

support and reassurance that although the symptoms are difficult to deal with, the disorder is not generally a threat to the child's health.

Inflammatory Disorders

Acute Appendicitis

Appendicitis, inflammation of the **vermiform appendix** (blind sac at the end of the cecum), is the most common cause of emergency abdominal surgery in childhood. In the United States, 70,000 cases are diagnosed each year (Pepper, Stanfill, and Pearl, 2012). The average age of children with appendicitis is 10 years old, with boys and girls equally affected before puberty (Pepper, Stanfill, and Pearl, 2012). Classically, the first symptom of appendicitis is periumbilical pain followed by nausea, right lower quadrant pain, and later vomiting with fever (Balachandran, Singhi, and Lal, 2013). Perforation of the appendix can occur within approximately 48 hours of the initial complaint of pain and occurs in 20% to 40% of children with appendicitis (Wheeler, 2011). Complications from appendiceal perforation include major abscess, phlegmon, enterocutaneous fistula, peritonitis, and partial bowel obstruction (Pepper, Stanfill, and Pearl, 2012). A **phlegmon** is an acute suppurative inflammation of subcutaneous connective tissue that spreads.

Etiology

The cause of appendicitis is obstruction of the lumen of the appendix, usually by hardened fecal material (fecalith). Swollen lymphoid tissue, frequently occurring after a viral infection, can also obstruct the appendix. Another rare cause of obstruction is a parasite such as *Enterobius vermicularis*, or pinworms, which can obstruct the appendiceal lumen.

Pathophysiology

With acute obstruction, the outflow of mucus secretions is blocked, and pressure builds within the lumen, resulting in compression of blood vessels. The resulting ischemia is followed by ulceration of