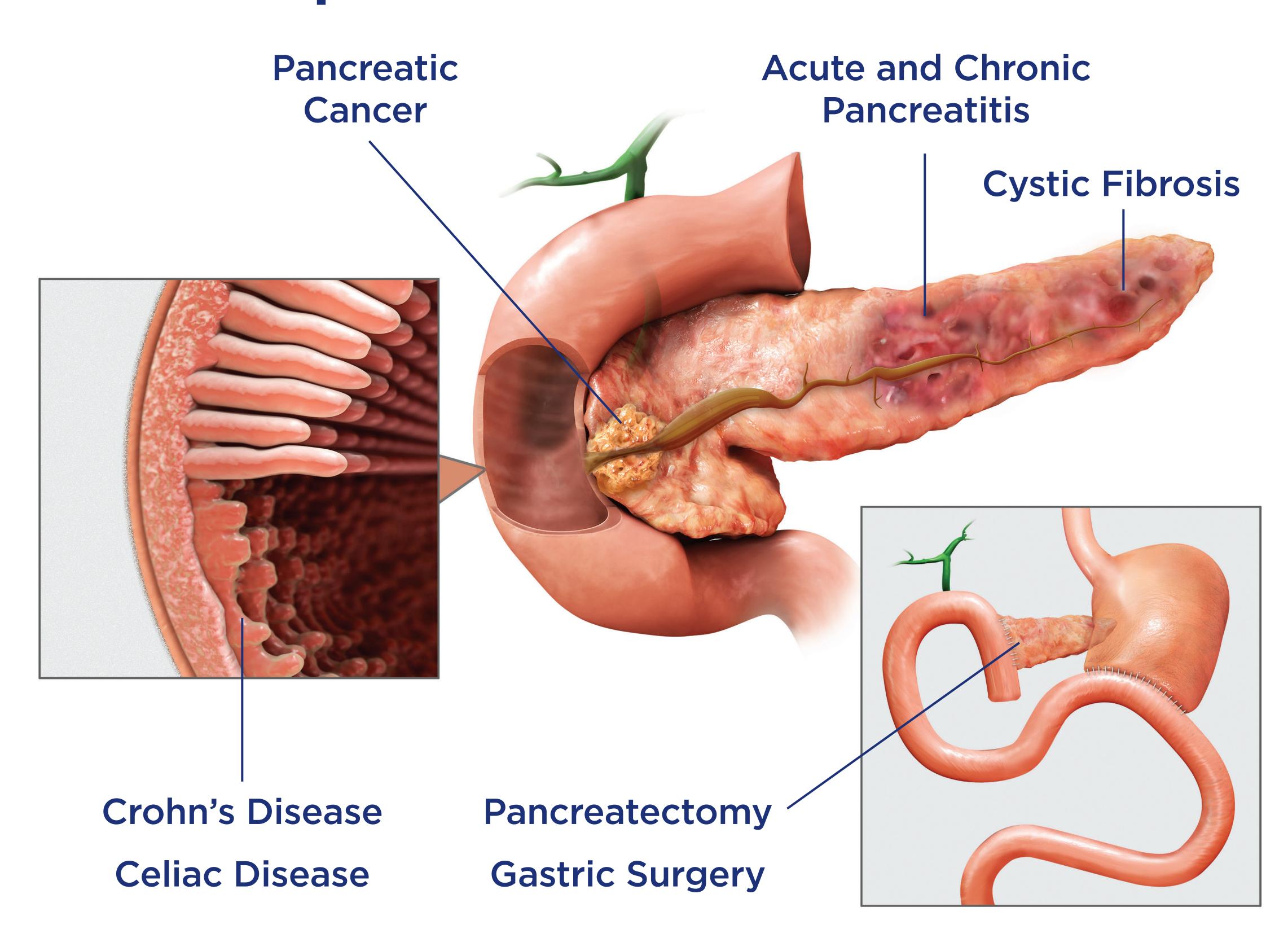
# Gastrointestinal Upset? Nutritional Deficiencies? Consider the Pancreas

Exocrine Pancreatic Insufficiency (EPI)—Decreased Production, Delivery, or Activity of Pancreatic Enzymes Needed for Proper Digestion

## EPI Is Caused by Various Pancreatic and Extrapancreatic Conditions<sup>1,2\*</sup>



\*This list is not all-inclusive of EPI etiologies.

## EPI Signs and Symptoms<sup>1,2</sup>

- Flatulence
- Bloating
- Abdominal discomfort
- Fatty food intolerance
- Diarrhea
- Malodorous stool
- Steatorrhea

MIMIC THAT OF OTHER GI CONDITIONS, CONFOUNDING DIAGNOSIS<sup>5</sup>

## **EPI Can Have Nutritional** Consequences and Impact Quality of Life<sup>1,2</sup>

- Micronutrient and fat-soluble vitamin deficiencies
- Malnutrition
- Weight loss

### **OBSERVED IN PATIENTS** WITH CHRONIC PANCREATITIS

- Impaired quality of life<sup>3</sup>
- Increased mortality<sup>4</sup>

## EPI Is Largely a Clinical Diagnosis

Considerations in the diagnosis of EPI

PRESENCE OF EPI-PREDISPOSING CONDITION<sup>5,6</sup>

- Cystic fibrosis
- Chronic pancreatitis
- Acute pancreatitis
- Pancreatic/gastric surgery
- Pancreatic cancer
- Inflammatory bowel disease

Steatorrhea

Micronutrient

deficiencies

deficiencies

Malnutrition

Weight loss

Fat soluble

vitamin

Celiac disease

SIGNS & SYMPTOMS<sup>5,6</sup>

- Flatulence
- Bloating Abdominal
- discomfort Fatty food intolerance
- Diarrhea
- Malodorous stool
- Fecal elastase-1 test
- Fecal fat tests
- Biochemical markers of nutritional status
- Direct pancreatic function test

- Accustomed to symptoms
- to avoid symptoms

## PERT Is the Cornerstone of EPI Treatment

Pancreatic enzyme replacement therapy (PERT) a combination of porcine-derived lipases, proteases, and amylases to aid digestion<sup>9</sup>

- PERT must be taken orally with each meal and snack
- Dosing options are based on



Patient weight



Fat content of the diet

Underlying condition\*

Dose should be individualized based on



Clinical symptoms

Fat content of the diet



steatorrhea

 If symptoms and signs of steatorrhea persist, dosage can be increased

#### **GENERAL SAFETY**

- To avoid irritation of oral mucosa, patients should not chew PERT or retain in the mouth
- Exercise caution when prescribing PERT to patients with gout, renal impairment, or hyperuricemia
- Exercise caution when administering pancrelipase to a patient with a known allergy to proteins of porcine origin
- Fibrosing colonopathy has been reported in patients with cystic fibrosis taking high-dose PERT

\*According to individual PERT label.

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PATIENT FACTORS THAT MAY DELAY DIAGNOSIS<sup>7,8</sup>

SUPPLEMENTAL

TESTS<sup>5,6</sup>

Restricting fat intake

Embarrassment

