Menstrual Health

Why Might Menses Begin Earlier Than Expected?

The timing of the onset of menses is controlled by the brain signaling the release of hormones (ie, follicle-stimulating hormone and luteinizing hormone) to the ovaries. The ovaries are prompted to produce multiple follicles, each containing an egg that releases estrogen and some progesterone. Estrogen will prompt the lining of the uterus to grow. Once the follicles produce enough estrogen, one dominant follicle will release an egg (ovulation).

Ovulation is the main trigger for menstrual bleeding when the follicle becomes a corpus luteum (a temporary formation of cells arising at ovulation) whose role is to secrete progesterone directing the build-up of the uterine lining. If fertilization of the egg occurs, it will try to implant in the nutrient-rich uterine endometrial lining and start to grow. Without fertilization, the corpus luteum dies, ceasing to produce progesterone. It is this rise and fall of progesterone that triggers menstruation. Anything that disrupts ovulation may cause the period to be early (or late).

The decrease in menarcheal age — which is now around 12 years — can be explained by environmental factors such as nutritional status, particularly obesity as well as genetic factors. Early menarche is usually defined as menarche as before age 12 years, most commonly at 10 or 11 years.

Other Factors Known to Impact Menstrual Cycle Regularity

- **Stress:** Can disrupt the timing of ovulation. More often, it causes a delay or even a skipped cycle.

- **Perimenopause:** A diminishing supply of poorer quality eggs don't respond as well to hormone signals making periods unpredictable — shorter cycle length or skipped cycle. Sometimes the bleeding is delayed or can be heavier and longer than it used to be.

- **Birth control:**
  - The most common cause of unscheduled bleeding is missing a dose of an oral contraceptive.
  - Unscheduled bleeding with progestin-only methods (depo-medroxyprogesterone injection, arm implant, and IUD) has more to do with thinning of the uterine lining. With progesterone as the dominant hormone, the uterine lining doesn't build up sufficiently to cause bleeding.
  - The copper IUD, which doesn't have any hormones, can cause unpredictable bleeding in the first 3-6 months of use while the body adjusts.

- **Emergency contraception:** These pills work by delaying ovulation so the lining is not preserved.

- **Sexually transmitted infections** (STIs), especially chlamydia, gonorrhea, and trichomonas, may irritate the cervix or uterine lining, which in turn will lead to bleeding and other symptoms like vaginal pain, dysuria (burning during urination), pain with sex, or crampy pelvic pain. NOTE: 80% of STIs have NO SYMPTOMS so anyone having more than one sexual partner in the past year should be advised to undergo testing.

- **Implantation bleeding:** Bleeding with implantation has more to do with an irritation to the uterine lining than to ovulation or hormone levels.

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