Here are key medical terms that may help foster a deeper understanding of SBS for you and your patients.



### An introduction to short bowel syndrome

**Short bowel syndrome (SBS)** is a chronic and severe condition characterized by malabsorption, resulting from physical loss of substantial portions of the intestine and functional deficiency, and patients often require long-term parenteral support (PS). SBS is a challenging and often disabling condition associated with significant morbidity and mortality, reduced quality of life, and high healthcare costs. Symptoms of SBS include weight loss, diarrhea, dehydration, and malnutrition.

**Parenteral support (PS)** is a life-sustaining therapy that provides nourishment and hydration to patients with SBS and intestinal failure. PS includes parenteral nutrition (PN) and intravenous (IV) fluids.

#### The 3 types of SBS:











### **CAUSES**

Bowel infarction	<ul> <li>A lack of blood to the intestines due to a partially or fully blocked blood vessel</li> <li>Symptoms can be chronic or acute; patients with acute symptoms may suffer from sudden abdominal pain, an urgent need to use the bathroom, and blood in the stool. Chronic symptoms may include unintended weight loss, diarrhea, and bloating</li> </ul>
Crohn's disease	<ul> <li>A type of inflammatory bowel disease that causes swelling of tissues in the digestive tract</li> <li>Symptoms include diarrhea, kidney stones, bloody stool, and anemia</li> </ul>
Functional deficiency of the intestines	<ul> <li>Leads to insufficient digestion and malabsorption of nutrients, water, and electrolytes</li> <li>Patients might not absorb all the essential vitamins their bodies need to function properly</li> <li>Scurvy, decreased muscle coordination, and osteoporosis are all caused by vitamin deficiencies</li> </ul>
Mesenteric infarction	<ul> <li>Occurs when narrowed or blocked arteries restrict blood flow to the small intestine</li> <li>One of the most common causes of SBS, found in 25% to 30% of patients</li> <li>Symptoms include sudden and severe belly pain, an urgent need to have a bowel movement, fever, nausea, and vomiting</li> </ul>
Neoplasms	<ul> <li>An abnormal mass of tissue that forms when cells grow and divide more than they should, or do not die when they should</li> <li>Also known as tumors, neoplasms may be benign or malignant</li> </ul>
Radiation enteritis	<ul> <li>Damage to the small and/or large intestines due to radiation</li> <li>Symptoms include diarrhea, abdominal pain, intestinal hemorrhage, intestinal obstruction, intestinal perforation, fistulas, malabsorption, rectal pain, and rectal bleeding from ulceration</li> </ul>
Surgical resection	<ul> <li>In most instances, SBS results from extensive surgical resection of the small intestine due to midgut volvulus, malrotation, extensive aganglionosis, or necrotizing enterocolitis</li> <li>Approximately 15% of all intestinal resections result in SBS</li> </ul>
Volvulus	<ul> <li>Occurs when a loop of intestine twists around itself and the mesentery that supports it, causing bowel obstruction</li> <li>Symptoms include abdominal distension, pain, vomiting, constipation, and bloody stools</li> </ul>





## **COMPLICATIONS**

Chronic intestinal failure	<ul> <li>The body is unable to maintain energy and nutritional needs through absorption of food or nutrients via the intestinal tract</li> </ul>
	<ul> <li>Persons with intestinal failure may need long-term PS</li> </ul>
Fatty acid deficiency/ Essential fatty acid deficiency (EFAD)	<ul> <li>A deficiency in essential fatty acids, commonly seen in malabsorption disorders, which may result from bowel resection or pancreatic insufficiency</li> </ul>
	<ul> <li>Patients may experience dry and scaly rashes, hair loss or depigmentation, and poor wound healing, as well as an increased susceptibility to infection</li> </ul>
Hypotension	Low blood pressure that may require IV fluids and electrolytes
	<ul> <li>Symptoms may include blurred or fading vision, dizziness or lightheadedness, and fainting</li> </ul>
Intestinal failure- associated liver disease (IFALD)	A progressive liver disease linked to underlying intestinal failure
	A leading complication resulting from long-term PS
	<ul> <li>Complications range from mild elevation of liver enzymes to end-stage liver disease and cirrhosis</li> </ul>
Intestinal insufficiency	<ul> <li>Refers to the reduced absorptive function of the intestine without the need for PS, while intestinal failure does require PS</li> </ul>
Sepsis	Infection of the bloodstream; may be associated with IV tubing (catheter) infection
	<ul> <li>Symptoms may include fever, elevated heart rate, rapid or trouble breathing, and severe pain</li> </ul>
	<ul> <li>May progress to septic shock, a widespread infection that can lead to tissue damage, organ failure, and death</li> </ul>
Thrombosis	<ul> <li>The formation of a blood clot (partial or complete blockage) within blood vessels, whether venous or arterial, limiting the natural flow of blood and resulting in additional clinical complications</li> </ul>
	<ul> <li>Symptoms include isolated swelling, pain, warmth, and erythema at the site of the blockage</li> </ul>





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