

Diet after Whipple Procedure

A Whipple procedure (pancreaticoduodenectomy) involves removing part of the pancreas, part of the small intestine, the gallbladder, part of the common bile duct, and sometimes part of the stomach. This means you may have trouble digesting the food you eat. Here are some strategies that can help make sure you get the nutrition you need.

Basic Principles:

- 1) Nutrition after Surgery:** In the hospital you will start on a clear liquid diet and then progress to solid foods. When you start eating solid food it is important to choose well-balanced meals. Include a variety of fruits, vegetables, proteins, and whole grains.
- 2) Enzymes:** Normally the pancreas makes enzymes that break down the foods you eat. Because part of your pancreas has been removed, your doctor may need to prescribe enzyme pills to help you digest your foods. It is important to take enzymes at the beginning of every meal and snack. Monitor your stools and let your doctor know if your stool is loose, oily, floating or foul-smelling. These are signs that your doctor may need to adjust your enzyme dose.
- 3) Low Fat:** Avoid high-fat, greasy or fried foods. It may be hard for your body to digest fat after a Whipple procedure. You can lower your fat intake by limiting added fats such as butter, oil, margarine and mayonnaise and by avoiding fried foods. Choose baked, boiled, steamed, or grilled foods.
- 4) Protein:** Make protein a priority. Eat protein with each meal. Good sources of protein include lean meat, skinless poultry, fish, eggs, yogurt, milk, cottage cheese, tofu, soy products and smooth nut butters.
- 5) Fluid Intake:** It is important to drink plenty of liquids. Drink at least 8 cups of fluid per day. You can choose beverages with calories, vitamins and minerals to help meet your nutrition goals. Try drinking homemade smoothies or nutrition supplement drinks. If you get full easily, you can drink fluids between meals instead of with meals. Although fluids are important, do not fill up on fluids if your appetite is poor. Be sure to avoid all alcoholic beverages.
- 6) Vitamins:** We recommend that you take a daily multivitamin with minerals to help you get the nutrients your body needs. Additional supplements including calcium and vitamin D may be recommended by your doctor or dietitian. Ask your doctor to check your vitamin D level.

Symptom Management:

- 1) **Feeling full:** Some people may feel full easily after a Whipple procedure. To help with this, try to eat 5-6 small meals per day about every 2-3 hours. Avoid high-fat foods such as cheese, fatty meats and deep fried foods.
- 2) **Nausea:** If you have nausea, it may help to eat smaller portions throughout the day. Eat slowly. Try crackers, toast, cereal, oatmeal and other plain, dry foods. Avoid foods with strong odors. When you are nauseated and feel like you might vomit, you may want to avoid eating your favorite foods. Vomiting those items could turn you off from eating them again.
- 3) **Elevated blood sugar:** Some patients have high blood sugar after the Whipple procedure. Normally the pancreas makes insulin to help control blood sugar levels. Because part of your pancreas has been removed, you may not have enough insulin to control your blood sugar. If you have high blood sugar, you will need to limit concentrated sweets. These include sugar, honey, syrups, juice, soda, candy, cookies, pastries and other foods that are high in sugar.
- 4) **Weight loss:** If you are having trouble maintaining your weight you can add nutritious snacks, smoothies or a nutrition supplement drink to your diet.
- 5) **Dumping syndrome:** There are two types of Whipple procedures; classic where the pylorus is removed, or the pylorus preserving method. The pylorus is the lower part of the stomach. It helps to slow the movement of food from the stomach to the small intestine. Some people experience dumping syndrome after a classic Whipple procedure when the pylorus has been removed. Symptoms of dumping syndrome include dizziness, rapid heartbeat, sweating, cramping and diarrhea. Symptoms may improve if you limit desserts, sweets, sugary foods, juices and soft drinks. Dry meals may be better tolerated. Have your fluids and beverages between meals instead of with meals.
- 6) **Lactose Intolerance:** Some people will make less of the enzymes that digests lactose (natural sugar in milk and milk products) as a result of a Whipple surgery. Symptoms of lactose intolerance include gas, bloating, or diarrhea and will usually occur within 30 minutes to 2 hours after you eat or drink milk products. If you suspect lactose intolerance experiment with avoiding milk products for 2-3 days to see if your symptoms improve. If lactose is contributing to your symptoms choose lactose-free milk choices (such as soy milk or almond milk) and reduced-lactose products (such as Lactaid or Dairy Ease products). Fermented milk products such as yogurt and kefir and hard cheeses may be better tolerated.

- 7) **Bacteria Growth in the Small Intestine:** Caused by an overgrowth of bacteria in the small intestine as a result of changes to digestive tract from surgery. Symptoms include nausea, gas, bloating, diarrhea, low vitamin B-12 and high folate levels in the blood. If you have these symptoms ask your doctor about being tested for small intestinal bacteria overgrowth (SIBO) or if you need treatment with antibiotics.

Long-term Post Whipple Nutritional Guidelines:

1. You may need to continue to avoid or limit fried, greasy and high fat foods or eat them in smaller quantities.
2. Consume fat (as tolerated) from healthy sources such as olive oil, nuts, seeds and avocados.
3. Aim for at least 2.5 cups of vegetables and fruits per day.
4. Include whole grain foods such as oatmeal, brown rice, whole grain breads and quinoa.
5. Limit red meat and avoid processed meats such as bacon, sausage and hot dogs.
6. Limit alcohol to no more than 1 drink per day for women and 2 drinks per day for men.
7. Take pancreatic enzymes if needed.
8. Engage in physical activity daily