



# Nutrition and Surgery in Patients With Cancer

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- In addition to irritability, headache, and dehydration, which of the following is an adverse effect of fasting prior to surgery?
  - Hypoglycemia
  - Hypervolemia
  - Paralytic ileus
  - Decrease in gastric acid production
- A patient's caloric intake should be increased by how many times following surgery?
  - 0.5
  - 1.5
  - 2.0
  - 4.5
- Which of the following laboratory studies is a useful clinical measure in estimating nutritional status?
  - Albumin
  - Serum potassium
  - Serum bicarbonate
  - Alkaline phosphatase
- Mr. George, newly diagnosed with colon cancer, observes that he was pleased to have recently lost 32 pounds without dieting prior to his diagnosis and would like to lose 5 more pounds. The oncology nurse calculates Mr. George's basal energy expenditure (kilocalories needed) on the basis of his
  - Weight-loss goal.
  - Ideal body weight.
  - Current body weight.
  - Personal preferences.
- Following surgery, protein requirements generally increase from 0.8 g/kg per day to
  - 1.0–1.4 g/kg per day.
  - 1.5–2.0 g/kg per day.
  - 5.0–6.0 g/kg per day.
  - 7.0–8.0 g/kg per day.
- Nutritional recommendations following cancer surgery generally focus on
  - A low-fat diet.
  - The heart-healthy diet.
  - A low-carbohydrate, high-protein diet.
  - A high-calorie diet emphasizing protein.
- When an oncology nurse learns that a newly admitted patient requiring major surgery for gastrointestinal malignancy recently lost 18% of her body weight, he plans to consult the dietitian to begin nutritional interventions
  - Preoperatively.
  - 3 days postoperative.
  - 7 days postoperative.
  - 14 days postoperative.
- When the family of Mr. Gunn asks why he has to have a feeding tube instead of being fed through his IV, the oncology nurse explains that enteral feeding is preferred for the following physiologic benefit.
  - Thins gut mucosa
  - Decreases caloric need
  - Produces hyperglycemia
  - Stimulates digestive hormones
- Cachexia in patients with malignancy is characterized by
  - Hypoglycemia.
  - Hypolipidemia.
  - Hypoalbuminemia.
  - Decreased muscle catabolism.
- When patients newly diagnosed with cancer inquire about nutrition, the nurse's best response is
  - "What concerns you most about your diet?"
  - "We can give you appetite-stimulating drugs."
  - "Don't worry about it. Eat whatever you want."
  - "You need to increase fruit and vegetable intake."

## Answers

**Question 1:** The correct answer is choice a, hypoglycemia. Fasting, as recommended

by the American Society of Anesthesiologists, includes clear liquids until two to four hours prior to scheduled surgical time or a light meal such as toast and clear liquids until six hours prior. A heavier meal should not be consumed within eight hours of scheduled surgical onset (Crenshaw & Winslow, 2002). Many patients facing surgery experience gastrointestinal distress secondary to emotional upset and anxiety. Long periods of fasting neither add to comfort nor ensure prevention of aspiration. The traditional practice of requesting that patients have nothing by mouth after midnight originated as an attempt to avoid pulmonary aspiration. In fact, gastric content volumes and pH are not directly related to length of fast, and pulmonary aspiration may occur despite a lengthy fast. In the preoperative period, promoting homeostasis and preparing patients to endure surgical stress and recover quickly are important. Choice b, hypervolemia, is incorrect. Hypovolemia rather than hypervolemia follows a lengthy period of fasting. Choice c, paralytic ileus, is incorrect. A paralytic ileus can be related to anesthesia during surgery, inflammation, or other abnormal metabolic processes rather than fasting. Choice d, decrease in gastric acid production, also is incorrect. Fasting does not ensure a decrease in gastric acid production. Investigators of gastric acidity comparing fasting with the consumption of food items such as toast, tea, milk, coffee, and orange juice found no significant differences in gastric volumes or pH (Crenshaw & Winslow).

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