caused by peritoneal irritation by follicular fluid released at the time of ovulation.

Dysmenorrhea typically refers to the crampy lower abdominal midline discomfort that begins with the onset of menstrual bleeding and gradually decreases over 12–72 h. It may be associated with nausea, diarrhea, fatigue, and headache and occurs in 60–93% of adolescents, beginning with the establishment of regular ovulatory cycles. Its prevalence decreases after pregnancy and with the use of oral contraceptives. *Primary dysmenorrhea* results, in a majority of cases, from hormone-dependent prostaglandin (PG) pathway mechanisms that cause intense uterine contractions, decreased blood flow, and increased peripheral nerve hypersensitivity, resulting in pain. However, variability in response to cyclooxygenase inhibitors suggests that PG-independent pathways, such as platelet activating factor, may also mediate inflammation. *Secondary dysmenorrhea* is caused by underlying pelvic pathology.

Endometriosis results from the presence of endometrial glands and stroma outside the uterus. These deposits of ectopic endometrium respond to hormonal stimulation and are associated with dysmenorrhea, painful intercourse, painful bowel movements, and tender nodules that may be palpated along the uterosacral ligaments during pelvic exam. The stage/severity of endometriosis does not always correlate with the extent of pain, and pain associated with endometriosis can be cyclic or continuous. Transvaginal pelvic ultrasound is part of the initial workup and may detect an endometrioma within the ovary or, in severe cases, rectovaginal or bladder nodules. The CA125 level may be increased, but it has low negative predictive value. Diagnostic laparoscopy is performed when patients do not respond to empiric treatment. If endometriosis is detected, the severity can be staged and the endometriotic lesions ablated or excised. The prevalence is lower in black and Hispanic women than in Caucasians and Asians.

Large *fibroids* can cause chronic pelvic pain or pressure, and submucosal fibroids may be associated with dysmenorrhea. *Other secondary causes* of dysmenorrhea include adenomyosis, a condition caused by the presence of ectopic endometrial glands and stroma within the myometrium. Chronic PID maybe associated with