



Nutrition After Surgery and Long Term Management

November 11, 2014

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Nutrition After Surgery and Long Term Management

November 11th, 2014



Maria Petzel, RD, CSO, LD,
CNSC, FAND

mpetzel@mdanderson.org



Jeannine Mills, MS, RD, CSO, LD

Jeannine.B.Mills@hitchcock.org

Nutrition Therapy Goals for Surgical Patients

- Prevent or reverse poor nutrition; optimize
- Recover from surgery and go on to systemic therapy as appropriate
- Manage symptoms
- Maintain or improve weight and strength
- Maximize quality of life

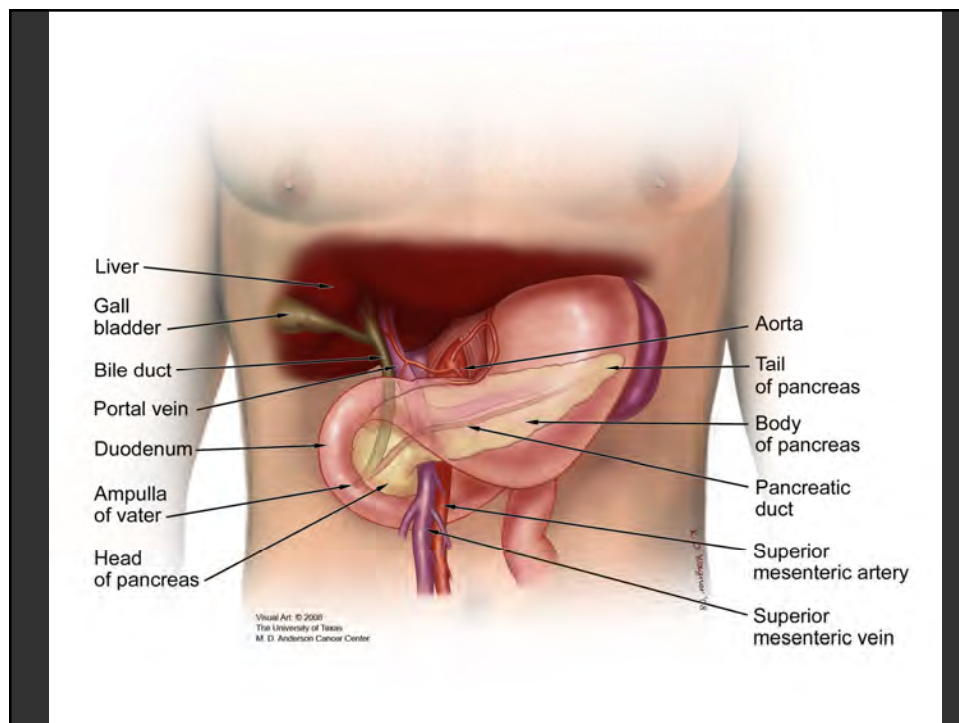


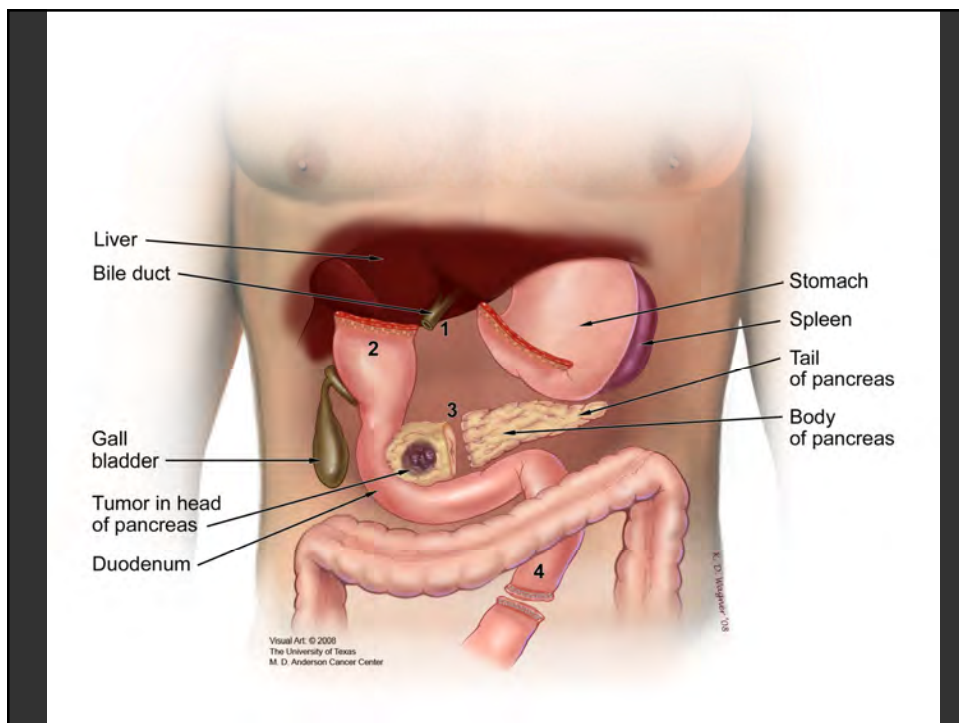
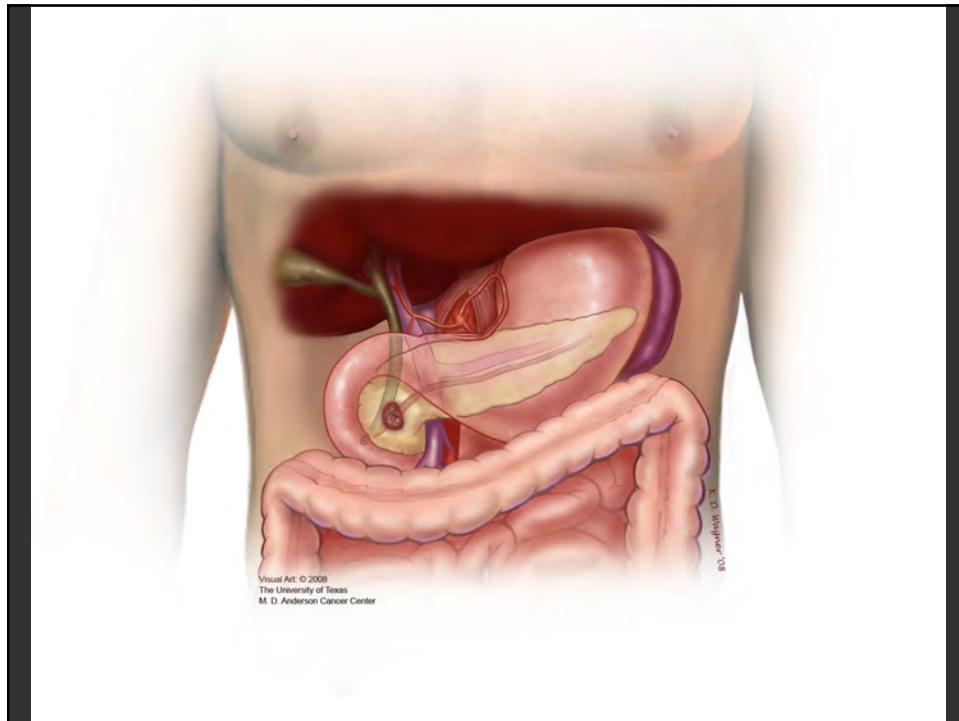
Objectives

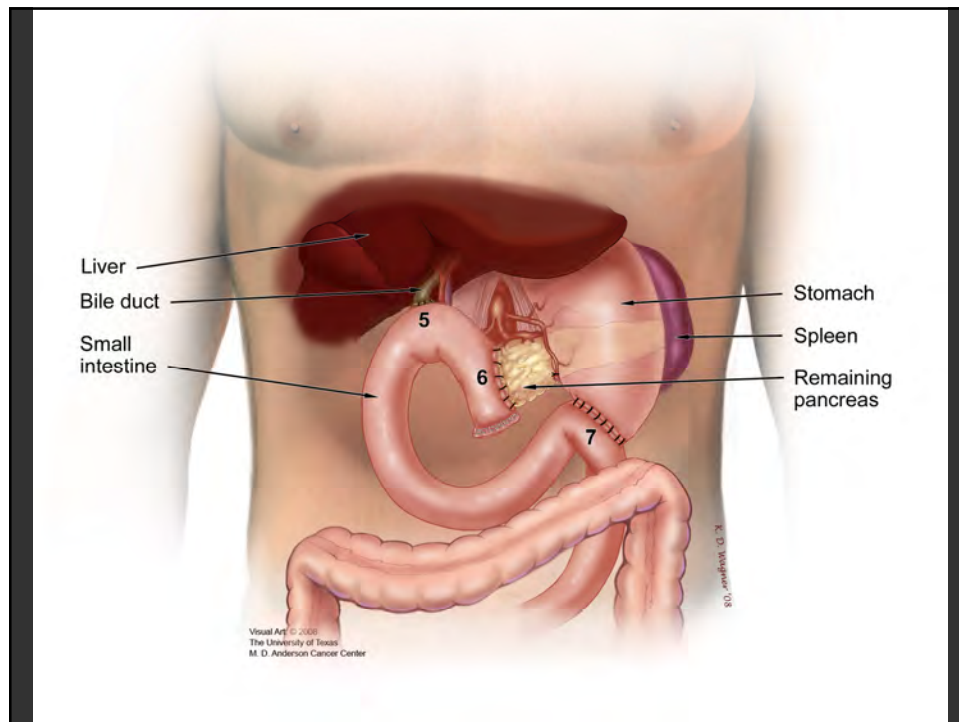
- Diet before surgery
- Diet after surgery
- Common side-effects of surgery
- Nutrition for long-term survivors
 - General eating
 - Vitamin/mineral needs
 - Supplements

Diet Before Surgery

- General healthy eating
- Exercise
- Possible use of immune enhancing liquid nutritional supplement
- Possible participation in ERAS (Enhanced Recovery After Surgery) protocol/study







General Diet Progression

- Clear liquids
- Full liquids or soft solids
- Postop Diet (4-12 weeks after surgery)
- +/- Feeding tube

Postop Diet

- Low fiber
 - Peeled and seeded fruits, cooked vegetables, avoid bran or very high fiber cereals, breads, etc
- “Low fat”/avoid excessive fat
- High protein
- Limit fluids with meals
- Eat 6-8 times a day

Protein

- Poultry without skin, fish, lean meats
- Smooth nut butters, small amounts
- Eggs
- Low-fat: yogurt, milk, cheese
- Soy milk
- Tofu
- Protein powders

Calories

- Bread, pasta, rice, cereal, etc
- Fruits- cooked, canned, or without peel/seeds
- Vegetables- well cooked, peeled and seeded
- Small amounts of fats: avocado, oil, butter, smooth nut butters

Fluids

Most patients require 6 to 12 cups per day of non-alcoholic fluid per day to maintain adequate hydration. (8 oz. = 1 cup)

Water

Tea

Juice (100%)

Sports drinks

Milk or dairy alternatives

Broth

Gelatin

Meal Examples

- Meal 1
 - 1 egg
 - 1 piece of toast
 - 1 tsp butter
 - ½ cup canned pears
- Meal 2
 - 2 oz baked fish
 - ½ cup rice
 - ½ cup cooked carrots
- Meal 3
 - ¾ cup cold cereal
 - ½ cup milk
 - ½ sliced banana
- Meal 4
 - 2 oz roasted chicken (skinless)
 - ½ cup mashed potato
 - ½ cup green beans

Liquid Nutritional Drinks

Regular

- Boost
- Orgain
- Ensure
- Enu

Diabetic

- Glucerna
- Boost Glucose Control

- Home made smoothies
 - Mix in blender
 - Liquid: juice, yogurt, milk, soymilk, etc
 - Fruit and/or cooked vegetables
 - Protein: protein powder, tofu, cottage cheese

Common Side-effects of Surgery

- Dumping syndrome
- Delayed gastric emptying
- Lactose intolerance
- Glucose intolerance/diabetes
- Pancreatic exocrine insufficiency (enzyme insufficiency)

Nutrition After Whipple Procedure

Goals:

- Reduce diarrhea
- Restore adequate nutrition
- Prevent weight loss
- Decrease symptoms

Dumping: symptoms

- Flushing
- Sweating
- Feeling of low blood sugar
- Loose BM

Generally occur within 2 hours of eating.

Dumping

- Limit portion sizes
- Drink liquids between meals
- Avoid foods high in sugar
- Avoid hot liquids
- Add soluble fiber, guar gum

Early Satiety

- Alleviate gas and bloating
- Liquids between meals
- Small servings, more often
- Limit high fat or fried foods
- High fiber foods may be problematic
- Medications

Lactose Intolerance

- May be temporary
- May be able to tolerate low lactose foods
- Provide lactase enzymes prior to a meal—avoid limiting diet

Glucose Intolerance/Diabetes

- Medication
- Customize diet
- Limit refined carbohydrates
- Eat carbs in combination with protein, fiber, and fats



Symptoms of Pancreatic Exocrine Insufficiency

- Feelings of indigestion
- Cramping after meals
- Large amounts of gas
- Foul smelling gas or stools
- Floating stools or greasy/fatty stools
- Frequent stools
- Loose stools/diarrhea
- Unexplained weight loss



How to Optimize Enzymes:

- Take at the beginning and throughout the meal/snack
- Increase until pancreatic insufficiency symptoms are minimized/eliminated
- Find the brand and the dose that works for you and stick with it.

More Information

- Nutrition and Pancreatic Enzymes for Side Effect Management-

<http://youtu.be/bnHkVJ68DcM>

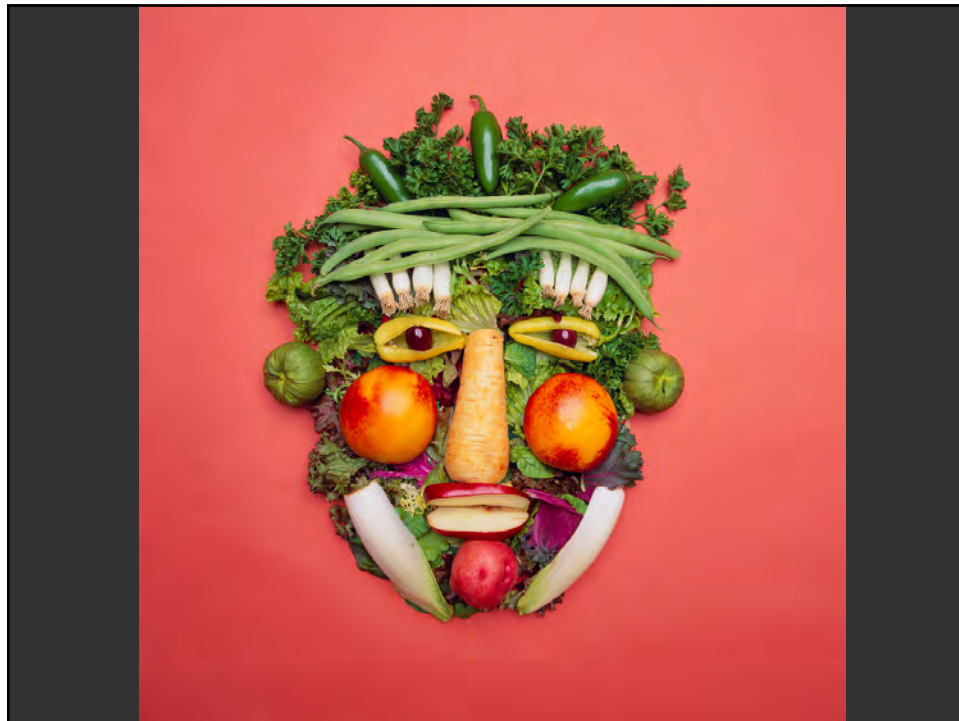
Looking Ahead-Nutrition and Survivorship



AICR Guidelines for Cancer Survivorship

- Be lean but not underweight
- Physically active 30 minutes a day
- Avoid sugary drinks and limit consumption of energy dense foods (high in sugar, low in fiber, and high in fat)
- Variety of fruits, vegetables and whole grains, legumes
- Limit consumption of red meat and processed meats
- Limit alcohol
- Limit salty foods or processed foods high in salt
- Do not rely on supplements to protect against cancer





Pick Me!



- Citrus
- Apples
- Parsley
- Grapes
- Flaxseed
- Walnuts
- Soy
- Dark Green Leafy
- Winter squash
- Broccoli and cruciferous vegetables
- Legumes, dry beans, peas and lentils
- Cranberries
- Blueberries
- Cherries
- Tea
- Whole grains

Maintain Optimal Nutritional Status

- Set goal weight
- Daily MVI and mineral supplement
- For Bone Health: Calcium 500-1000mg/D and Vitamin D at 600-1000IU/D as warranted
- Ongoing monitoring of fat malabsorption
- May need acid reducing medication
- Manage Diabetes Mellitus
 - Diabetes Educator for comprehensive teaching

Monitoring for Vitamin and Mineral Deficiencies

- Vitamin B12
- Folate
- Ferritin
- Vitamin D or 25OHD
- If suspect severe malnutrition or malabsorption, may check Vitamins E, A, K, as well as zinc, copper and selenium



What about other dietary supplements?



Regulatory Standards of Dietary Supplements

- Premarket notifications to the FDA
- Proof of Efficacy
- Proof of Safety
- Premarket FDA approval and post marketing surveillance
- Good Manufacturing Practices
- Disease Treatment Claims

Misconceptions and Risks

- “Pose no risk to the general population” and “rarely or never harmed by supplements”
- “More is better”
- “Natural or Standardized”
- Quality concerns are challenging
- False claims
- Other concerns-surgical or procedural complications



Supplements

- Turmeric
- Omega-3 Fatty Acids



Tumeric/Curcumin

- Studies in advanced pancreatic cancer found to be well tolerated
- Combination with some chemotherapy agents found to be safe
- Poor absorption
- May work against some chemotherapy drugs ie cyclophosphamide
- Watch for drug/herb interactions

Omega 3 Fatty Acids

- Fish oil, krill oil, cod liver oil, flaxseed oil, linseed oil
- Supplementation for cancer prevention is inconclusive
- Preliminary findings that it may support muscle mass, may increase efficacy and tolerability of chemotherapy
- Doses greater than 3 grams may increase bleeding time
- Do not take if you are taking NSAIDS or Glucocorticoids

Resources

- ConsumerLab: independent product testing
www.consumerlab.com
- The National Institutes of Health Office of Dietary Supplements-
<http://dietary-supplements.info.nih.gov>
- M.D. Anderson Complementary/Integrative Medicine Education Resources-
www.mdanderson.org/departments/cimer
- Memorial Sloan Kettering Cancer Center Website
- www.mskcc.org/cancer-care/integrative-medicine
- National Center for Complementary and Alternative Medicine
- www.nccam.nih.gov/

Finding a Dietitian

- How to Find a Registered Dietitian:
 - Request a consult at your cancer center
 - Commission on Dietetic Registration
 - Search: List of Board Certified Specialists in Oncology Nutrition by State- www.cdrnet.org
 - Contact the Pancreatic Cancer Action Network (PanCAN)
 - Contact The Academy of Nutrition and Dietetics www.eatright.org

Cookbooks

- Betty Crocker's Living With Cancer Cookbook (2011)
- What to Eat During Cancer Treatment: 100 Great-Tasting, Family-Friendly Recipes to Help You Cope (2009) by Jeanne Besser
- The Cancer-fighting Kitchen: Nourishing, Big-Flavor Recipes for Cancer Treatment and Recovery (2009) by Rebecca Katz
- One Bite at a Time (2009) by Rebecca Katz
- Eating Well Through Cancer: Easy Recipes & Recommendations During & After Treatment (2006) by Holly Clegg
- The New American Plate Cookbook: Recipes for a Healthy Weight and a Healthy Life (2005) by The American Institute for Cancer Research

Reminder: Check online for last months
webinar on Nutrition and Pancreatic
Enzymes for Side Effect Management

<http://youtu.be/bnHkVJ68DcM>

Ready to answer questions...



Thank you for your participation.

If you have questions, please contact our Patient and Liaison Services
(PALS) program at
(877) 272-6226 or e-mail pals@pancan.org.

www.pancan.org or wagehope.org

