

Signs of peritonitis, in addition to fever, include sudden relief from pain after perforation; subsequent increase in pain (usually diffuse and accompanied by rigid guarding of the abdomen); progressive abdominal distention; tachycardia; rapid, shallow breathing as the child refrains from using abdominal muscles; pallor; chills; irritability; and restlessness.

Therapeutic Management

Treatment of appendicitis before perforation is surgical removal of the appendix (**appendectomy**). Usually antibiotics are administered preoperatively. IV fluids and electrolytes are often required before surgery, especially if the child is dehydrated as a result of the marked anorexia characteristic of appendicitis.

The operation is usually performed through a right lower quadrant incision (open appendectomy). Laparoscopic surgery is commonly used to treat nonperforated acute appendicitis. Advantages of laparoscopic appendectomy include reduced time in surgery and anesthesia, and reduced risk of postoperative wound infection ([Wray, Kao, Millas, et al, 2013](#)).

Ruptured Appendix

Management of the child diagnosed with peritonitis caused by a ruptured appendix often begins preoperatively with IV administration of fluid and electrolytes, systemic antibiotics, and NG suction. Postoperative management includes IV fluids, continued administration of antibiotics, and NG suction for abdominal decompression until intestinal activity returns. Sometimes surgeons close the wound after irrigation of the peritoneal cavity. Other times, the wound is left open (delayed closure) to prevent wound infection.

Prognosis

Complications are uncommon after a simple appendectomy, and recovery is usually rapid and complete. The mortality rate from perforating appendicitis has improved from nearly certain death a century ago to 1% or less at the present time ([Wray, Kao, Millas, et al, 2013](#)). Complications, however, including wound infection and intraabdominal abscess, are not uncommon. Early recognition of