

Nutrition Guidelines for Chronic Pancreatitis Patient Education

The pancreas is an organ that:

- Produces pancreatic enzymes to help digest (break down) food in the small intestine for absorption
- Makes hormones (such as insulin) to help control blood sugars

Chronic pancreatitis is ongoing inflammation of the pancreas. Symptoms can be worse after eating. Symptoms include:

- Abdominal pain
- Nausea
- Vomiting
- Weight loss
- Fatty stools (stools may also float and/or have a foul odor)

Malabsorption of nutrients can occur from poor digestion of food (due to reduced pancreatic enzyme activity), which will result in nutrients passing into the stools. This is seen especially with fat and fat soluble vitamins (A, D, E) as digestion of fat is highly dependent on pancreatic enzymes.

In some cases, diabetes can develop if the pancreas is not able to make enough insulin to help control blood sugars, so blood sugars stay high.

Nutritional Guidelines

- Follow a low fat diet, which for chronic pancreatitis is often restricted to 50 grams of fat, but could also range between 30-50 grams of fat depending on tolerance.
- If you have diabetes, eat recommended serving sizes of low fat carbohydrates to help control blood sugars (low fat/non fat dairy, fruits, vegetables, whole grains, beans, lentils etc). Information on serving sizes is available.
- Take pancreatic enzymes as prescribed by your doctor to treat malabsorption. Take the enzymes before each meal and snack. They will not work if taken at the end of the meal.

Low Fat Diet Tips

- Eat 4-6 small meals throughout the day
- Spread out your fat intake throughout the day
- Use butter, margarine and cooking oils sparingly
- Bake, grill, roast and/or steam foods. Do not fry or stir fry foods.
- Include fruits, vegetables, whole grains, low fat/non fat dairy **daily** in your diet
- Add protein to each meal and snack (lean beef, chicken without skin, fish, low fat/non fat dairy, egg whites, beans, soy etc)
- Avoid all alcohol and foods made with alcohol
- Read food labels. Choose foods labeled "*low fat*", "*non fat*", "*fat free*" and "*light*"

Foods

Food Groups	Foods Recommended	Foods to Limit
Meats, Poultry, Fish, Eggs	<u>baked, broiled, grilled or steamed:</u> lean cuts of meats/poultry(without skin)/fish; canned tuna in water, eggs, egg whites, low fat/non fat deli meat slices	fried, fatty or heavily marbled meats/poultry(withskin), organ meats (liver etc), duck, fried eggs, bacon, canned tuna in oil, whole fat processed meats: hot dogs, salami, sausages, etc
Dairy	<u>low fat/non fat dairy:</u> milk, cheese, cottage cheese, cultured yogurt, ice cream, frozen yogurt, sour cream	creamy/cheesy sauces, cream, fried cheese, whole fat dairy, milkshakes, half and half
Meat, Dairy Alternatives	almond/rice milk and its products, beans, lentils, soy products, tofu	coconut milk, nuts, nut butters, refried beans, fried tofu
Grains	whole grains: bagels, breads, bran, buns, hot/cold cereals, couscous, low fat crackers, noodles, pancakes, pastas, light butter popcorn, English muffins, rice, corn or flour tortilla, waffles	fried grains, biscuits, croissants, french fries, fried potato or corn chips, granola, fried rice, sweet rolls, muffins
Fruits	fresh, frozen and canned fruits	avocado, fried fruits
Vegetables	fresh, frozen and cooked vegetables	fried/stir fried vegetables
Desserts	applesauce, angel food cake, gelatin, fruit ice, popsicles, puddings, sherbet, sorbet, small amounts of chocolate	fried desserts, brownies, cake, candy, coconut, cookies, custard, donuts, pastries, pies
Beverages	coffee, fruit and vegetable juices, hot chocolate, sport drinks, tea	beverages with cream, eggnog, sodas
Seasonings, Condiments	spices/herbs (as tolerated), jam, butter/margarine/cooking oils (small amounts), broth, honey, low fat/light salad dressings, maple syrup, low fat/fat free mayonnaise, non dairy creamer, mustard, salt, sugar	lard, meat drippings, regular mayonnaise, olives, seeds, regular salad dressings, shortening, tahini paste

MCT oil and Nutritional Supplements (use if you have or at risk of losing weight)

MCT oil

- MCT (Medium Chain Triglyceride) is a type of fat that is absorbed directly into the blood without the need for pancreatic enzymes to break it down
- It is found in coconut and palm kernel oils
- Mix MCT oil into your foods. Start with 1-3 TBSP of MCT oil total for the day

Nutritional Supplements

- Drink fat free high calorie and protein juice nutritional supplements such as Ensure Clear or Resource Juice Breeze at least twice daily
- MCT rich nutritional supplements such as Peptamen or Vital are available too

50 Gram Fat Sample Menu

Meal	Food Choices
Breakfast	1 egg omelet with spinach (protein, vegetable) 1 slice sourdough toast with 1 teaspoon margarine (grain) ½ cup cream of wheat (grain) ½ cup of blueberries (fruit) Tea or coffee
Snack	Fruit smoothie: 1 cup almond or soy milk blended with 1 cup low fat vanilla yogurt and banana (dairy substitute, dairy, fruit)
Lunch	Turkey and cheese sandwich: 2 slices whole wheat bread, 2 oz lean turkey breast, 1 slice low fat Swiss cheese, 1 TBSP low fat mayonnaise, mustard, tomato slices (protein, grain, dairy) ½ cup apple juice (fruit)
Snack	1 cup low fat cottage cheese (dairy) 1 cup cut up cantaloupe cubes (fruit) Ensure Clear Nutritional Supplement
Dinner	3 oz broiled fish (protein) ½ cup brown or white rice (grain) ½ cup cooked carrots (vegetable) 1 soft, white dinner roll (grain) 1 teaspoon margarine (fat) Tea or coffee
Snack	3 graham cracker squares (grain) ½ cup strawberries (fruit) 1 cup low fat 1% milk (dairy)

Food Labels

Food labels can provide valuable information to help you follow a low fat diet.

Low Fat Milk 1%

Nutrition Facts	
Serving Size 1 cup (240 ml)	
Servings Per Container 16	
Amount Per Serving	
Calories 105	Calories from Fat 21
% Daily Value	
Total Fat 2g	4%
Saturated Fat 2g	8%
Trans Fat 0g	
Cholesterol 12mg	4%
Sodium 107mg	4%
Total Carbohydrate 13g	4%
Dietary Fiber 0g	0%
Sugars 13g	
Protein 8g	
Vitamin A 10%	Vitamin C 0%
Calcium 30%	Iron 0%
*Percent Daily Values are based on a 2000 calorie diet. Your daily values may be higher or lower depending on your calorie needs:	
	Calories 2000 2500
Total Fat	Less Than 65g 80g
Saturated Fat	Less Than 20g 25g
Cholesterol	Less Than 300 mg 300 mg
Sodium	Less Than 2400 mg 2400 mg
Potassium	3500 mg 3500 mg
Total Carbohydrates	300g 375g
Dietary Fiber	25g 30g
Calories per gram:	
Fat 9	Carbohydrate 4 Protein 4

Tips:

The food label included here is an example of a low fat food.

- Look for the "total fat" in grams.

The grams of fat listed on the label is for one standard serving. If you eat two servings, you will get twice as many grams of fat.

Definition of Terms on Food Labels

Low Fat

- Foods labeled "*low fat*" have no more than 3 grams of fat per serving

Fat Free/Non Fat

- Foods labeled "*non fat*" or "*fat free*" have less than 0.5 gram fat per serving

Light

- Foods labeled "*light*" have 50% less fat than the regular version of the product

Resources

"Nutrition Treatment of Deficiency and Malnutrition in Chronic Pancreatitis: A Review"

Nutrition in Clinical Practice August 2010

"Pancreatitis Nutrition Therapy"

Nutrition Care Manual (Academy of Nutrition and Dietetics)

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Direct inquiries to Digestive Health Center at Stanford Hospital and Clinics

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