

<b>Prepared For:</b>		<b>Date:</b>	
<b>Prepared By:</b>		<b>Contact:</b>	

## Whipple Surgery Nutrition Therapy

This surgery removes part of the pancreas, intestine, stomach, bile duct, and all of the gall bladder. As a result of the surgery, the amount of food you can eat at one time and how your body handles food will change.

### Goals

- To provide good nutrition after surgery by eating adequate amounts of a variety of foods
- To promote healing after surgery
- To prevent or decrease problems related to eating
- To prevent too much weight loss

### Tips

### Eating Tips

- Eat small, frequent meals (5 to 6 meals per day). After surgery, you will feel full quickly and will be able to eat only small amounts at a time.
- Stop eating when you feel full.
- Eat slowly and chew your foods very well.
- Avoid foods that are known to cause you problems. Otherwise, eat the foods you like. Symptoms usually get better over time.
- Eat a variety of foods.
- To help with healing, eat foods high in protein, such as tender meats, poultry, fish, dairy products, eggs, peanut butter, and beans. Drink supplements such as Boost, Ensure, or Carnation Instant Breakfast.
- At first, you may have problems tolerating fatty foods.
- For the first few weeks, avoid drinking large amounts of fluid with meals. Small sips are OK. Drink most fluids 30 minutes before and after meals. Drink 48 to 64 ounces (6 to 8 cups) of fluid throughout the day.
- Try not to lose weight, even if you are overweight, because it can make you feel weaker and can delay healing. Your registered dietitian nutritionist can help you with ideas for maintaining your weight if needed.

# Possible Problems and Tips

## Stomach Empties Too Slowly after Eating

This may occur in one-quarter to half of patients after surgery, and it usually gets better within a few weeks to months.

### Symptoms

Nausea, vomiting of undigested food, bloating, early fullness, and abdominal pain

### Tips

- Eat small, frequent meals.
- Chew foods very well.
- Liquids may work better than solids.
- Low-fat, low-fiber soft foods may work better than high-fat, high-fiber tough foods.
- Take a walk after eating to help move food through your system faster.
- Ask your doctor if you will need medicine to help your stomach empty faster.

## Dumping Syndrome

Early symptoms may occur 30 to 60 minutes after eating and are caused when food from the stomach (especially sugar) passes too quickly into the intestine.

### Symptoms

Dizziness, sweating, fast heart rate, bloating, nausea, and diarrhea (30 to 60 minutes after eating). Later symptoms (2 to 3 hours after a meal) include feelings of weakness, hunger, and fast heart rate.

### Tips

- Avoid foods high in sugar (not more than 12 grams of sugar per serving).
- Drink fluid 30 minutes before or after meals, not with meals.
- Eat 5 to 6 small meals per day.
- Lie down for up to 30 minutes after meals.
- Try foods high in soluble fiber, including apples, apricots, bananas, blackberries, nectarines, oranges, grapefruit, pears, plums, strawberries, tangerines, asparagus, broccoli, brussels sprouts, carrots, kale, okra, spinach, mustard greens, sweet potato, oatmeal, oat bran, beans (black, kidney, lima, navy), or commercial fiber supplements.

## Decreased Pancreas Function

Caused by disease of the pancreas or the removal of part of the pancreas.

### Symptoms

Changes in stools (foul smelling, oily, frothy, very light in color) and weight loss even though you are eating plenty of calories.

### Tips

- Take pancreatic enzymes per your doctor's orders, just before meals and snacks.
- A low-fat diet is usually not needed if you are taking pancreatic enzymes. However, if your doctor advises you to follow a low-fat diet to see if symptoms improve, be sure to get in enough calories to prevent weight loss.

## Diabetes

Caused by decreased insulin production by the pancreas after surgery.

### Tips

- Monitor your blood glucose (sugar) as advised by your doctor
- Control your blood glucose through diet and medicine as prescribed by your doctor.
- Your doctor, registered dietitian nutritionist, or diabetes educator will teach you about the diet that will be right for you.

## Low Nutrient Levels

Caused by not eating enough nutrients or by not digesting or absorbing nutrients normally after surgery.

Most common nutrients: iron, calcium zinc, copper, selenium, vitamins A, E, D, and K.

### Tips

- Eat a variety of foods daily.
- Take a daily vitamin/mineral supplement.
- Follow your doctor's advice about taking extra supplements. Extra calcium (500 to 1,000 milligrams per day) and vitamin D (600 to 1,000 units per day) may be suggested by your doctor.

## Lactose Intolerance

Caused by a decrease in the enzyme in your intestine that digests lactose.

### Symptoms

Gas, bloating, or diarrhea after drinking milk or eating milk products

### Tips

- Try lactose-free milk choices (such as soy milk or almond milk).
- Try reduced-lactose products (such as Lactaid or Dairy Ease products).
- Try lactase enzyme tablets when you eat dairy products.
- Try yogurt or cheese instead of milk.

## Bacteria Growth in the Small Intestine

### Symptoms

Nausea, gas, bloating, diarrhea, low vitamin B-12 and high folate in the blood.

### Tip

Ask doctor if treatment with antibiotics will be needed.

### Foods Recommended

Tolerance to foods usually improves over time. You may eat foods that you like and can tolerate.

Food Group	Foods Recommended in the First Few Weeks
Dairy	Milk products as tolerated lactose-free or lactose-reduced products, sugar-free yogurt, sugar-free pudding, cheese, sugar-free ice cream
Protein	Tender/soft meat, poultry, beans, eggs, smooth peanut butter, cheese, cottage cheese
Grains	Crackers, pasta, plain breads and rolls, pretzels, rice, unsweetened cereals
Vegetables	Cooked vegetables, vegetable juice
Fruits	Soft fresh fruit, fruit canned in natural juice, unsweetened fruit juice
Desserts	Low-calorie gelatin, low-calorie popsicles, sugar-free desserts
Beverages	Noncarbonated/sugar-free or low sugar beverages, water, diluted fruit juice
Oral supplements	No added sugar Carnation Instant Breakfast, Glucerna, Boost Glucose Control, Ensure, Boost (other options also available)

Food Group	Foods Recommended in the First Few Weeks
Condiments	Salt, pepper, mild-flavored sauces and gravies, other spices as tolerated, artificial sweeteners, low-calorie jelly

<b>Food Group</b>	<b>Foods That May Cause Distress in the First Few Weeks</b>
Dairy	Cocoa mixes, regular ice cream, chocolate milk, sweetened custard or pudding, regular yogurt, milkshakes
Protein	Fried meats, lunch meats, bologna, salami, sausage, hot dogs, bacon, tough/stringy meats, nuts, chunky peanut butter
Vegetables	Raw vegetables or fried vegetables Cooked vegetables including beets, broccoli, brussels sprouts, cabbage, mustard and turnip greens, cauliflower, corn, potato skins
Fruits	Tough fresh fruits, dried fruits, canned or frozen fruits in syrup, sweetened juice
Sweets	Sugar-coated cereals, doughnuts, sweet rolls, regular popsicles, gelatin, high-sugar desserts, cake, pie, sherbet
Beverages	Carbonated beverages (even diet) due to gas formation, regular soft drinks, sugared drink mixes, sugar-containing fruit-flavored beverages, sweetened iced tea or similar drinks, alcohol, regular coffee
Condiments	Sugar, jam, jelly

## Whipple Surgery Sample 1-Day Menu

<b>Breakfast</b>	2 scrambled eggs Grated cheese, melted (on eggs) 1/2 cup oatmeal 1/2 cup applesauce
<b>Morning Snack</b>	8 ounces yogurt 1/2 cup sliced peaches
<b>Lunch</b>	1/2 sandwich made with: 2 oz sliced turkey, lettuce, sliced tomato, mayo 1/2 cup blueberries 1/2 cup cottage cheese (low-fat)
<b>Afternoon Snack</b>	4 graham crackers 2 tablespoons peanut butter 1 small banana
<b>Evening Meal</b>	3 ounces baked chicken 1/2 cup mashed potatoes w/ gravy Gravy, beef, canned, ready-to-serve 1/2 cup mixed vegetables w/ margarine Margarine Spread, approximately 48% fat, tub
<b>Evening Snack</b>	1 cup pudding 5 vanilla wafers

## Notes