# Overview of SHORT BOWEL SYNDROIS

Short bowel syndrome (SBS) is a condition that is characterized by poor absorption of nutrients due to a lack of functional small intestine. SBS may occur in individuals who:

- have had surgery to remove a portion of their small intestine
- have significant damage of the small intestines
- have intestines with altered functional ability
- (eg, poor intestinal motility)
- are born with a short bowel (congenital SBS)

#### SIGNS AND SYMPTOMS

The signs and symptoms of SBS may include:

- Diarrhea
- Dehydration
- Bloating
- Cramping
- Fatigue, or feeling tired
- Foul-smelling stool
- Heartburn
- Flatulence
- Vomiting
- Weakness



### COMPLICATIONS OF SBS

#### Some of the complications of SBS are:



Malnutrition, a common problem in individuals with SBS. Is related to the intestines inability to absorb nutrients. It may be managed with nutritional therapy and dietary recommendations that are tailored to the individual.



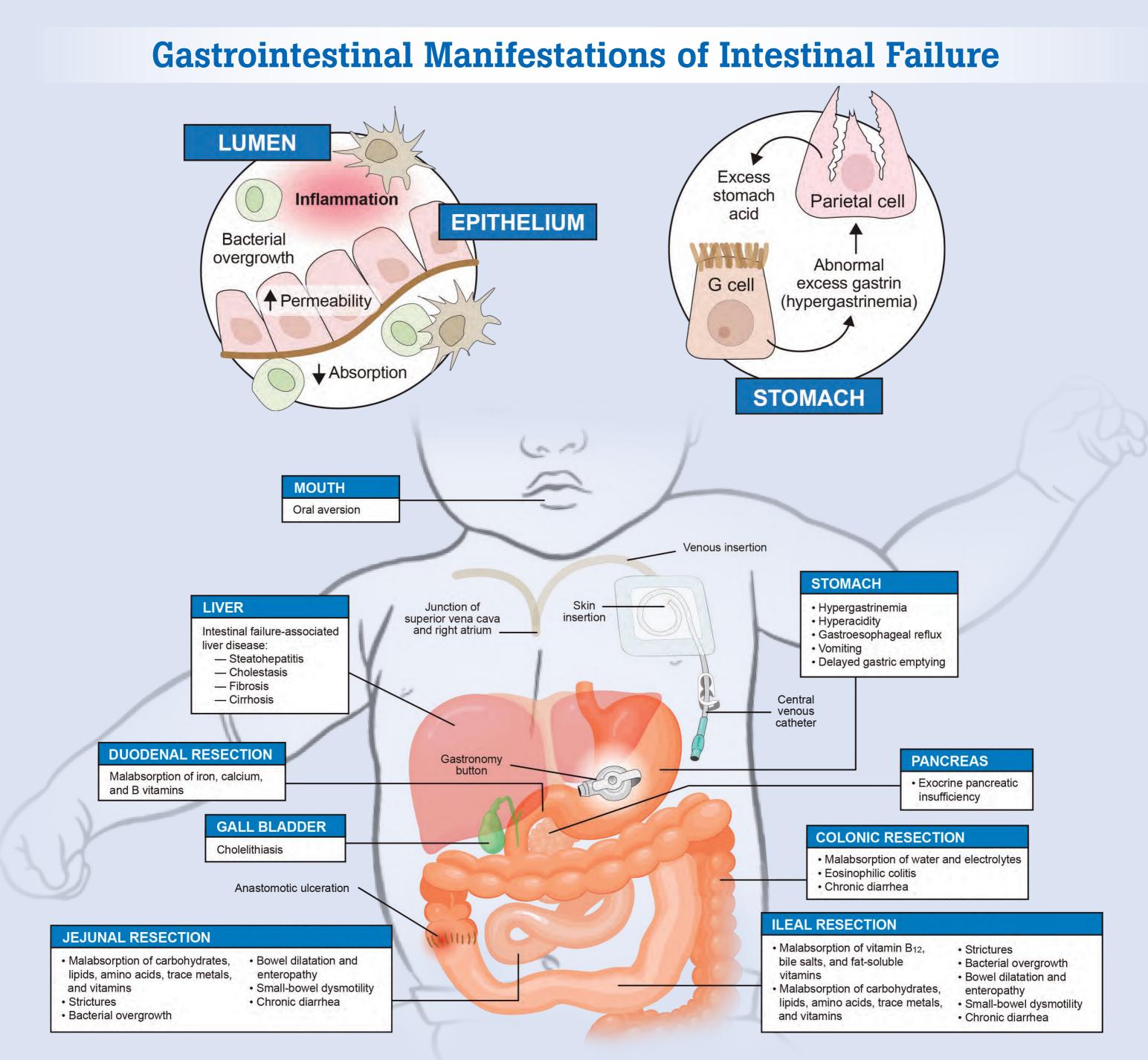
Kidney stones occur for a variety of reasons in individuals with SBS. They may be managed with traditional medical therapy, shock wave lithotripsy, cystoscopy, or percutaneous nephrolithotomy.



Peptic ulcers are caused by the overproduction of gastric acid. They may be managed by proton pump inhibitors or histamine receptor blockers.



**Small intestinal bacterial overgrowth** is another common complication in individuals with SBS. This overgrowth is managed with antibiotics.



### Figure adapted from Duggan, et. al.

## EVALUATION/ASSESSMENT OF SBS

Individuals with SBS usually cannot adequately absorb water, vitamins, minerals, proteins, fats,

calories, and other nutrients from food via their gastrointestinal tract. Determining the optimal treatment requires a thorough assessment of the individual. The evaluation/assessment of a patient with SBS may include:

- Physical examination
- Muscle wasting
  - Weight loss Signs of vitamin and mineral deficiencies
  - **Blood testing**

Medical and family history

- Metabolic disturbances
  - Vitamin and mineral deficiency
- **Fecal tests** X-ray of the small and large intestines
- to identify intestinal blockage Upper gastrointestinal series
  - Small bowel follow-through study
  - Small bowel enteroscopy
  - Computerized tomography enterography

CLINICAL PEARLS

absorption of nutrients resulting in PN dependence.

The condition occurs as a result of the loss of

small intestine due to disease, trauma, or birth defects.

SBS is a condition characterized by poor

Management decisions for patients with SBS should be based on

physical examination, blood testing, and imaging studies.

a thorough assessment of the individual's presentation and history. The evaluation of these patients may include a complete history,

Duggan CP, Jaksic T. N Engl J Med. 2017; 377:666-675.

References/Resources Cohran VC et al. Redefining short bowel syndrome in the 21st century. *Pediatr Res.* 2017; 81:540–549.

Massironi S et al. Understanding short bowel syndrome: current status and future perspectives. Dig Liver Dis. 2020; 52:253-261.

National Institutes of Health. National Institute of Diabetes and Digestive and Kidney Diseases. Short bowel syndrome. Accessed June 22, 2021. https://www.niddk.nih.gov/health-information/digestive-diseases/short-bowel-syndrome#symptoms. O'Keefe SJ et al. Short bowel syndrome and intestinal failure: consensus definitions and overview. Clin Gastroenterol

Hepatol. 2006; 4:6-10. Shakhsheer BA, Warner BW. Short bowel syndrome. Curr Treat Options Pediatr. 2019; 5:494-505.