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# Women's health depends on a lifetime of answers—one test at a time.

Women and Puberty and the Menstrual Cycle

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As an integrated healthcare company, our comprehensive solutions follow the complete continuum of reproductive care. In addition, our solutions in healthcare IT support the exchange of data for making informed decisions.

- A higher gain in body mass index (BMI) during childhood is related to an earlier onset of puberty.<sup>1</sup>
- Women with a history of infertility and pelvic tenderness are more than three times as likely to report having heavy or prolonged bleeding compared to women without these conditions.<sup>2</sup>
- Among women of reproductive age, the prevalence of amenorrhea ranged from approximately 5 to 13%.<sup>2</sup>
- 5–20% of women report severe dysmenorrhea, or pain, that prevents them from participating in their usual activities.<sup>2</sup>
- Von Willebrand disease is the most common medical disorder associated with menorrhagia at menarche.<sup>1</sup>
- The prevalence of oligomenorrhea, or cycles longer than 35 days, ranged from 8 to 22%.<sup>2</sup>
- 9–14% of reproductive-aged women have blood loss that exceeds 80 mL.<sup>2</sup>
- Prolonged and excessive bleeding may provoke or exacerbate anemia and, in a certain percentage of cases, may eventually be life threatening if left untreated.<sup>2</sup>
- Traditional cultures of silence often surround menstruation and may inhibit women from obtaining information about menstruation or from seeking care for menstrual morbidities.<sup>2</sup>

Answers for life.

## Causes of Menstrual Irregularity

- Pregnancy
- Endocrine causes
  - Poorly controlled diabetes mellitus
  - Polycystic ovary syndrome
  - Cushing's disease
  - Thyroid dysfunction
  - Premature ovarian failure
  - Late-onset congenital adrenal hyperplasia
- Acquired conditions
  - Stress-related hypothalamic dysfunction
  - Medications
  - Exercise-induced amenorrhea
  - Eating disorders (both anorexia and bulimia)
- Tumors
  - Ovarian tumors
  - Adrenal tumors
  - Prolactinomas

## Menstrual Conditions That May Require Evaluation

Menstrual periods that:

- Have not started within 3 years of thelarche
- Have not started by 13 years of age with no sign of pubertal development
- Have not started by 14 years of age with signs of hirsutism
- Have not started by 14 years of age with a history or examination suggestive of excessive exercise or eating disorder
- Have not started by 14 years of age with concerns about genital outflow tract obstruction or anomaly
- Have not started by 15 years of age
- Are regular, occurring monthly, and then become markedly irregular

- Occur more frequently than every 21 days or less frequently than every 45 days
- Occur 90 days apart even for one cycle
- Last more than 7 days
- Require frequent pad or tampon changes (soaking more than one every 1–2 hours)

A longstanding market leader in the area of reproductive endocrinology, Siemens Healthcare Diagnostics offers a broad range of systems and assays to address the various clinical needs in reproductive health—throughout life.

### References

1. [http://www.acog.org/Resources\\_And\\_Publications/Committee\\_Opinions/Committee\\_on\\_Adolescent\\_Health\\_Care/Menstruation\\_in\\_Girls\\_and\\_Adolescents\\_-\\_Using\\_the\\_Menstrual\\_Cycle\\_as\\_a\\_Vital\\_Sign](http://www.acog.org/Resources_And_Publications/Committee_Opinions/Committee_on_Adolescent_Health_Care/Menstruation_in_Girls_and_Adolescents_-_Using_the_Menstrual_Cycle_as_a_Vital_Sign).
2. <http://onlinelibrary.wiley.com/doi/10.1111/j.1471-0528.2004.00012.x/pdf>

For more information log onto  
[www.siemens.com/women-and-puberty](http://www.siemens.com/women-and-puberty)

Empowering you to advance the health and vitality of women throughout the continuum of life. **Your results. Her lifetime.**

Siemens Healthcare Diagnostics, a global leader in clinical diagnostics, provides healthcare professionals in hospital, reference, and physician office laboratories and point-of-care settings with the vital information required to accurately diagnose, treat, and monitor patients. Our innovative portfolio of performance-driven solutions and personalized customer care combine to streamline workflow, enhance operational efficiency, and support improved patient outcomes.

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