pancrelipase (pan-kre-li-pase)

**Genital Implication.** CAPI TALS indicate life-threatening, underline indicate most frequent. Strikethrough

Discontinued.

**Classification**

- **Therapeutic:** Digestive agent
- **Pharmacologic:** Pancreatic enzymes

**Pregnancy Category:** C

**Indications**

Pancreatic insufficiency associated with: Chronic pancreatitis, Pancreatectomy, Cystic fibrosis, GI bypass surgery, Ductal obstruction secondary to tumor.

**Action**

Contains lipolytic, amylolytic, and proteolytic activity. **Therapeutic Effects:** Increased digestion of fats, carbohydrates, and proteins in the GI tract.

**Pharmacokinetics**

- **Absorption:** Unknown
- **Distribution:** Unknown
- **Metabolism and Excretion:** Unknown
- **Half-life:** Unknown

**TIME/ACTION PROFILE (digestive effects)**

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<thead>
<tr>
<th>ROUTE</th>
<th>ONSET</th>
<th>PEAK</th>
<th>DURATION</th>
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<tr>
<td>PO</td>
<td>rapid</td>
<td>unknown</td>
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**Contraindications/Precautions**

- **Contraindicated in:** Hypersensitivity to hog proteins.

- **Use Cautiously in:** Gout, renal impairment, or hyperuricemia (may increase uric acid levels); OB, Lactation: Safety not established.

**Adverse Reactions/Side Effects**

- **EENT:** Nasal stuffiness.
- **Resp:** Dyspnea, shortness of breath, wheezing.
- **GI:** FIBROSING COLONOPATHY (high doses only), abdominal pain (high doses only), diarrhea, nausea, stomach cramps, oral irritation.
- **GU:** Hematuria.
- **Derm:** Hives, rash.
- **Metab:** Hyperuricemia.
- **Misc:** Allergic reactions.

**Interactions**

- **Drug-Drug:** Antacids (calcium carbonate or magnesium hydroxide) may affect effectiveness of pancrelipase. May increase absorption of concurrently administered iron supplements.
- **Drug-Food:** Alkaline foods destroy enteric coating on enteric-coated products.

**Route/Dosage**

- **PO (Adults and Children ≥ 4 yr):** Initiate with 500 lipase units/kg/meal; dose should be adjusted based on weight, clinical improvement, and used fat content; maximum dose = 2500 lipase units/kg/meal (or 10,000 lipase units/kg/day).
- **PO (Children ≥ 1 yr and ≤ 4 yr):** Initiate with 1000 lipase units/kg/meal; dose should be adjusted based on weight, clinical improvement, and used fat content; maximum dose = 2500 lipase units/kg/meal (or 10,000 lipase units/kg/day).
- **PO (Children ≤ 1 yr):** 2000–4000 lipase units per 120 mL of formula or breast milk.

**NURSING IMPLICATIONS**

**Assessment**

- Assess patient's nutritional status (height, weight, skin-fold thickness, arm muscle circumference, and lab values) prior to and periodically throughout therapy.
- Monitor stools for high fat content (steatorrhea). Stools will be foul-smelling and frothy.
- Assess patient for allergy to pork; sensitivity to pancrelipase may exist.
- **Lab Test Considerations:** May cause increase in serum and urine uric acid concentrations.

**Potential Nursing Diagnoses**

- Imbalanced nutrition: less than body requirements (Indications)

**Implementation**

- Pancreaze is not interchangable with any other pancrelipase product.
- **PO:** Administer immediately before or with meals and snacks.
  - Swallow tablets whole; do not crush, break, or chew.
  - Swallow capsules whole. If unable to swallow, capsules may be opened and sprinkled on foods. Delayed-release capsules filled should not be chewed (capable of swallowing capsule). Foods that can be swallowed without chewing, such as applesauce or Jell-O and followed immediately by water or juice to ensure complete ingestion. These medications should not be chewed or mixed with alkaline foods prior to ingestion or coating will be destroyed.

**NURSING DIAGNOSES**

- Imbalanced nutrition: less than body requirements (Indications)

- **Constitutional:** Melanoma, allergic reactions.

- **Drug-Drug:** Antacids (calcium carbonate or magnesium hydroxide) may affect effectiveness of pancrelipase. May increase absorption of concurrently administered iron supplements.
Half of the prescribed Pancreaze dose for an individualized full meal should be given with each snack. The total daily dose should reflect approximately three meals plus two or three snacks per day.

Do not mix contents of Pancreaze or Creon capsules directly into breast milk or formula. Capsule contents may be sprinkled on small amounts of acidic soft food with a pH of 4.5 or less (applesauce) and given to the infant within 15 minutes. Contents of the capsule may also be administered directly to the mouth. Follow administration with breast milk or formula.

Do not mix Zenpep capsule contents directly into formula or breast milk prior to administration. Administer with applesauce, bananas, or pears (commercially prepared) and follow with breast milk or formula.

Do not chew or retain Ultressa capsule in mouth.

Patient/Family Teaching

Encourage patients to comply with diet recommendations of health care professional (generally high-calorie, high-protein, low-fat). Dose should be adjusted for fat content of diet. Usually 300 mg of pancrelipase is necessary to digest every 17 g of dietary fat. If a dose is missed, it should be omitted and next dose taken with next meal, as directed. Do not increase dose without consulting health care professional. Several days may be required to determine correct dose. Advise patient to read Medication Guide before starting therapy and with each Rx refill, information may be updated.

Instruct patient not to chew tablets and to swallow them quickly with plenty of liquid to prevent mouth and throat irritation. Sitting upright to enhance swallowing helps further ensure that the medication is swallowed and does not remain in contact with mouth and esophagus for a prolonged period. Patient should avoid sniffing powdered contents of capsules, as sensitization of nose and throat may occur (nasal stuffiness or respiratory distress).

Advise patients and caregivers to notify health care professional if symptoms of fibrosing colonopathy (abdominal pain, distention, vomiting, constipation) occur. Occur more frequently with doses exceeding 6,000 lipase units/kg of body weight per meal (10,000 lipase units/kg of body weight/day) and have been associated with colonic strictures in children below the age of 12 years.

Instruct patient to notify health care professional if joint pain, swelling of legs, gastrointestinal, or rash occurs.

Advise female patients to notify health care professional if pregnancy is planned or suspected, or if breastfeeding.

Evaluation/Desired Outcomes

Improved nutritional status in patients with pancreatic insufficiency.

Normalization of stools in patients with steatorrhea.

Why was this drug prescribed for your patient?