

## Very Low Fat Diet for Chyle Leaks

Chyle is a fluid that is made by your intestines when you eat fat. Sometimes when there is an injury to the lymphatic system during surgery, chyle can leak out and can build up in places it is not supposed to be, causing problems.

As part of the treatment for a chyle leak, your physician may tell you to follow a very low fat diet for a period of time. When you eat less fat, your body makes less chyle, and the leak is able to heal. The goal is to eat and drink as little fat as you can. This handout will help you figure out which foods and drinks are safe.

If your doctor tells you to stay on this diet for more than 3 weeks, you will need to meet with a Registered Dietitian to make sure that you do not lose weight and that you meet all of your nutrient requirements.

- On the table below, “FF” means 0.5 grams of fat or less *per serving*. You may have to eat less than you normally would of some foods to stay at this low level of fat. Check the Nutrition Facts label on your foods.
- Items listed in the “Foods Allowed” column must be cooked, prepared, and served without butter, margarine, oil, meat, nuts, or other items from the “Foods Not Allowed” column.

	Foods Allowed	Foods Not Allowed
Breads, Cereals, and Starches	<ul style="list-style-type: none"> <li>• Regular wheat sandwich bread</li> <li>• FF crackers, rice cakes, FF cold cereals (without nuts), FF muffins (without nuts)</li> <li>• Air popped popcorn, white potatoes, sweet potatoes, yams (no butter, margarine, oil, or meat added)</li> </ul>	<ul style="list-style-type: none"> <li>• Sweet breads and rolls</li> <li>• Hawaiian bread</li> <li>• Cereals with nuts</li> <li>• Breads, cereals, potatoes, popcorn, or rice topped with butter</li> <li>• Microwave popcorn</li> </ul>
Vegetables	<ul style="list-style-type: none"> <li>• Plain fresh, frozen, or canned vegetables (<b>NO</b> butter, margarine, oil, or meat added)</li> <li>• Vegetable or tomato juice</li> <li>• FF tomato sauce or paste</li> <li>• Pickles</li> </ul>	<ul style="list-style-type: none"> <li>• Vegetables in butter, margarine, cream sauce, cheese sauce, or with nuts or other sauce or toppings</li> <li>• Vegetables canned in oil</li> <li>• Fried vegetables</li> <li>• Vegetables seasoned with fatback, bacon, pancetta, or other meats</li> </ul>
Fruits	<ul style="list-style-type: none"> <li>• Most fresh, frozen or canned fruit</li> <li>• Raisins, dried cranberries, other dried fruits</li> <li>• Fruit juice</li> <li>• Jelly and fruit spreads</li> </ul>	<ul style="list-style-type: none"> <li>• Canned fruit pie fillings</li> <li>• Avocados</li> <li>• Olives</li> <li>• Coconuts</li> </ul>

	Foods Allowed	Foods Not Allowed
Dairy	<ul style="list-style-type: none"> <li>• FF dairy products, including: milk, cheese, sour cream, cream cheese, cottage cheese, yogurt, frozen yogurt, ice cream</li> <li>• Carnation Breakfast Essentials® <b>powder</b> made with FF milk</li> </ul>	<ul style="list-style-type: none"> <li>• Low fat or full fat dairy products</li> <li>• Fat-containing creamers</li> <li>• Ready to drink Carnation Breakfast Essentials</li> </ul>
Meat & Meat Alternatives	<ul style="list-style-type: none"> <li>• Lean fish such as light tuna in water, fillet of: cod, Alaskan pollock, perch, halibut</li> <li>• EggBeaters® or egg substitute, egg whites</li> <li>• White meat chicken with skin removed, fat trimmed, prepared without oil, margarine, or butter</li> <li>• Beans prepared without added fat (limit to ½ cup per day): black, pinto, kidney, white, lima (butter beans), lentils</li> <li>• FF refried beans</li> <li>• FF varieties of veggie burgers</li> <li>• FF luncheon meat, FF hot dogs</li> </ul>	<ul style="list-style-type: none"> <li>• Whole eggs</li> <li>• Canned meats in oil</li> <li>• Other meat</li> <li>• Nuts and seeds</li> <li>• Peanut butter, other nut butters</li> <li>• Soybeans, edamame, tofu</li> </ul>
Desserts	<ul style="list-style-type: none"> <li>• Gelatin</li> <li>• FF Chewing gum, hard mints, FF jelly candy, FF gummy candy, licorice</li> <li>• FF frozen juice bars or popsicles, sorbet, Italian ice</li> <li>• FF animal crackers, FF cookies</li> <li>• FF Cool Whip</li> <li>• FF creamers</li> </ul>	<ul style="list-style-type: none"> <li>• Any dessert made with butter, margarine, oil, low fat or full fat dairy products, whipped cream, Cool Whip</li> <li>• Chocolate</li> </ul>
Beverages	<ul style="list-style-type: none"> <li>• Fruit juices/nectars, fruit beverages, lemonade</li> <li>• Soft drinks, tea, coffee (no cream)</li> <li>• Gatorade®, sports drinks</li> </ul>	<ul style="list-style-type: none"> <li>• Beverages made with low fat or full fat dairy products</li> </ul>
Condiments and misc.	<ul style="list-style-type: none"> <li>• FF salad dressing, ketchup, barbeque sauce, mustard, soy sauce, hot sauce, FF salsa, relish, syrup</li> <li>• FF Broth and soups</li> </ul>	<ul style="list-style-type: none"> <li>• Mayonnaise (including low fat), butter, margarine, oils, lard, fatback, regular salad dressing</li> </ul>

### Need more Calories? Try these fat free nutrition supplements:

- Try the make-at-home fat-free smoothie recipes provided in this handout
- Boost Breeze®
- Ensure Clear Nutrition Drink®
- Carnation® Instant Breakfast Essentials Powder™ with 8 oz fat-free milk (not ready to drink bottles)
- Jamba® At Home Smoothies. Almost all are fat free, but check the labels

## Need Extra Protein?

If your doctor or dietitian tells you that you need to add protein to your diet, these foods and products will add protein without adding fat.

Product	Serving Size	Protein (g)
Egg Beaters®	¼ cup	6
Better n'Eggs®	¼ cup	5
Egg whites, separated, cooked or pasteurized	2	7
Powdered egg whites	1 tablespoon	11.5
Egg white (Bob's Red Mill®)	2 teaspoon	3
Just Whites®(Deb EL™)	2 teaspoon	3
Fat free luncheon meat	1 oz	6
Extra Light Tuna (in water)	3oz	20
Fat-free Soy Burger or Meat Substitute Patty	1 patty	8-13g
Fat free milk	8 oz	8
Non-fat dry milk powder	3 tablespoon	10
Non-fat cheese	1 oz	8
Evaporated skim milk	½ cup	9
Non-fat cottage cheese	½ cup	13
Non-fat yogurt (plain)	8 oz	12
Bernard® High protein broth	1 cup	10
Bernard® High protein gelatin	½ cup	12
Bernard® High protein egg whites	1 tablespoon	5
UNJURY® Unflavored Whey Protein	1 scoop	20
Pro-Stat®	2 tablespoons	15
Beneprotein®	1 scoop	6

## Fat Free Shake and Smoothie Recipes

**All ingredients should be fat free (FF).**

For all recipes, place ingredients in a blender and blend until smooth.

Always clean the blender well after use!

### Basic Smoothie

½ cup FF vanilla yogurt or other FF yogurt flavor (such as lemon, key lime, strawberry, etc)  
 1 small ripe banana  
 ¼ cup skim milk

### Banana-Apple

½ small banana  
 ½ cup FF cottage cheese  
 ¼ cup apple juice

### Strawberry Cheesecake Shake (not sweet)

6 to 7 strawberries  
 ½ cup FF milk  
 ½ cup FF cottage cheese  
 Honey to taste

**Sherbet Drink**

½ cup FF milk  
1/2 cup FF sherbet or sorbet  
Almond or vanilla extract to taste  
Blend all ingredients and chill well before serving

**Juice Shake**

¾ cup pineapple juice (or other juices)  
¼ cup FF egg substitute (optional for more protein)  
1-½ cups FF vanilla ice cream

**Strawberry Yogurt Frappe**

1 tablespoon strawberry syrup or other flavoring  
½ cup FF vanilla yogurt  
½ cup FF milk  
¼ cup orange juice  
Dash vanilla extract

**Fruit and Cream**

½ cup FF milk  
½ cup FF vanilla ice cream  
½ cup canned fruit in heavy syrup (peaches, apricots, pears)

**Peach Plus**

1/2 Peach, canned  
¼ cup FF vanilla yogurt  
¼ cup FF Milk  
Dash vanilla  
Dash nutmeg

**Develop your own fat free smoothie:**

- Each of the ingredients must be fat free. If a recipe calls for ice cream, yogurt, or milk, be sure to use fat-free versions only!
- Use frozen fruit or ice cubes for a frosty, refreshing treat.
- Add or subtract liquid ingredients for the consistency you like best.
- Add plain water or crushed ice for thinner smoothies. This will decrease the calorie content per portion.

Begin with the following recipe. Choose the fruits and flavors you like best!

- 1 cup frozen or fresh fruit
- 1 small frozen banana (optional)
- ½ cup FF yogurt or FF ice cream
- ½ cup fruit juice or skim milk
- You may choose to add a tablespoon of honey or sugar
- You may try adding one of the following for a twist: cinnamon, nutmeg, cloves, ginger or vanilla extract