorrhea is a serious health problem of women. Some possible causes of amenorrhea, include the following:



- **Pregnancy:** Females no longer ovulate when they are pregnant, thus, menstruation ceases temporarily.
- **Ovulation abnormality:** Ovulation abnormalities are usually the cause of very irregular or frequently missed menstrual periods.
- **Birth defect, anatomical abnormality, or other medical condition:** If a young woman has not started to menstruate by the age of 16, a birth defect, anatomical abnormality, or other medical condition may be suspected.
- **Problems with the hypothalamus:** Hypothalamus is the area in brain that regulates menstrual periods. Eating disorders, more exercise and psychological stress can be affected the hypothalamus.
- **Chromosomal abnormalities:** sometimes chromosomal abnormalities can be caused absence of menstruation. Chronic illness also the cause of amenorrhea.
- **Eating disorder:** Females with anorexia nervosa (or simply anorexia) and/or bulimia nervosa (or simply bulimia) often experience amenorrhea as a result of maintaining a body weight that would be too low to sustain a pregnancy. As a result, as a form of protection for the body, the reproductive system "shuts down" because it is severely malnourished.
- **Over-exercise or strenuous exercise:** Many young female athletes in training experience absent menstrual cycles due to low body fat content.
- **Thyroid disorder:** In many cases, an under-active thyroid gland (a condition called hypothyroidism in which the thyroid gland is producing insufficient amounts of the thyroid hormone) or an overactive thyroid gland (a condition called hyperthyroidism in which the thyroid gland secretes too much thyroid

hormone - resulting in too much thyroid hormone in the bloodstream and over-activity of the body's metabolism) is responsible for the absent menstrual cycles.

- **Obesity** : Females who are obese often experience amenorrhea as a result of excess fat cells interfering with the process of ovulation.
- **Contraceptives**: Some women who take birth control pills may not have periods. When oral contraceptives are stopped, it may take three to six months to resume regular ovulation and menstruation. Contraceptives that are injected or implanted also may cause amenorrhea, as can some types of intrauterine devices.

Medications: Certain medications can cause menstrual periods to stop, including some types of:

- Antipsychotics
- Cancer chemotherapy
- Antidepressants
- Blood pressure drugs

Lifestyle factors: As in a number of other medical conditions, a number of life style factors may also be responsible, such as:

- **Stress**. Mental stress can temporarily alter the functioning of your hypothalamus — an area of your brain that controls the hormones that regulate your menstrual cycle. Ovulation and menstruation may stop as a result. Regular menstrual periods usually resume after your stress decreases.
- **Low body weight**. Excessively low body weight interrupts many hormonal functions in your body, potentially halting ovulation. Women who have an eating disorder, such as anorexia or bulimia, often stop having periods because of these abnormal hormonal changes.
- **Excessive exercise**. Women who participate in sports that require rigorous training, such as ballet, long-distance running or gymnastics, may find their menstrual cycle interrupted. Several factors combine to contribute to the loss of periods in athletes, including low body fat, stress and high energy expenditure.

Hormonal imbalance: Many types of medical problems can cause hormonal imbalance, including:

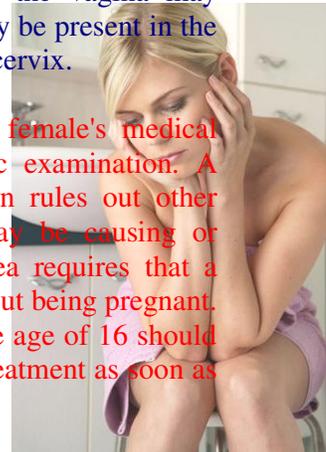
- **Polycystic ovary syndrome (PCOS)**. PCOS causes relatively high and sustained levels of hormones, rather than the fluctuating levels seen in the normal menstrual cycle.
- **Thyroid malfunction**. An overactive (hyperthyroidism) or underactive (hypothyroidism) thyroid gland can cause menstrual irregularities, including amenorrhea.
- **Pituitary tumor**. A noncancerous (benign) tumor in your pituitary gland can interfere with the hormonal regulation of menstruation.

- Premature menopause. Menopause usually occurs between ages 45 and 55. In some women, the ovarian supply of eggs diminishes before age 40, and menstruation stops.

Structural problems: Problems with the sexual organs themselves also can cause amenorrhea. Examples include:

- Uterine scarring. Asherman's syndrome, a condition in which scar tissue builds up in the lining of the uterus, can sometimes occur after a dilation and curettage (D&C), cesarean section or treatment for uterine fibroids. Uterine scarring prevents the normal buildup and shedding of the uterine lining.
- Lack of reproductive organs. Sometimes problems arise during fetal development that lead to a girl being born without some major part of her reproductive system, such as her uterus, cervix or vagina. Because her reproductive system didn't develop normally, she won't have menstrual cycles.
- Structural abnormality of the vagina. An obstruction of the vagina may prevent visible menstrual bleeding. A membrane or wall may be present in the vagina that blocks the outflow of blood from the uterus and cervix.

Diagnosis: Diagnosis begins with a gynaecologist evaluating a female's medical history and a complete physical examination including a pelvic examination. A diagnosis of amenorrhea can only be certain when the physician rules out other menstrual disorders, medical conditions, or medications that may be causing or aggravating the condition. In addition, a diagnosis of amenorrhea requires that a female has missed at least three consecutive menstrual cycles, without being pregnant. Young women who have not had their first menstrual period by the age of 16 should be evaluated promptly, as making an early diagnosis and starting treatment as soon as possible is very important. To diagnose the doctor may ask about:



- The date of last menstrual period;
- Whether the patient is sexually active;
- The birth control methods used;
- The pregnancy history;
- The eating habits, rapid weight changes, obesity or extreme underweight;
- Typical monthly menstrual patterns (regular cycles or irregular cycles);
- The age when the patient's mother entered menopause (many mothers and daughters enter menopause at about the same age);
- The amount of stress in life, and how the patient deals with it;
- Any exercise regimen;
- The types of medications the patient has been taking; etc.

If the doctor is concerned about a specific cause of amenorrhea, such as a hormonal abnormality, he or she will ask additional questions about specific hormone-related symptoms, such as acne, increased body hair, extreme sensitivity to cold temperatures, dry skin, constipation, hair loss or unusual breast secretions. If you are an athlete, especially a runner, your doctor will ask you to describe your training program, particularly if your body fat is below 22 percent or if your weight is less than 80 percent of the ideal.

Next, the doctor will review the medical history and do a general physical examination, followed by a thorough pelvic exam. Once the doctor has determined that the patient is not pregnant, he will try to identify the underlying cause of the absent periods. In many cases, this can be done with the following simple tests:

- **Blood and urine tests:** These can detect imbalances of female hormones caused by problems with the pituitary gland or ovaries. If problems are found, additional tests can be done to check whether the levels of thyroid and adrenal hormones are normal.
- **Pelvic ultrasound:** This painless test uses sound waves to look for problems in the structure of the uterus and ovaries.
- **Progesterone challenge test:** The doctor may treat the patient with the hormone progesterone for a few days to see whether this causes a menstrual period. If menstrual bleeding occurs, the amenorrhea is probably related to a condition called an ovulation, which means the ovaries are not releasing a mature egg in the middle of the menstrual cycle. If bleeding does not occur, the doctor will order blood tests to check the levels of follicle-stimulating hormone. These levels can help to determine whether the problem is in the ovaries or hypothalamus.

If these tests do not pinpoint the cause of the missed periods, additional specialized testing may be necessary. Diagnosing amenorrhea sometimes can be fairly complicated, since there are so many potential causes

Expected Duration: In many teenagers with primary amenorrhea, puberty is late, but there is no permanent problem. For women with secondary amenorrhea, how long amenorrhea lasts depends on the cause. For example, pregnancy will stop a woman's menstrual periods until after childbirth, while a woman who stops taking birth control pills may not have a period for three months to a full year. Emotional or physical stress may block the release of luteinizing hormone, causing amenorrhea that lasts for as long as the source of stress remains. Rapid weight loss or gain, medications and chronic illness also can cause a woman to miss one or more periods. Amenorrhea is permanent after menopause begins or after hysterectomy.

When to seek medical advice or see a doctor: You should contact your doctor if you have reached your 14th birthday and have not started to develop breasts or pubic hair, or if you have reached your 16th birthday and have not had your first menstrual period.

If you are sexually active, call your doctor if you miss a period, since you will need to have a pregnancy test. If you are not sexually active, see your doctor if you have missed three consecutive menstrual periods, or if your periods are irregular.

Treatment for amenorrhea: Specific treatment for amenorrhea will be determined by the physician based on:

- Patient's age, overall health, and medical history;
- Extent of the condition;

- Cause of the condition (primary or secondary);
- The tolerance for specific medications, procedures, or therapies;
- Expectations for the course of the condition;
- Patient's opinion or preference etc.

Treatment for amenorrhea may include:

- Progesterone supplements (hormone treatment);
- Oral contraceptives (ovulation inhibitors);
- Dietary modifications (to include increased caloric and fat intake);
- In most cases, physicians will induce menstruation in non-pregnant females who have missed two or more consecutive menstrual periods, because of the danger posed to the uterus if the non-fertilized egg and endometrium lining are not expelled. Without this monthly expulsion, the risk of uterine cancer increases.

Prevention: In many cases, teenage girls can help to prevent primary amenorrhea by following a sensible exercise program and by maintaining a normal weight for their height and age. Primary amenorrhea caused by anatomic abnormalities of the reproductive tract cannot be prevented.

To prevent secondary amenorrhea that is related to diet, over-exercise or stress, you can take the following steps:

- Eat a low-fat diet that meets your recommended daily nutritional needs.
- Exercise moderately, but not excessively, to maintain an ideal body weight and muscle tone.
- Find healthy outlets for emotional stress and daily conflicts.
- Balance work, recreation and rest.
- Avoid excessive alcohol consumption and cigarette smoking.



Amenorrhea and Ayurveda

According to Ayurveda, in this disease Vata dosha is the major cause, Pitta dosha is the minor cause whereas Kapha dosha is active to but in lower percentage.

Pathogenesis: In Ayurveda it is believed that this ailment is due to the aggravation of the three doshas or the body energies. In the female body, lower pelvis or the seat of Apana Vata that is responsible for the elimination of menstrual blood, stool, urine and reproductive fluids. Due to anxiety and stress Apana Vata increases at the onset of menstruation. There are situations to where aggravated Vata causes accumulation of toxins in minute channels, which carry the menstrual blood and blockage of these channels causes Amenorrhea or Dysmenorrhea.

Treatment: The medical treatment given to women in this ailment is as follows:

- Rajapravartni Vati
- Nastatpushantak rasa
- There are few remedies that are beneficial for curing this ailment:

- Take 2 cloves of crushed Garlic twice a day.
- Mix one teaspoon of Aloe Vera with a pinch of black pepper or cinnamon. Take twice a day. This helps to reduce the cramps.
- Take mild laxatives like Triphala for about two days before the scheduled start of menstruation. Massage of the lower abdomen with warm sesame oil for 10 to 15 minutes, followed by application of hot fomentation (such as a hot water bottle) while resting can soothe pain.
- Although the inclination may be to take complete rest, remaining active and taking regular exercise is beneficial.

Recipes: Add one teaspoon of cumin seeds to 2 cups of water and simmer over a moderate heat until the mixture reduces to half. Sieve, add 1 table spoon Jaggery, also called Gur, (if you can get) or raw cane sugar and drink.

Dosage: Take this decoction twice daily for 2-3 days from the start of the menstrual cycle. Regular use with each successive cycle helps reduce the severity of symptoms.

Panchakarma

- Medicated diet must be preferred especially 7 days before the menstrual cycle starts.
- Deep- fried, greasy, sour food, beans and food that produce gas and constipation etc. should be totally avoided.
- Very cold / frozen foods as well as vegetables such as potatoes, mushrooms, peas, broccoli and cauliflower must be kept away from the diet.
- Vegetables like squash, zucchini, and pumpkin are advisable to eat. Fresh fruits may be taken.
- Foods may be garnished with spices like cumin, black pepper, cloves, coriander, and mint.
- Sedentary life must be avoided and light exercise is recommended.
- Walking is good for alleviating Vata.

(Ref: & Sources : Health systems Virginia / American college of obstetricians / womens health clinic dot com spark people dot com and Mayo Clinic dot com)



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