Dysmenorrhea (Painful Periods)

Nationwide Children's
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Defining Dysmenorrhea

Painful menstruation — dysmenorrhea — is the most common menstrual disorder, with up to 90 percent of adolescent women experiencing pain with menses. Dysmenorrhea can be both primary and secondary in cause, and both forms are amenable to treatment. Primary dysmenorrhea is defined as painful menstruation in the absence of specific organic pathology, while secondary dysmenorrhea is related to conditions of the pelvic organs and may become worse over time. When a patient has painful periods, she and her family may be worried that it is a sign of a serious problem, such as cancer, or a threat to their reproductive potential. The vast majority of adolescents presenting with painful menses have primary dysmenorrhea and respond well to medical interventions.

Conditions Associated With Secondary Dysmenorrhea

Condition	Description
Endometriosis	Tissue that normally lines the inside of the uterus grows outside the uterus, most commonly around the ovaries, intestines or other pelvic organs
Müllerian duct anomalies	Congenital (developmental) anomalies of the reproductive tract in which menstrual egress may be blocked
Adenomyosis	Tissue that normally lines the inside of the uterine cavity grows into the muscular wall of the uterus
Fibroids	Noncancerous growths of the uterus
Salpingitis	Inflammation of the fallopian tubes
Pelvic adhesions	Bands of scar tissue that can cause internal organs to be stuck together when they are not supposed to be

Determining a Cause

Referral Note: For any tests, procedures or imaging that are outside the scope of your regular pediatric or general practice, please refer the patient to Pediatric and Adolescent Gynecology at Nationwide Children's Hospital.

History Patient and family histories are important for determining the cause of dysmenorrhea. The following list outlines key information that should be collected as part of the patient history:

- Age of menarche
- Menstrual pattern
- Description of menstrual pain
- Associated symptoms (nausea/vomiting, diarrhea, low back pain, thigh pain, headache, fatigue, dizziness, syncope)
- Previously tried therapies (both prescription and over-the-counter) and response
- Sexual history (sexual activity, history of sexual abuse, contraceptive use, condom use, history of sexually transmitted infections)
- History of vaginal discharge
- Family history of menstrual problems
- Severity of symptoms (missed school days, adverse impact on academic performance, interference with outside activities)

Physical Exam The patient's physical exam should include height, weight, blood pressure, thyroid exam, breast exam (Tanner staging), abdominal exam, musculoskeletal exam and gynecologic exam. If you do not routinely perform gynecologic exams as part of your pediatric or general practice, we recommend that the patient be referred to a pediatric and adolescent gynecologist. The gynecologic exam should focus on Tanner staging, external genitalia and, depending on patient's age and other complaints, speculum and bimanual exam. Sometimes a rectoabdominal exam or transabdominal ultrasound may be utilized instead of a speculum and bimanual exam.

Imaging In some cases, particularly in patients not responsive to first line medical intervention, imaging will be necessary to determine the cause of dysmenorrhea. Pelvic ultrasound — typically a transabdominal ultrasound in the virginal patient — is recommended for initial screening. If the pelvic ultrasound suggests a müllerian anomaly obtain a pelvic MRI.

Comorbid Conditions If the patient has heavy menstrual bleeding with regular cycles, evaluate for anemia and underlying thyroid disease. Consider a full bleeding disorder work-up if the patient has symptoms of an underlying bleeding disorder, such as easy bruising and prolonged nonmenstrual bleeding.

If the patient has irregular cycle intervals in addition to the heavy menstrual bleeding, evaluate for etiologies of anovulation by checking CBC, TSH and prolactin. Consider adding an evaluation for polycystic ovarian syndrome if patient has clinical signs of hyperandrogenism, such as acne and hirsutism.

Treating Dysmenorrhea

> **Referral Note:** For support with medication or hormone therapy or for patients that may need surgical intervention, please refer the patient to Pediatric and Adolescent Gynecology at Nationwide Children's Hospital.

A variety of treatment modalities are available to treat dysmenorrhea depending on the severity and cause of the pain and responsiveness of the patient to the treatment. It is important to follow up with the patient 3 to 4 months after a new treatment has begun to assess its effectiveness and monitor any side effects.

Lifestyle and Behavior Behavioral modifications are an important part of managing dysmenorrhea. A healthy lifestyle, including exercise, adequate sleep, proper nutrition and stress reduction, will support and improve the management of dysmenorrhea.

Over-the-Counter Medications For some patients, dysmenorrhea can be managed appropriately through the use of NSAIDs – ibuprofen, naproxen and mefenamic acid. Patients should start NSAIDs at the onset of menses and continue for 1-2 days. Consider starting 1-2 days prior to menses to minimize duration and intensity of pain.

Heat therapy, including the use of topical heat patches applied to the lower abdomen or back, has a synergistic effect when used with NSAIDs.

Hormonal Therapy For patients with pain inadequately controlled with NSAIDs and behavioral modifications, hormonal therapy is recommended. Hormonal therapy options include:

- Combined hormonal contraceptives: pills, transdermal patch or vaginal ring
- Progestin-only pills
- Injectable progestin: depo-medroxyprogesterone acetate
- Etonogestrel contraceptive implant
- Levonorgestrel intrauterine device

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Surgical Intervention Diagnostic laparoscopy may be warranted to evaluate for endometriosis and/or a congenital anomaly of the müllerian tract. Laparoscopy is typically performed if significant dysmenorrhea persists despite three cycles of hormonal therapy in conjunction with NSAIDs. Laparoscopy can confirm the presence of endometriosis or a structural etiology of pain, such as an obstructed müllerian remnant.

Therapeutically, laparoscopy can be used for the ablation or excision of endometriosis, lysis of adhesions and resection of non-communicating uterine horns in the case of an obstructive müllerian anomaly.

A negative laparoscopy may be equally valuable in reassuring the patient and her family that underlying endometriosis or other structural etiologies do not exist. Sharing pictures of normal anatomy with the patient and her family provides reassurance and is particularly beneficial if there is any somatization.

Gonadotropin-Releasing Hormone Agonists This class of medication is useful for patients with laparoscopically confirmed, biopsy proven cases of endometriosis. The drug suppresses spontaneous ovulation by inhibiting the hypothalamic-pituitary-ovarian axis at the level of the pituitary.

Referring to Pediatric and Adolescent Gynecology

At Nationwide Children's, self-referrals and physician referrals are welcome for any reason. We are available to assist with dysmenorrhea work-up and other gynecological needs. For young women, it is important to make gynecological care part of their health care routine.

The American Congress of Obstetricians and Gynecologists recommend an initial gynecologic visit between the ages of 13 and 15 years. The initial reproductive health visit provides an excellent opportunity for the obstetrician-gynecologist to start a patient-physician relationship, build trust and counsel patients and parents regarding healthy behavior while dispelling myths and fears.

Referrals and Consultations

Online: **NationwideChildrens.org/Gynecology**
Phone: **(614) 722-2250** or **(877) 722-6220** | Fax: **(614) 355-6228**
Physician Direct Connect Line for 24-hour urgent physician consultations:
(614) 355-0221 or **(877) 355-0221**

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