

retained stool, abdominal pain, lack of appetite, and stool incontinence (i.e., soiling) (Rogers, 2012). The frequency of bowel movements is not considered a diagnostic criterion because it varies widely among children. Having extremely long intervals between defecation is **obstipation**. Constipation with fecal soiling is **encopresis**.

Constipation may arise secondary to a variety of organic disorders or in association with a wide range of systemic disorders. Structural disorders of the intestine (such as strictures, ectopic anus, and Hirschsprung disease, may be associated with constipation. Systemic disorders associated with constipation include hypothyroidism, hypercalcemia resulting from hyperparathyroidism or vitamin D excess, and chronic lead poisoning. Constipation is also associated with use of drugs, such as antacids, diuretics, antiepileptics, antihistamines, opioids, and iron supplementation. Spinal cord lesions may be associated with loss of rectal tone and sensation. Affected children are prone to chronic fecal retention and overflow incontinence.

The majority of children have **idiopathic** or **functional constipation** because no underlying cause can be identified. Chronic constipation may occur as a result of environmental or psychosocial factors, or a combination of both. Transient illness, withholding and avoidance secondary to painful or negative experiences with stooling, and dietary intake with decreased fluid and fiber all play a role in the etiology of constipation.

Newborn Period

Normally, newborn infants pass a first meconium stool within 24 to 36 hours of birth. Any newborn that does not do so should be assessed for evidence of intestinal atresia or stenosis, Hirschsprung disease, hypothyroidism, meconium plug, or meconium ileus.

Meconium plug is caused by meconium that has reduced water content and is usually evacuated after digital examination but may require irrigations with a hypertonic solution or contrast medium.

Meconium ileus, the initial manifestation of cystic fibrosis, is the luminal obstruction of the distal small intestine by abnormal meconium. Treatment is the same as for a meconium plug; early surgical intervention may be needed to evacuate the small intestine.