Protein Restrictioned Diet for Pre-ESRD Patients

Andrea Leach, RD *

Nephrology, Inc is a freestanding outpatient dialysis center including hemodialysis, peritoneal dialysis, and Pre-end-stage renal disease (ESRD) clinics staffed by a multidisciplinary team (social worker, transplant coordinator, dietitian, and physician). Patients are seen by the dietitian for various diet modifications, including weight reduction, low potassium, low oxalate, and low protein diets.

Pre-ESRD patients are frequently asked to follow a number of dietary restrictions including a protein-restricted diet. Although it has not been conclusively proven that a protein-restricted diet will delay further kidney damage for all patients, the evidence suggests that reducing dietary protein can decrease uremic symptoms (ie, nausea, vomiting, and fatigue) and may help prolong kidney function.

Protein needs are estimated collaboratively by the dietitian and physician and are individualized based on laboratory results and other pertinent information. An exchange system is used to simplify the diet, so that patients do not need to count grams of protein.

The two types of protein, high quality protein and low quality protein, are explained to the patient. We stress that the majority of protein should come from high quality protein foods, such as meats and dairy products, and that these food groups can be interchanged. Based on the dietary needs, diet history, 24-hour recall, and any goals for necessary weight changes, the number of protein exchanges are calculated per day.

We have included the “Salt Group” on this handout as well because most of these patients are also asked to follow a No Added Salt diet. This is discussed with the patient at the end of the consultation. High sodium foods, such as luncheon meats and processed cheeses, are reviewed, and patients are instructed how to incorporate these foods safely into their diet plan.

Special considerations in medical history need to be taken into account when counseling a patient on low protein with this handout. This teaching tool does not take into consideration other dietary issues the patient may have, ie, diabetes, high cholesterol, or previous diet restrictions. This tool is used during an individual consultation for a low protein diet; other diet restrictions can be added as needed.

Acknowledgment

The author thanks all the Dietitians at Nephrology, Inc, 710 Park Place, Mishawaka, IN 46545.
Low Protein Diet

Why do I need to follow a Low Protein Diet?
When protein is broken down in the body, it produces nitrogen wastes. When your kidneys are not functioning properly, they lose the ability to get rid of these wastes. As the level of nitrogen wastes in the blood goes up, you may experience some of the following symptoms: Nausea, Vomiting, Fatigue, Loss of Appetite, and Hiccups. A low protein diet is designed to lower the amount of wastes in the blood and lessen the work load of the kidney.

Grams per day_____

<table>
<thead>
<tr>
<th>MEAT GROUP</th>
<th>MILK GROUP</th>
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</thead>
<tbody>
<tr>
<td>Servings/day</td>
<td>Servings/day</td>
</tr>
<tr>
<td>One serving is 7 grams of protein</td>
<td>One serving is 8 grams of protein</td>
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</tbody>
</table>

One serving would be:

- Beef, Pork, Lamb, Veal
- Poultry, Fish, Shellfish: 1 oz.
- Egg: 1
- Hard Cheeses*: 1 oz
- Processed Cheeses*: 1 oz
- Luncheon Meats*: 1 oz
- Dried Beans (cooked): ½ cup
- Peanut Butter: 2 tbsp.
- Cottage Cheese*: ¼ cup

One serving would be:

- Milk: 1 cup
- Buttermilk: 1 cup
- Ice milk or ice cream: 1 cup
- Yogurt: 1 cup
- Sherbet: 2 cup
- Pudding: 1 cup
- Cream soup*: 1 cup

*foods high in sodium
BREAD/STARCH GROUP

______ Servings/day
One serving is 2 grams of protein

One serving would be:

BREAD any type 1 slice
Hamburger/Hot dog bun ½
English muffin/bagel ½
Biscuit 1
Croissant 1 small
Muffin 1 small
Pita Bread ½
Tortilla chips* 9
Corn tortilla 2
Flour tortilla 1

Pasta/noodles ½ cup
Rice ½ cup

CRACKERS/SNACKS:
Saltines, butter* 10
Graham 3 squares
Melba toast 3 oblong
Pancake/Waffle 1 small
Pretzels* 10
Popcorn (popped) 1 ½ cup
Cake, angel food 1 slice
Cake, other 2x2” square

COOKIES:
Vanilla wafers 10
Newton type 4

CEREALS:
Puffed rice 2 cups
Puffed wheat 1 cup
Grapenuts 3 tbsp.
Other ready-to-eat ¾ cup

VEGETABLE GROUP

Excluding the “free” vegetables, you may have:

______ Servings/day
One serving is 2 grams of protein.

One serving would be:
Raw vegetables 1 cup
Cooked vegetables
(fresh, frozen, canned*) ½ cup
Tomato or spaghetti sauce* ½ cup

FRUIT GROUP

Fruit contains very little, if any, protein.
All fruits are free. You should have at least:

______ Servings/day

One serving would be:
Canned fruit ½ cup
Fresh fruit ½-1 cup or
Apple sauce ½ cup
Dried fruit ½ cup

*foods high in sodium
FAT GROUP

Fat contains very little, if any protein. All fats are free. You should have at least:

______ Servings/day

One serving would be:

Margarine, butter 1 tsp
Low calorie margarine 1 Tbsp
Mayonnaise 1 tsp
Oil 1 tsp
Salad dressing 1 tsp
Low calorie salad dressing 2 Tbsp
Tartar sauce 2 tsp

SALT GROUP

Each salt serving contains 250mg of sodium. Foods with an * are high in sodium, these count as a salt serving.

______ Servings/day

One serving would be:

Salt 1/8 tsp
Seasoning salt (onion, garlic) 1/8 tsp
Accent 1/4 tsp
Barbecue sauce 2 Tbsp
Catsup 11/2 Tbsp
Dill pickle 1/6 large
Mustard 4 tsp
Olives 2-3
Soy sauce 1/4 tsp
Light soy sauce 1 tsp
Taco sauce 2 Tbsp
Worcestershire sauce 1 Tbsp

FREE FOODS

These foods are high in calories but low in protein.

______ Servings/day (For non-diabetic patients)

Carbonated beverages
Kool-Aid
Lemonade/Limeade
Fruit Flavored drinks (Ocean Spray, Hi-C, Gatorade, Hawaiian Punch, Tang)
Fruit Ice
Popsicles/Juice bars
Sorbet
Buttermints
Hard Candy
Gum drops/Jelly Beans
Fruit Chews/Roll-ups

Jam or Jelly
Syrup
Marshmallows
Sugar-brown, white, powdered
Matzo Crackers
Regular or flavored tea
Regular or flavored coffee
Non-dairy creamer
Whipped cream
Free Vegetables (raw):
Lettuce, Cabbage, Celery, Cucumbers,
Green onion, Radishes