## Low Protein Diet

## Purpose

The low protein diet is for those who must restrict protein content of foods, such as in liver and kidney diseases. Protein is needed for growth and repair of the body. It is important to get enough protein to meet basic needs, while avoiding excess protein. Since the overall amount of protein is reduced in this diet, it is important to choose high biological value proteins such as those from beef, pork, fish, poultry, eggs, cheese, and milk.

When eating a low protein diet, it is essential to have adequate energy (calories) from carbohydrates and fats. If too few calories are eaten, protein will used by the body for energy, rather than for growth and repair. Sodium and fluids may also be restricted if ascites or edema (excess water) are present.

In the following lists, food items are combined into food groups according to the nutrient and protein values found in each food. Pay close attention to serving sizes. Do not exceed the total number of servings allowed daily from each group.

## "Extend" protein in recipes so that a small amount is more satisfying:

- Use thinly sliced meats (it looks like more).
- Add vegetables like lettuce, onion, tomato, and pickles to sandwiches.
- Use milk substitutes (like non-dairy creamer) in place of milk in sauces and soups.
- Think of vegetables and grains as the main dish and meat as the side dish or complement to your meal. Add small amounts of meat to vegetable salads, rice, pasta, potato dishes.
- Use a stronger tasting cheeses such as sharp cheddar for more cheese flavor when using smaller amounts.


## Add more calories (and save protein):

- Increase heart-healthy fats like monounsaturates (olive, canola, peanut oils), and polyunsaturates (corn, cottonseed, safflower, soybean or sunflower oils).
- Use candy and sweeteners (if you are diabetic, talk to your dietitian first).
- Use canned or frozen fruits in heavy syrup.
- Try a sherbet freeze: 12 oz. sherbet and 6 oz. Sprite (466 calories).

Dietitian: $\qquad$
Phone: $\qquad$
Facility: $\qquad$

This handout is meant for use during an appointment with a registered dietitian only and is not intended for use by other clinicians.

## Protein Content of Food Groups

Milk: 4 grams protein; choose $\qquad$ servings per day.

Avoid commercially prepared milk drinks and all milk products not listed.

| Foods | Amount per <br> Serving | Foods | Amount per <br> Serving |
| :--- | :--- | :--- | :--- |
| Whole, 2\%, 1\%, Skim | $1 / 2$ cup | Heavy whipping cream | $3 / 4$ cup |
| Condensed | $1 / 4$ cup | Sour cream | $1 / 2$ cup |
| Evaporated (regular/skim) | $11 / 4$ cup | Non-dairy cream | 1 cup |
| Dry, powdered (whole/skim) | 2 tbsp. | Ice cream (no nuts) | $1 / 2$ cup |
| Light cream | $1 / 2$ cup | Yogurt (all varieties) | $1 / 2$ cup |
| Half and half $(1 / 2 \& 1 / 2)$ | $1 / 2$ cup | Custard | $1 / 4$ cup |
|  |  | Pudding (no nuts) | $1 / 2$ cup |

Fruit: 0.5 grams protein; choose
servings per day.

| Foods | Amount per Serving | Foods | Amount per Serving |
| :---: | :---: | :---: | :---: |
| Applesauce (all types) | $1 / 2$ cup | Lemon, fresh | 1 each |
| Apple | 1 small | Lime, fresh | 1 each |
| Apple juice | $1 / 2$ cup | Mandarin oranges, canned | $1 / 2$ cup |
| Apricots, canned or raw | 4 halves | Mango, medium | 1 |
| Banana, medium | $1 / 2$ | Nectar, all types | $1 / 2$ cup |
| Blackberries | $1 / 2$ cup | Nectarine, medium | 1 each |
| Blueberries | $1 / 2$ cup | Orange | 1 each |
| Boysenberries, raw | $1 / 2$ cup | Orange juice, all types | $1 / 2$ cup |
| Cranberries | 1 cup | Papaya, medium | 1/3 |
| Cranberry juice cocktail | $1 / 2$ cup | Peaches | $1 / 2$ cup |
| Cranberry sauce, jellied | $1 / 2$ cup | Pears | $1 / 2$ cup |
| Cranberry sauce, whole, cnd | 2 oz . | Pineapple, raw | $1 / 2$ cup |
| Casaba | 3/4 cup | Pineapple, canned | 1/3 cup |
| Dates, dried | 5 | Pineapple juice | $1 / 2$ cup |
| Grapefruit | 1/2 cup | Plums, canned or raw | 1 each |
| Grapefruit juice | $1 / 2$ cup | Pomegranate, medium | 1/3 |
| Gooseberries, raw | $1 / 2$ cup | Prunes | 5 each |
| Figs, cnd, heavy syrup | 3 | Prune juice | 1/3 cup |
| Figs, raw or dried | 1 med | Raisins | $1 / 4$ cup |
| Fruit cocktail (all types) | $1 / 2$ cup | Rhubarb, frozen or cooked | $1 / 2$ cup |
| Grapes | 10 | Strawberries | $1 / 2$ cup |
| Grape juice, all types | $1 / 2$ cup | Tangerine | 1 each |
| Honeydew | $1 / 2$ cup | Tangelo, medium | 1 |
| Kiwi, medium | 1 | Watermelon, diced | 1 cup |

Vegetables: $\mathbf{2 . 0}$ grams protein; choose $\qquad$ servings per day.

| Foods | Amount per Serving | Foods | Amount per Serving |
| :---: | :---: | :---: | :---: |
| Artichoke, cooked | 1 med | Lettuce, iceberg | $3 / 4 \mathrm{oz}$. |
| Artichoke hearts, cooked | 1/3 | Mixed vegetables | 1/2 cup |
| Asparagus, cooked | $1 / 2$ cup | Mushrooms | $21 / 2$ small |
| Bamboo shoots, cnd | $1 / 2$ cup | Onions, all varieties (raw) | $1 / 2$ cup |
| Bean sprouts | $1 / 2$ cup | Parsnips, cooked | $1 / 2$ cup |
| Beans, green or wax | $1 / 2$ cup | Peas | $1 / 2$ cup |
| Beets, cooked | $1 / 2$ cup | Peppers, Jalapeno, cnd | $1 / 2$ cup |
| Broccoli | 2/3 cup | Peppers, sweet, raw | $1 / 2$ cup |
| Brussels sprouts | $3 / 4$ cup | Potatoes, cooked | $1 / 2$ cup |
| Cabbage, all varieties | $1 / 2$ cup | Potatoes, French fried, sm | 10 strips |
| Carrots | 2/3 cup | Pumpkin, cooked | $1 / 2$ cup |
| Cauliflower | $1 / 2$ cup | Radish, raw | 3 small |
| Celery, raw | 1/2 stalk | Rutabaga | $1 / 2$ cup |
| Celery, cooked | 1/3 cup | Spinach | $1 / 2$ cup |
| Corn, cooked | $1 / 2$ cup | Squash, winter, cooked | $1 / 2$ cup |
| Corn on the cob, medium | $1 / 2$ cob | Squash, summer, cooked | $1 / 2$ cup |
| Cucumber, sliced | $1 / 2$ cup | Sweet potato | $1 / 2$ cup |
| Eggplant, cooked | $1 / 2$ cup | Tomato, raw | 1 small |
| Greens, mustard, beet, etc. | $1 / 2$ cup | Tomato juice | $1 / 2$ cup |
| Hominy, grits cooked | $1 / 2$ cup | Turnip | $1 / 2$ cup |
| Kohlrabi, raw or cooked | $1 / 2$ cup | Vegetable juice cocktail | $1 / 2$ cup |
| Leek | $1 / 2$ cup | Watercress, chopped | $3 / 4 \mathrm{Oz}$. |
| Lettuce, romaine | 1 oz . | Water chestnuts, canned Yam, cooked | 8 each 1/3 cup |

Bread, Cereal and Desserts: $\mathbf{2 . 0}$ grams protein; Choose $\qquad$ servings/day.

| Foods | Amount per Serving | Foods | Amount per Serving |
| :---: | :---: | :---: | :---: |
| Bread, all types <br> Biscuit or muffin <br> Hamburger / hot dog bun <br> Roll, 1 oz. <br> Cornbread <br> Crackers, saltine <br> Crackers, graham <br> Holland risk, regular <br> Melba toast <br> Rykrisp <br> Pancakes <br> Waffles <br> Tortilla <br> Popcorn, popped <br> Sherbet | 1 oz 1 small 1 small or $1 / 2$ large 1 $2 "$ square 3 square 2 square 1 slice 5 slices 2 slices $1-6^{\prime \prime}$ $1-6^{\prime \prime}$ $1-6 "$ $11 / 2$ cups $3 / 4$ cup | Danish, doughnut, sweet roll <br> Cookies (no nuts) all types <br> Cupcake (no nuts) <br> Brownies (no nuts) <br> Cake, all varieties, no nuts <br> Cooked cereal <br> Pasta, all types, no egg noodles <br> Homemade fruit pie, 9 in. <br> Flour, cornmeal, cornstarch, tapioca <br> Uncooked barley | 1 sm or $1 / 2$ large 2 medium 1 medium $1(2 \times 2 \times 3 / 4)$ 1/10 (9x13) $1 / 2$ cup $1 / 2$ cup 1/10 $21 / 2$ tbsp. <br> $11 / 2 \mathrm{tbsp}$. |

Meat: 7.0 grams protein; choose $\qquad$ servings per day.

| Foods | Amount per <br> Serving | Foods | Amount per <br> Serving |
| :--- | :--- | :--- | :--- |
| Egg | 1 each | Peanut butter | 2 tbsp. |
| Cheese | 1 oz. | Tofu (soybean curd) | $1 / 2$ cup |
| Cottage Cheese | $1 / 4 \mathrm{cup}$ | Soybean products | 1 cup |
| All meat, fish, poultry | 1 oz. | Miso | 3 tbsp. |
| Canned tuna or salmon | $1 / 4$ cup | Beans/legumes | $1 / 2$ cup |
| Shellfish: clams, oysters, shrimp | 5 small or |  |  |
|  | $1 / 4$ cup |  |  |

Fat: The following contain 45 calories per serving and negligible protein

| Foods | Amount per Serving |
| :--- | :--- |
| Butter, margarine, shortening, oils, lard, mayonnaise <br> Salad dressing (mayo-type) | 1 teaspoon <br> 2 teaspoon <br> Salad Dressing: French, Roquefort, blue cheese, 1000 Island (These are <br> regular dressings, not the reduced calorie) |

Misc.: The following contain 60 calories per serving and negligible protein

| Foods | Amount per <br> Serving | Foods | Amount per <br> Serving |
| :--- | :--- | :--- | :--- |
| Butterscotch drops | 3 pieces | Lollipops | Marshmallows |
| Chewing gum | 6 sticks | Mints, medium | 1 small <br> Cotton candy <br> Gum drops, small <br> Gum drops, large |
| Hard candy | 15 pieces | Popsicle | 2 |
| Honey | 2 pieces | Sugar | 1 regular |
| Jelly beans | 2 pieces | Sugar, powdered | 4 tsp |
| Jams / Jellies | 1 tbsp. | Syrup, corn, light | 1 tbsp. |

Beverages: The following contain 50-70 calories per serving and negligible protein

| Foods | Amount per Serving |
| :--- | :--- |
| Beverages, artificially flavored fruit drinks | $3 / 4$ cup |
| Beverages, carbonated drinks | $3 / 4$ cup |
| Ginger ale | 1 cup |
| Lemonade | $1 / 2$ cup |
| Orange drink, Tang | $1 / 3$ cup |

## Combine Legumes and Cereal grains for Protein of High Quality

（Combinations that furnish approximately 20 grams of protein．）

## 2／3 cup cooked dry peas plus one of the following：

－ 1 cup cooked pasta
－ 3 slices bread
－ $11 / 2$ cup cooked rice
－ 1 cup cooked cornmeal

## 1－1／3 cup cooked lentils plus one of the following：

－3／4 cup pasta
－ 2 slices bread
－ 1 cup cooked rice
－3／4 cup cooked cornmeal

Lentil Sprouting：Soak whole lentils in about 3 times their volume of water overnight or until they are saturated． Drain off excess water and keep seeds in a warm place（68 degrees or slightly warmer）．Keep the seeds moist by rinsing with lukewarm water 2－4 time per day．Lentils can grow in light or dark．You will need at least 1 pound of lentil seeds to sprout．Use a container that drains easily，such as a colander，screen－lidded wide－mouth jars or shallow glass dishes with cheesecloth in the bottom．Lentil seeds need to grow $2-4$ days or $3 / 4$ to $1 \frac{1}{2}$ inches long before they are ready to use． 1 cup of lentil seeds makes six cups of sprouts．

Low protein products may be purchased from Dietary Specialties at 716－263－2787，including low protein bread， crackers，cookies，pasta，baking mixes，wheat starch，and gelatin．

