

CdLS 411: Malrotation

What is malrotation?

Malrotation occurs when the intestine does not fold or rotate properly in early fetal development. Malrotated intestines may “flop” around since they are not properly attached to the abdomen wall. Malrotation is a malformation that is present at birth; however, symptoms can show up at any age.

What is volvulus?

Volvulus is a type of malrotation where the intestines twist around one another. As this happens, the duodenum may be twisted shut, which can induce vomiting or pain. If the intestine twists further, it may compress the blood supply. This can cause severe pain as the blood supply to the small intestine is cut off. The twists can also cause bowel obstruction by blocking the gastrointestinal tract.

Symptoms of Malrotation and Volvulus

Vomiting

Pain

Swollen abdomen

Bloody or loose stools

Rapid heart rate and breathing

Little or no urine

Fever

Malrotation is a Medical Emergency

If the twisting cuts off blood supply to the intestine for too long the intestine will die. The entire small intestine is usually involved, and when this much bowel is lost, most children require intravenous nutrition for the rest of their lives.

If volvulus is not present, surgical correction is usually done within a few days. If volvulus is present, surgery should occur immediately. The surgeon will untwist the intestine and try to determine if any intestine has died. Once dead intestine is removed, the remaining intestine is attached to the back of the abdomen to prevent future volvulus.

Information taken from CdLS CAB Member Carol Potter’s article: “GI Distress, Malrotation, Volvulus, Bowel Obstruction, Pancreatitis.”