



Very Low Fat Diet for Chyle Leak

Chyle is a milky fluid that contains lymph and fat. It is made in the small intestine during digestion. Lymph is a watery fluid that carries nutrients like protein, salts and sugar. The lymphatic system sends chyle into the blood stream to nourish your body. This system also collects extra fluid from your body to return it to the blood and helps your body fight infection.

If there is a **chyle leak**, the chyle can build up and cause swelling and other problems in your body. The leak may happen after an injury or surgery to the chest or neck. Cancer of the lymph nodes, called lymphoma, can also cause a leak.

How a very low fat diet helps

When fat is reduced in the diet, the body makes less chyle. With less chyle, there is less fluid to leak into the body. The leak may heal and stop the problem.

As part of your treatment, you are to follow a very low fat diet for 1 to 3 weeks or as directed by your doctor. **Your goal is to eat as little fat as possible and no more than 20 grams of fat per day.** Eat and drink only fat free or very low fat foods and beverages. The small amount of fat allowed in your diet should not be eaten in one serving. Try to spread the little fat in your diet out over the day.

If this diet helps your condition, your doctor will tell you when you can start to add foods with fat back into your diet. If your condition does not improve, your doctor will talk to you about other treatment options.

Special Instructions

- **Talk with your doctor and dietitian about taking a multivitamin and the use of protein and calorie supplements.** It can be hard to meet the nutrition needs of your body on this very low fat diet.
- **Read all food labels for fat content.**
 - **Eat foods labeled fat free**, where the total fat for a serving on the product's Nutrition Facts label is 0 to 0.5 grams (g) of fat per serving.
 - **Limit serving sizes of foods** to limit fats eaten. For example, if you eat 4 servings of a food that has 0.5 grams of fat, you have eaten 2 grams of fat.
- All healthy foods are not fat free. For example, fish and nuts are too high in fat to be included in a fat free diet and should be avoided.
- Avoid using fat when cooking and preparing foods. Trim fat from meats and bake, steam or broil as a cooking method. Choose very low fat meats (see examples on the next page) and do not add butter or oils for cooking.



MCT (medium chain triglyceride) oil or powder

MCT oil or powder is a special kind of fat that your body can absorb by bypassing the lymphatic system. MCT is safe to eat on a very low fat diet because it will not cause chyle to build up in the body. This oil or powder is expensive and some people do not like the taste. It may be found in health food stores or ordered online. Recipes using MCT oil can be found at: www.fodsupport.org/pdf/Lowfat_Recipes_with_MCT_Oil.pdf.

Foods that are very low in fat

This table gives you ideas of foods to eat. Discuss your calorie needs and serving sizes with your dietitian or other members of your health care team. Fat content can vary with product or brand, so be sure to check food labels.

Food group	Recommended	Avoid
Milk and dairy products	<ul style="list-style-type: none"> Fat free or nonfat dairy products, including milk, cheese, sour cream, cream cheese, cottage cheese, yogurt, frozen yogurt and ice cream Carnation Breakfast Essentials made with fat free milk 	<ul style="list-style-type: none"> Avoid, low fat or full fat dairy products and any creamers that contain fat Do not mix Carnation Breakfast Essentials with whole milk
Meat and protein sources	<ul style="list-style-type: none"> Fat free egg substitutes, egg whites or Egg Beaters White poultry meat without the skin and trimmed of any fat, Lean fish such as cod, perch and halibut Fat free lunch meat and hot dogs Fat free vegetable burgers Beans that are boiled or canned without fat Fat free refried beans 	<ul style="list-style-type: none"> Avoid egg yolks Avoid fatty cuts of meat, dark poultry meat and fatty fish like salmon Avoid meats that are fried or cooked in any type of fat Avoid nuts and seeds, such as peanuts, peanut butter or other nut butters
Fruits	<ul style="list-style-type: none"> Mostly fresh, frozen or canned Fruit juice Jelly and fruit spreads Raisin or other fat free dried fruit 	<ul style="list-style-type: none"> Avoid coconut, avocados and canned fruit pie filling
Vegetables	<ul style="list-style-type: none"> Plain fresh, frozen or canned vegetables Vegetable or tomato juice Fat free tomato sauce or paste 	<ul style="list-style-type: none"> Avoid olives and avocados Avoid fried vegetables or vegetables canned in oil Avoid any vegetables with butter, cream sauce, cheese sauce or other sauce or toppings that have fat in them

Food group	Recommended	Avoid
Breads, cereals and starches	<ul style="list-style-type: none"> • Fat free breads, crackers, rice cakes, muffins and pasta • Fat free cereals, such as Corn Flakes, Rice Krispies, Puffed Wheat, Puffed Rice, Special K and Shredded Wheat • White potatoes, yams or sweet potatoes • Plain, air-popped popcorn 	<ul style="list-style-type: none"> • Avoid all breads and crackers that contain fat or nuts or are topped with butter • Avoid all cereals that contain fat or nuts • Avoid microwave popcorn
Soups	<ul style="list-style-type: none"> • Fat free broths, consommés, bouillon • Soups made with fat free broth, skim milk or evaporated skim milk 	<ul style="list-style-type: none"> • Avoid all soups with cream, milk with fat, cream, butter, oils or cheeses
Beverages	<ul style="list-style-type: none"> • Decaffeinated or regular coffee or tea (use nonfat creamer) • Water • Carbonated beverages • Lemonade or fruit juice • Sports drinks like Gatorade • Enlive juice drink or Resouce Breeze 	<ul style="list-style-type: none"> • Avoid drinks with dairy products that have fat • Avoid coffee specialty drinks • Avoid supplements that have fat in them such as Boost, Chocolate Carnation Breakfast Essentials, Ensure or Glucerna
Condiments	<ul style="list-style-type: none"> • Fat free salad dressing or fat free mayonnaise • Yellow mustard, store bought Dijon mustard, barbeque sauce, hot sauce, soy sauce • Herbs and spices • Honey, maple syrup, sugar 	<ul style="list-style-type: none"> • Avoid all regular salad dressings, mayonnaise, sandwich spreads, cream sauces and gravy • Avoid all vegetable oils, butter, margarine, lard, cream • Avoid all condiments from restaurants unless you know for certain they are fat free. Dijon mustards from restaurants often contain fat.
Desserts	<ul style="list-style-type: none"> • Fat free pudding, whipped cream, popsicles, nonfat frozen yogurt, fat free sherbet, fat free ice cream and fruit ices • Desserts and cookies that are fat free • Fruits • Gelatin desserts • Hard candy, jelly beans or gumdrops 	<ul style="list-style-type: none"> • Avoid pastries, cakes, ice cream with fat, doughnuts, pudding made with whole milk, and chocolate

Sample menu

Below is a sample menu for this diet. You may need more or less food based on your calorie needs. Ask your dietitian if you have questions.

Breakfast	<ul style="list-style-type: none"> • 1 to 2 cups fat free acceptable cereal • 1 cup fat free milk • 1 to 2 slices toast with jelly • 4 ounces orange juice • Coffee or tea (no cream but fat free milk or nonfat creamer is okay)
Snack	<ul style="list-style-type: none"> • 6 ounces fat free yogurt • Medium banana
Lunch	<ul style="list-style-type: none"> • 1 fat free veggie burger on fat free bun • Mixed green salad with cucumber, tomatoes and 2 tablespoons fat free salad dressing • ½ to 1 cup fat free cottage cheese • ½ to 1 cup fat free pudding • Medium apple • Any fat free beverage like juice, lemonade, tea or coffee
Snack	<ul style="list-style-type: none"> • 1 packet Carnation Breakfast Essentials with 8 ounces fat free milk
Dinner	<ul style="list-style-type: none"> • 3 ounces grilled skinless chicken breast (no fat on grill) • Medium to large baked white or sweet potato with fat free plain yogurt or fat free sour cream • ½ to 1 cup steamed vegetables such as baby carrots and broccoli • ½ to 1 cup mixed fresh or canned acceptable fruit • Any fat free beverage like juice, lemonade, tea, or coffee
Snack	<ul style="list-style-type: none"> • 2 cups air popped popcorn or 1 ounce fat free pretzels • Any fat free beverage like juice, lemonade, tea or coffee

Talk to your doctor or health care team if you have any questions about your care.

For more health information, go to patienteducation.osumc.edu or contact the Library for Health Information at 614-293-3707 or health-info@osu.edu.