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Menu Guide

Sysco Corporation
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Menu Guide

Overview

The Menu Guide is designed as a resource for facilities and institutions that use the IMPAC Menu Program. It provides nutrition information and guidelines used in the planning and development of the IMPAC Menus. It is updated periodically based on current literature and program enhancements.

Please note the following:

- The Academy of Nutrition and Dietetic's Nutrition Care Manual (nutritioncaremanual.org, 2016) is the primary reference used for this manual. This menu guide is not intended to replace the use of the Academy's manual as a standard resource within the foodservice operation. It is to be used in conjunction with this and other resources.

- Choose Your Foods: Foods Lists for Diabetes (2014) developed by The American Diabetes Association and the Academy is used for all calorie-controlled diet types. Meal patterns are established to ensure the appropriate distribution of nutrients throughout the day. Modifications to diabetic diets may be made with a Registered Dietitian's approval at the facility level.

- Diet descriptions and abbreviations found on the IMPAC Reports begin on page 3.

- A total of twenty-four diet types are planned for the National IMPAC Program. Each Menu Set has a maximum of fifteen "House" Diet Types available. Some facilities may have less than the maximum f i f t e e n . To help control dietary production costs, as well as promote menu compliance, it is recommended that only the "House" diets be used in physician's orders. Providing this information to facility nursing staff, as well as physicians, increases awareness of appropriate diet orders.

- IMPAC uses a standard naming pattern for all entree recipes throughout the menu program, excluding sandwiches. Within the name of a recipe the ounces of edible protein are identified. For example "BAKED FISH 3OZ SCR" indicates that this baked fish recipe contains three ounces of edible protein per portion. On the diet spreadsheets, the amount to serve may be slightly higher. For example, BAKED FISH 3OZ SCR requires four ounces of fish to meet the requirement of three ounces edible protein. As a reminder, one ounce of edible protein is approximately seven grams of protein. IMPAC counts edible protein as protein derived from HBV (High Biological Value) protein sources such as meat, poultry, fish, dairy, and eggs, as well as protein from vegetable sources such as beans, legumes, soy and tofu.

- The IMPAC Program follows a liberalized philosophy. This menu planning philosophy is supported in the literature and by the Academy's 2010 position statement, "It is the position of the American Dietetic Association that the quality of life and nutritional status of older adults residing in health care communities can be enhanced by individualization to less restrictive diets. The American Dietetics Association advocates for registered dietitians to assess and evaluate the need for nutrition interventions tailored to each person's medical condition, needs, desires, and rights." This Academy's 2010 position statement is available on the Academy of Nutrition and Dietetics website http://www.eatright.org.

- The IMPAC Program adopted a liberal philosophy for two important reasons: **(1)** To promote the guidelines established by the Academy and the American Diabetic Association. These associations have determined that moderation is the key to successful dietary regimens. **(2)** To reduce foodservice production by giving the regular version of a recipe to all diet types as long as diet integrity is maintained. Computerized nutrient analysis is used to determine if Regular recipes are appropriate for therapeutic/modified diets. When applicable, diet liberalization reduces the amount of therapeutic recipes that are menued.

- **State regulations vary.** Your Consultant Dietitian can ensure that your facility menus comply with your state regulations and survey practices. It is the facility's responsibility to have the menu reviewed by appropriate personnel to ensure that the menu is applicable for the facility's population.

- Choose Your Foods: Food Lists for Diabetes may be purchased from the Academy of Nutrition and Dietetics at their website, www.eatright.org or from the Academy's Publication toll free number, 800-366-1655. The Academy of Nutrition and Dietetics Nutrition Care Manual is available for purchase online at nutritioncaremanual.org.

IMPAC DIET DESCRIPTIONS	
Regular (REG)	Requires no dietary modification or restriction.
Dysphagia Level 3: Advanced (L3/ADVANCED)	Consists of soft foods that are easy to chew and swallow. Bread must be served with margarine. Meats are ground or chopped, based on resident tolerance. It is based on the Nutrition Care Manual's Level 3: Advanced diet.
Dysphagia Level 2: Mechanically Altered (L2/MECH ALT)	This diet is a guide for patients requiring modified food textures to enhance chewing and swallowing abilities. It is based on the Nutrition Care Manual's Level 2: Mechanically Altered diet. Individual resident tolerance **must** be considered and menu adjusted, if needed, at the facility level.
Dysphagia Level 1: Puree (L1/Puree)	Follows the regular diet when possible and menu items are pureed. Specific recipes are available and typically incorporate food thickeners. The Puree diet reference is the Nutrition Care Manual's Level 1: Pureed diet.
Low Fat/ Low Cholesterol (LFLC)	The regular menu is followed with substitutions for foods high in fat and/or cholesterol. Egg substitute and skim milk are served. The goal for total fat content per day is 60 gm fat or less than 30% total calories. Cholesterol intake is limited to less than 200 mg per day.
No Added Salt (NAS) (4000 mg – 6000 mg sodium per day)	The regular menu is served. Table salt is not served. A salt substitute should be served by physician's order only.
2 Gram Sodium (NA–2)	The goal for sodium intake is 2000 mg ± 200 mg per day. A salt substitute should be served with physician's order only.
Renal (RENAL)	Provides approximately 80+ gm protein, 2 gm of sodium and 2 gm of potassium. Fluid is restricted to 32 oz (4 cups or 960 cc) beverages per day, and soup is not included for this diet.
Reduced Concentrated Sweets (RCS)	This diet follows the regular diet. However, regular desserts are served only when carbohydrate content does not exceed 30 g per serving. Beverages are sugar free. An artificial sweetener replaces the sugar packet.
Controlled Carbohydrate Diet (CCHO)	Provides approximately 60 ± 15 g of carbohydrates at breakfast, lunch and dinner and 15-30 g at the HS Snack. Beverages are sugar free. An artificial sweetener replaces the sugar packet.
Calorie Controlled (1200) (1500) (1800) (2000)	Daily meal patterns for 1200, 1500, 1800, 2000 calories based on the Choose Your Foods: Food Lists for Diabetes.
1800 cal/2 gm Sodium (18-2)	Follows the same meal pattern as the standard calorie controlled diets. High sodium foods are excluded and total sodium does not exceed 2000 mg ± 200 mg per day.

IMPAC DIET DESCRIPTIONS	
High Fiber (HI-FIB)	This diet is the Regular Diet with an emphasis on fiber-rich food sources including fruits, whole wheat bread, and whole grain cereals.
High Calorie/High Protein (HI-PRO)	This diet incorporates additional protein into the regular diet by adding one or all of the following: 1) an additional ounce of edible protein per meal, 2) 24 oz milk/day and 3) an HS snack of a high-protein milkshake.
Finger Food (FGRFD)	This diet follows the Regular Diet. Foods that may be eaten with minimal utensil involvement are included.
Vegetarian (VEG)	Follows the Regular Diet when possible. It is a plant-based diet that allows milk, milk products, cheese and eggs while avoiding all meat, fish and fowl, beef/chicken broth, ham/bacon flavoring, and gelatin.
Cardiac (CARDIAC)	The goal for total fat content per day is 60 gm or less than 30% total calories. Cholesterol intake is limited to less than 200 mg per day. The total sodium intake does not exceed 2000 mg ± 200 mg per day. Provides at least 20 grams of fiber per day.
Soft (SOFT)	This diet is designed for individuals who have difficulty chewing. It includes foods which are soft in texture including moistened ground meats, canned or cooked tender vegetables and fruits, and soft breads and cereals.
Small Portion (SMALL PT)	This diet is planned to include smaller portions of entrées, starches and breads for most meals
Large Portion (LARGE PT)	This diet is planned to include larger portions of entrées, starches and breads for most meals.
Gluten-Free (GLUTEN FREE)	This diet is designed for individuals with Celiac's disease or other gluten sensitivities. Recipes planned on this diet only include items that are either inherently gluten-free, consist of non-gluten containing ingredients, or are specifically marketed as gluten-free.

For all other diet types, refer to the Academy of Nutrition and Dietetics Nutrition Care Manual and your Consultant Dietitian.

Menu Planning

The IMPAC menus for Long Term Care are based on the most recent recommendations made by the Food and Nutrition Board, Institute of Medicine, National Academies*. The Food and Nutrition Board has revised the 1989 Recommended Dietary Allowances (RDAs). The Dietary Reference Intakes (DRI) incorporates the RDA, as well as the Estimated Average Requirement (EAR), the Adequate Intake (AI), and the Tolerable Upper Intake Level (UL). The reference nutrient standard for IMPAC Menus is *Female, 51 – 70 Years*. However, when available, the amount recommended for *Female, 71 Years Plus* is also listed as a reference. See page 7.

The RDA, as well as the AI, are the recognized safe and adequate allowances for the maintenance of good health for 97 – 98% of the population. They are for healthy persons only. Stress, malnutrition or disease may increase nutrient needs and require appropriate evaluation by medical or nutritional personnel.

It is important to remember that the RDA and/or AI are goals for average daily intake. However, the amount consumed may vary significantly from day to day without negative consequences.

In addition, nutritional information may not be reflective of the true nutrient content of the food item based on limited information received from product manufacturers.

*Trumbo, P, Schlicker, S, Yates, A, Poos, M. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids. *J Am Diet Assoc*. 2002;102:1621-1630.

Dietary Reference Intakes
Recommended Intakes for Individuals
Food and Nutrition Board, Institute of Medicine, National Academies

Nutrient	IMPAC Abbreviation	51-70 Female Current DRI	71+ Female Current DRI
Calories*	*(KCAL)*		
Protein** *g*	*(PRO)*	46	46
Carbohydrate ∇*g*	*(CHO)*	130 minimum	130 minimum
Vitamin A *µg*	*(VTAIU)*	700	700
Vitamin D *µg*	*n/a*	15	20
Vitamin E *mg*	*n/a*	15	15
Vitamin K *µg*	*n/a*	90	90
Vitamin C *mg*	*(VITC)*	75	75
Thiamin *mg*	*(B1)*	1.1	1.1
Riboflavin *mg*	*(B2)*	1.1	1.1
Niacin *mg NE*	*(NIA)*	14	14
Vitamin B6 *mg*	*(B6)*	1.5	1.5
Folate *µg*	*(FOLT)*	400	400
Vitamin B12 *µg*	*n/a*	2.4	2.4
Calcium *mg*	*(CA)*	1200	1200
Phosphorus *mg*	*(P)*	700	700
Magnesium *mg*	*n/a*	320	320
Iron *mg*	*(FE)*	8	8
Zinc *mg*	*(ZN)*	8	8
Iodine *µg*	*n/a*	150	150
Selenium *µg*	*n/a*	55	55
Fiber *g*	*(TDFB)*	21	21
Sodium *g*	*(NA)*	1.3	1.2
Potassium *g*	*(K)*	4.7	4.7
Fat g	*(FAT)*	*DRI n/a*	
Cholesterol mg	*(CHOL)*	*DRI n/a*	

* Calories requirements are individually determined based on height, weight, gender and activity level. In the Nutritional Analysis Report, the total calories of 1900 are listed as the daily goal. This is an arbitrary number to be used as a reference only. The resident may need fewer or more calories based on individual nutritional assessment.

** Protein requirements are shown to have a DRI of 46 g. Protein needs may also be determined by multiplying weight in kg by 0.8.

∇ **This amount of carbohydrates is the minimum recommended. There is no stated maximum with the exception that added sugars should not comprise more than 25% of the daily calories.**

The recommended distribution of daily calories for macronutrients are as follows:

Carbohydrate	**45 – 65%**
Protein	**10 – 35%**
Fat	**20 – 35%**

Nutrition information for nutrients will be provided when available from USDA or the manufacturer. The following nutrients are considered mandatory for nutrition labeling by the FDA:

Calories, Fat, Saturated Fat, Trans Fat, Cholesterol, Total Carbohydrate, Fiber, Sugar, Protein, Vitamin A, Vitamin C, Calcium, Iron

All other nutrients may show incomplete data in nutrition analysis reports. The incomplete data is indicated by italics (IMPAC) or bolding and underlining (NetIMPAC).

Please refer to page 97 for a complete listing of DRIs. Please note, information for some nutrients may not be provided by the manufacturer or available through USDA. Therefore, some nutrients may show a lower amount per menu based on the data provided.

Regular Diet

The Regular Diet is designed to meet or exceed the cited recommendations by the Food and Nutrition Board. The Regular Diet consists of a variety of food choices that will provide nutrients in adequate amounts for the majority of the population.

Individualizing the diet is particularly important for older adults in the long term care setting. A Dietitian or Dietetic Technician should evaluate each resident using a nutritional assessment to develop specific diet orders. An assessment may include, but is not limited to the following: current nutritional status; appropriate modifications in texture; resident food and beverage preferences; estimated needs for calories, protein and fluids; degree of independence for meal consumption; assessment of vitamin/mineral needs.

Ethnic, religious, and socioeconomic factors influence food habits, and affect the quality of life of older adults. These factors should be considered when planning meals and/or dietary modifications.

Alternate menu selections may need to be planned to help the foodservice staff accommodate individual food preferences.

Nutrient Guidelines

- **Energy** needs decrease with age. This is related to diminished lean body mass and physical activity. The Harris Benedict Equation may be used to estimate basal energy needs. Individualized assessment will incorporate an activity factor, an injury factor when applicable, as well as weight goals.

- **Protein** needs are estimated at 0.8 g/kg body weight or 10-35% of total calories. Protein needs may increase related to pressure ulcers, infection, trauma, or surgery. Risk factors associated with limited protein intake include chewing and swallowing difficulties, cognitive problems as well as self-restriction of various food items.

- **Carbohydrates** are one of the three main sources for energy. The dietary guideline for carbohydrates is 45-65% of total calories. Carbohydrates are found in fruits, vegetables, grains and milk. Choosing a variety of these foods can reduce the risk of chronic disease.

Nutrient Guidelines, continued

- **Fat** provides essential fatty acids and a concentrated source of calories. Reducing dietary fat in the older adult in response to heart disease or other illness warrants consideration and review of the risk vs. benefit in dietary restriction. Restricting the diet may negatively impact food consumption depending on individual tolerance. Severe dietary restriction may exacerbate the high risk of weight loss in the older adult population. Fat should provide 20 – 35% of total calories.

- **Calcium**
  The recommended calcium intake is 1200 mg/day for women over the age of 50 years. An adequate calcium intake cannot prevent osteoporosis. However, it does play a role in the protection against bone loss. Supplementation may be warranted.

- **Vitamin D** recommendations have increased with the most recent DRIs for men and women 51 years plus. This is related to a decreased ability for the body to produce this vitamin during aging. In addition, many older adults are housebound and thus may have limited sun exposure that is necessary for Vitamin D synthesis. Vitamin D affects calcium metabolism and consequently bone resorption. Supplementation may be recommended by the physician.

- **B Vitamins (6, 12 and folate)**
  Adequate intakes of B6 and folate may reduce the risk of heart disease and stroke. Depleted B6 levels may have a negative effect on immunity in the elderly. B12 is not absorbed as well as the body ages and between 10 to 30% of older adults can no longer absorb Vitamin B12 found in food.

- **Other Vitamins and Minerals**
  The goal is to meet vitamin and mineral needs with food. However, at times, this is not a feasible goal and supplements may be warranted.

- **Fluids**
  Adults require at least 30cc fluid per kg body weight with a minimum of 1500cc per day. Fluid needs may increase in relation to fever, vomiting, diarrhea, or side effects of medications. To promote adequate fluid intake in the elderly, favorite fluids as well as assistance to drink the fluids may be needed. Certain diagnoses such as Congestive Heart Failure, Renal Disease, or edema may affect fluid needs.

High Calorie/High Protein Diet

The High Calorie/High Protein Diet is based on the Regular Diet with additional protein sources. Estimated protein requirement for older adults is 0.8/kg body weight. However, protein needs may increase in relation to infection, pressure ulcers, surgery or trauma.

The IMPAC High Protein Diet typically incorporates an additional ounce of edible protein to each meal and 8 ounces of milk three times per day. A high-protein milkshake at HS may also be included in the nutritional analysis. Average daily protein cited above includes the protein provided by a daily high-protein shake.

High Fiber Diet

A High-Fiber Diet is used in the prevention or treatment of a number of gastrointestinal, cardiovascular, and metabolic disease including diverticular disease (except in acute phases or those associated with intestinal bleeding, perforation, or abscess), cancer of the colon, constipation, irritable bowel disease, hypercholesterolemia, diabetes mellitus, and obesity.

The High-Fiber Diet is a regular diet with an emphasis on fiber-rich food sources including fruits, vegetables, legumes, whole-grain breads, and cereals. The Academy of Nutrition and Dietetics Nutrition Care Manual states a high fiber diet includes 25-35g dietary fiber per day. Fiber contents of foods are listed on pages 14-16.

Dietary Fiber Content of Foods

High Fiber (more than 4 grams or more)		
Food	**Serving**	**g**
Artichoke	1 medium	10.3
Beans, baked, plain	½ cup	5.2
Beans, black	½ cup	7.5
Beans, kidney, canned	½ cup	6.9
Beans, lima	½ cup	6.6
Beans, navy	½ cup	9.5
Beans, pinto	½ cup	7.7
Beans, white, canned	½ cup	6.3
Blackberries	½ cup	3.8
Bulgur	½ cup	4.1
Cereal, high fiber, bran	½ cup	4-9
Chickpeas, canned	½ cup	5.3
Lentils	½ cup	7.8
Mixed vegetables, frozen	½ cup	4
Pear	1 each	5.1
Peas, green, frozen	½ cup	4.4
Peas, split	½ cup	8.2
Potato, baked, w/skin	1 medium	4.4
Potato, sweet baked w/ skin	1 medium	4.8
Quinoa	½ cup	5
Raspberries	½ cup	4
Soybeans	½ cup	5.1

Dietary Fiber Content of Foods (continued)

Moderate Fiber (1-3 grams)		
Food	**Serving**	**g**
Apple w/ skin	1 medium	3.3
Applesauce	½ cup	1.5
Apricots	2 each	1.4
Apricots, canned	½ cup	2
Apricots, dried	10 halves	2.6
Avocado, raw	1 oz.	1.9
Bagel, 4"	1 each	2
Banana	1 medium	3.1
Barley	½ cup	3
Beans, green or yellow	½ cup	2
Beets, canned	½ cup	1.5
Blueberries	½ cup	1.8
Bread, whole or cracked wheat, pumpernickel, rye	1 slice	2
Broccoli	½ cup	2.5
Brussels sprouts	½ cup	2
Cabbage	½ cup	1.4
Carrots, frozen	½ cup	2.4
Carrots, raw	½ cup	1.6
Cauliflower	½ cup	2.5
Cereal, bran w/ raisins	½ cup	3.4
Cereal, wheat or oat	½ cup	2-4
Cherries, canned or fresh	10 each	1.4
Coconut, shredded	1 oz.	2.5
Corn, canned or frozen	½ cup	2.1
Cornbread	2x2' piece	1.4
Crackers, whole wheat	4 each	1.7
Cranberries	½ cup	2.6
Dates, dried	5 each	3.3
Eggplant	½ cup	1.3
English Muffin	1 each	2
Figs, medium	1 each	1.9
Fruit cocktail, canned	½ cup	1.2
Grapefruit	1.2 each	1.4
Greens, such as turnip, beet, collards	½ cup	1.6-3.2
Kale, cooked	½ cup	1.3
Kiwi	1 medium	2.3
Melon	1 cup	1.4
Muffin, oat bran	2 oz	2.7
Nuts, almonds	1 oz.	3.5
Nuts: pistachios, pecans, walnuts	1 oz.	2-3
Oat bran	½ cup	2.3
Oatmeal	½ cup	2
Okra	½ cup	2
Orange, 2 ½"	1 each	3.1
Papaya	½ each	2.8
Peaches, fresh or canned	1 each or ½ cup	1.5
Peanuts	1 oz.	2.7
Pears, canned	½ cup	2.1
Peas, green, canned	½ cup	3.5
Pineapple, fresh	½ cup	1.1

Dietary Fiber Content of Foods (continued)

Moderate Fiber (1-3 grams)		
Food	**Serving**	**g**
Plum, 2”	1 each	1
Popcorn, air-popped	1 cup	1.2
Prune juice	½ cup	1.3
Prunes	5 each	3.5
Pumpkin, canned	½ cup	3.6
Raisins, seedless	¼ cup	1.4
Rice, brown or wild	½ cup	1.8
Sauerkraut, canned	½ cup	3.4
Seeds, sunflower or pumpkin kernels	¼ cup	1.1
Spaghetti, whole wheat	½ cup	3.2
Spinach, canned	½ cup	2.6
Spinach, frozen	½ cup	3.5
Squash, all varieties	½ cup	2.9
Strawberries	½ cup	1.7
Tangerine	1 each	1.5
Tomato sauce, spaghetti or marinara	½ cup	3.3
Tomatoes, raw	1 medium	1.5
Tortilla, corn, 6”	1 each	1.6
Veggie or soy patty	1 each	3.4
Wheat germ	2 tbsp.	1.7

Dysphagia Level 3: Advanced

The Level 3: Advanced is based on the Nutrition Care Manual's (NCM) Dysphagia Level 3: Advanced diet. The diet is the least restrictive of the Dysphagia diets and consists of foods of varying textures with the exception of very hard, sticky, or crunchy foods. Foods need to be served moist and ground, chopped, or in bite-sized pieces. Please refer to the table on the following pages for a complete list of food groups permitted on this diet.

Considerations for specific food items:

- **Bread -** plain bread or rolls must be served with margarine which is noted on the diet spreadsheet. Sandwiches must be served with a condiment spread on the bread.
- **Cookies –** need to be soft and moist. The recipe provided includes a sugar cookie softened with milk. A soft moist convenience cookie is also appropriate.
- **Corn** – restricted from all three levels of the National Dysphagia Diet. For IMPAC menus, a commercially prepared pureed corn is menued.
- **Fried Potatoes and Potatoes with Peels** - the potato peel is restricted and mashed potatoes are served as the substitute.
- **Meats, Fish, Poultry** – served ground, moist and with gravy. Casseroles are ground and do not require gravy as they typically have liquids incorporated into the recipe and are moist. Fried meats, fish and poultry are restricted.
- **Pineapple** - restricted from all three levels of the National Dysphagia Diet.
- **Nuts, Raisins and other dried fruits –** restricted from the diet.
- **Raw Fruits and Vegetables** – restricted with the exception of banana and shredded lettuce.
- **Toast –** restricted from the diet.
- **Liquids** - Liquid consistencies should be individualized for the patient.

Meals need to be modified to suit individual resident tolerance as determined by appropriate personnel at the facility level. The resident's acceptance and tolerance of the diet determines the extent of texture modification. Individual preferences need to be considered when planning the patient meal.

The Level 3: Advanced Diet receives many of the same items as the Regular diet. Therefore, often the recipes for this diet do not print. Additional instructions for the Level 3: Advanced diet may be found in the Regular recipe instructions.

DYSPHAGIA LEVEL 3: ADVANCED

Food Groups	Recommended Food	Avoid
Beverages	Any beverages, depending on recommendations for liquid consistency.	
Breads	Any well-moistened breads, biscuits, muffins, pancakes, waffles, etc. Need to add adequate syrup, jelly, margarine, butter, etc., to moisten well.	Dry bread, toast, crackers, etc. Tough, crusty breads such as French bread or baguettes.
Cereals *Cereals may have ¼ cup milk or just enough milk to moisten if thin liquids are restricted.*	All well-moistened cereals.	Coarse or dry cereals such as shredded wheat or All Bran®
Desserts	All others except those on the **Avoid** list.	Dry cakes, cookies that are chewy or very dry. Anything with nuts, seeds, dry fruits, coconut, or pineapple. These foods are considered thin liquids and should be avoided if thin liquids are restricted: Frozen malts, milk shakes, frozen yogurt, eggnog, nutritional supplements, ice cream, sherbet, regular or sugar-free gelatin or any foods that become thin liquid at either room (70F) or body temperature (98F).
Fats	All other fats except those on the **Avoid** list.	All fats with coarse, difficult-to-chew, or chunky additives such as cream-cheese spread with nuts or pineapple.

DYSPHAGIA LEVEL 3: ADVANCED

Food Groups	Recommended Food	Avoid
Fruits	All canned and cooked fruits. Soft, peeled fresh fruits such as peaches, nectarines, kiwi, mangos, cantaloupe, honeydew, watermelon (without seeds). Soft berries with small seeds such as strawberries.	Difficult to chew fresh fruits such as apples or pears. Stringy, high-pulp fruits such as papaya, pineapple, or mango. Fresh fruits with difficult-to-chew peels such as grapes. Uncooked dried fruits such as prunes and apricots. Fruit leather, fruit roll-ups, fruit snacks, dried fruits.
Meats, Meat Substitutes, Entrees	Thin-sliced, tender, or ground meats and poultry. Well-moistened fish. Eggs prepared any way. Yogurt without nuts or coconut. Casseroles with small chunks of meat, ground meats or tender meats.	Tough, dry meats and poultry. Dry fish or fish with bones. Yogurt with nuts or coconut. Chunky peanut butter.
Potatoes and Starches	All, including rice, wild rice, moist bread dressing, and tender, fried potatoes.	Tough, crisp fried potatoes. Potato skins. Dry bread dressing.
Soups	All Soups except those on the **Avoid** list. Strained corn or clam chowder. (May need to be thickened to appropriate consistency if soup is thinner than prescribed liquid consistency).	Soups with tough meats. Clam or corn chowder. Soups that have large chunks of meat or vegetables > 1 inch.

DYSPHAGIA LEVEL 3: ADVANCED

Food Groups	Recommended Food	Avoid
Vegetables	All cooked, tender vegetables. Shredded lettuce.	All raw vegetables except shredded lettuce. Cooked corn. Nontender or rubbery cooked vegetables.
Miscellaneous	All seasonings and sweeteners. All sauces. Nonchewy candies without nuts, seeds, or coconut. Jam, jellies, honey, preserves.	Nuts, seeds, coconut. Chewy caramel or taffy-type candies. Candies with nuts, seeds, or coconut.

Dysphagia Level 2: Mechanically Altered

Level 2: Mechanically Altered is a transition from the pureed diet and requires the ability to chew and tolerate mixed textures. Foods are soft and moist. At times, pureed versions of the menu items must be served to ensure integrity of the diet.

Considerations for specific food items:

- **Bread –** slurried.
- **Cereal –** served moistened with milk as stated in the guidelines on the following page.
- **Cookies –** need to be soft and moist. The recipe provided includes a sugar cookie softened with milk. A soft moist convenience cookie is also appropriate.
- **Corn and Peas**– restricted. The pureed corn and peas that are planned for this diet are commercially- prepared. These products are smooth and do not present a choking hazard to the resident.
- **Fried Potatoes and Potatoes with Peels** - the potato peel is restricted and mashed potatoes are served as the substitute.
- **Meats, Fish, Poultry** – served ground, moist and with gravy. Casseroles are typically ground and do not require gravy as they typically have liquids incorporated into the recipe and are moist. Casseroles with restricted food items, such as rice, are pureed. Fried meats are restricted.
- **Pineapple** - restricted from all three levels of the NCM Dysphagia Diet.
- **Nuts, Raisins and other dried fruits –** restricted from diet.
- **Raw Fruits and Vegetables** – raw fruits and vegetables are restricted with the exception of banana. Soft, well-cooked vegetables are allowed, with the exception of corn, peas, and specific fibrous varieties. Vegetables should mash easily with a fork.
- **Liquids** - Liquid consistencies should be individualized for the patient.

The NCM's Dysphagia Level 2: Mechanically Altered serves as a guideline for the IMPAC Level 2: Mechanically Altered diet. **Meals need to be modified to suit individual resident tolerance as determined by appropriate personnel at the facility level.** The resident's acceptance and tolerance of the diet determines the extent of texture modification. Individual preferences should be considered when planning the patient meal.

DYSPHAGIA LEVEL 2: MECHANICALLY ALTERED

Food Groups	Recommended Food	Avoid
Grains and Cereals	Soft pancakes, breads, sweet rolls, Danish pastries, French toasts well moistened with syrup or sauce to form a slurry. Well cooked pasta, noodles and bread dressing. Well cooked noodles in sauce. Spaetzel or soft dumplings that have been moistened with butter or gravy. Purchased pureed bread products. Cooked cereals with little texture, including oatmeal. Slightly moistened dry cereals with little texture such as corn flakes, wheat flakes, and puffed rice. Unprocessed wheat bran stirred into cereals to provide fiber.	All breads not in the recommended list. Very coarse cooked cereals that contain flax or other seeds, dried fruit, and/or coconut.
Desserts	Soft moist cakes with icing dissolved in milk or juice to form a slurry. Cookies softened with milk, coffee, or other liquid. Soft fruit pies with bottom crust only. Crisps and cobblers without seeds or nuts and with soft crust or crumb topping.	Dry, coarse cakes and cookies. Rice or bread pudding.
Vegetables	Moist, well-cooked, soft-boiled, baked, or mashed potatoes. All soft, well-cooked vegetables in pieces less than ½ in in size.	Potato skins. Potato and other vegetable chips. Fried or French-fried potatoes. Cooked corn and peas (serve puree texture). Broccoli, cabbage, brussels sprouts, asparagus, celery, and other fibrous, tough or stringy or undercooked vegetables.

DYSHAGIA LEVEL 2: MECHANICALLY ALTERED
(continued)

Food Groups	Recommended Food	Avoid
Fruits	Soft drained canned or cooked fruits without seeds or skin. Fresh ripe banana. Plain Gelatin or gelatin with canned fruit, except pineapple. Fruit ices. Fruit juices with small amount of pulp. If thin liquids are restricted, fruit juices should be thickened to appropriate viscosity.	Pineapple, fruit with seeds, coconut, dried fruits.
Milk and Milk Products	Puddings, custard, ice cream, sherbet, malts, frozen yogurt, and cottage cheese.	Breakfast yogurt with nuts.
Meats, Meat Substitutes, Entrees *Meat pieces should not exceed ¼ inch cube and should be tender.*	Moistened ground or cooked meat, poultry, or fish with gravy or sauce. Casseroles without rice. Moist macaroni and cheese, well-cooked pasta with meat sauce, tuna-noodle casserole, soft and moist lasagna. Moist meatballs, meat loaf, fish loaf. Tuna, egg, or meat salad without large chunks or hard to chew vegetables. Smooth quiche without large chunks. Poached, scrambled, or soft-cooked eggs mashed with butter, margarine, sauce, or gravy. Soufflés with small chunks of meat, fruit or vegetables. Tofu. Well-cooked, moistened, and mashed dried and cooked beans, peas, baked beans, and other legumes.	Nuts, foods made with nuts, dry meats, tough meats (such as bacon, sausage, hot dogs, bratwurst). Dry casseroles with rice or large chunks. Casseroles with rice are planned at a puree texture. Cheese slices and cubes. Peanut butter. Hard-cooked or crisp fried eggs. Sandwiches. Pizza.

DYSPHAGIA LEVEL 2: MECHANICALLY ALTERED
(continued)

Food Groups	Recommended Food	Avoid
Fats and Oils	Butter, margarine, gravy, cream sauces, mayonnaise, salad dressings, cream cheese, cream cheese spreads with soft fruits or vegetables added, sour cream, sour cream dips with soft fruits or vegetables, whipped toppings.	All fats with coarse or chunky additives.

Dysphagia Level 1: Puree

The Level 1: Puree diet follows the regular diet menu items whenever possible with the modification of pureeing the food item. Foods are modified to a consistency that is "pudding-like."

Depending on individual choice and consumption, this diet can be nutritionally adequate. If conventional foods and beverages do not meet nutritional needs, a nutritional supplement may be appropriate.

Considerations for specific food items:

- **Bread –** pureed.
- **Cereal –** hot cereal served.
- **Corn** –restricted. The pureed corn and peas that are planned for this diet are commercially- prepared. These products are smooth and do not present a choking hazard to the resident.
- **Fried Potatoes and Potatoes with Peels** - the potato peel is restricted and mashed potatoes with a sauce or a gravy is served as the substitute.
- **Juice –** pulp-free. The IMPAC Menu specifies bases.
- **Meats, Fish, Poultry** – served pureed with gravy. Casseroles are pureed and do not require gravy as they typically have liquids incorporated into the recipe and are moist. Fried meats are restricted. Casseroles with rice are pureed.
- **Pineapple** - restricted from all three levels of the NCM Dysphagia Diet.
- **Nuts, Raisins and other dried fruits –** restricted from diet.
- **Raw Fruits and Vegetables** – raw fruits and vegetables are restricted with the exception of banana. Canned fruits and vegetables must be pureed.
- **Liquids** - Liquid consistencies should be individualized for the patient.

The NCM's Dysphagia Level 1: Pureed diet serves as a guideline for the IMPAC Puree diet. **Meals need to be modified to suit individual resident tolerance as determined by appropriate personnel at the facility level.** The resident's acceptance and tolerance of the diet determines the extent of texture modification. Individual preferences should be considered when planning the patient meal.

DYSPHAGIA LEVEL 1: PUREE

Food Groups	Recommended Food	Avoid
Grains and Cereals	Smooth cooked cereals such as farina and cream of wheat with small amounts of milk. Breads, rolls, crackers, pancakes, sweet rolls, Danish pastries, French toasts, muffins, well-cooked pasta, noodles, bread dressing, and rice that have been pureed to a pudding consistency.	Breads, rolls, crackers, biscuits, pancakes, waffles, French toast, muffins, bread dressing, pasta, noodles, and rice that have not been pureed to pudding consistency. Dry cereals, oatmeal, or cooked cereals with lumps, seeds, or chunks.
Vegetables	Pureed vegetables, tomato sauce or tomato paste without seeds and seasoned as desired with butter, margarine, or oil. Mashed or pureed potatoes without skins, seasoned with gravy, butter, margarine, or sour cream.	Fresh, frozen, canned, or dried vegetables that have not been pureed. Tomatoes or tomato sauce with seeds.
Fruits	Pureed fruits, well-mashed fresh bananas or avocados.	Whole fresh, frozen, canned, or dried fruits that have not been pureed. Watermelon with seeds.
Desserts	Smooth puddings, custards, yogurt and pureed desserts and souffles.	Desserts with nuts, dried fruit.

DYSPHAGIA LEVEL 1: PUREE

Food Groups	Recommended Food	Avoid
Milk and Milk Products	Milk used to moistened foods, smooth puddings, custards, or yogurt.	Yogurt with pieces of fruit or nuts.
Meats and Other Protein Foods	Pureed cooked meats, casseroles, Braunschweigner sausage, soufflés, and other egg dishes.	Whole or ground meats, fish or poultry. Dried or cooked lentils or legumes that have been cooked, but not mashed or pureed. Cheese, cottage cheese, or peanut butter unless incorporated into foods and pureed. Fried, scrambled, or hard-cooked eggs unless pureed.
Fats and Oils	Butter, margarine, strained gravy, sour cream, mayonnaise, cream cheese, whipped topping, smooth sauces such as white sauce, cheese sauce or hollandaise sauce.	All fats with coarse or chunky additives.

Thickened Liquids

Thickened Liquids are often prescribed for patients with dysphagia to help meet hydration needs while reducing the risk of choking and aspiration. All liquids provided to the resident must be the consistency ordered by the physician.

Liquid consistencies should be individualized to the patient. The National Dysphagia Diet Task Force has suggested the following viscosity borders and ranges:

Standards for Thickened Liquids

Thin – includes all unthickened beverages and supplements such as clear juices, frozen yogurt, ice cream, clear liquids, milk, water, tea, coffee, soda, broth, plain gelatin, fruit with thin liquid properties such as: watermelon, grapefruit, and orange sections, and any food that will liquefy in the mouth within a few seconds

Nectar-like - includes nectars, vegetable juices, chocolate milk, buttermilk, thin milkshakes, cream soups, and other properly thickened beverages

Honey-like – thickened to honey consistency

Spoon Thick – thickened to pudding consistency, these products will have to be eaten with a spoon such as pudding, custard, and hot cereal

*There are no national standards for thickened liquids. The decision to use thickeners prepared in-house versus commercially prepared thickeners should be determined at the facility level. Due to the wide variation in viscosity for both preparation methods, foodservice staff should adhere to the guidelines set forth by their facility and/or follow the manufacturer's instructions for commercially prepared products.

Low Fat/Low Cholesterol Diet

The Low Fat/Low Cholesterol Diet is designed to help reduce blood levels of cholesterol and triglycerides and is adapted from recommendations by the National Cholesterol Education Program. It is used in the prevention and treatment of coronary heart disease.

No more than 60g or less than 30% of the total calories is derived from fat. Less than 10% of total calories is from saturated fat. Carbohydrates provide 50%-60% of total calories, and protein provides 10%-20% of total calories. The diet contains less than 300 mg/day of cholesterol.

Foods rich in saturated fat include: fatty meats such as bacon and sausage; poultry skin; dairy products such as butter, whole milk, cheese, cream, ice cream; palm oil; coconut oil; palm kernel oil; and cocoa butter.

Cholesterol is found in all products of animal origin including: dairy products, meat, fish, poultry, and egg yolks. Organ meats are particularly high in cholesterol.

Egg substitutes are served for breakfast. Whole eggs, which are allowed in cooking, are limited to 3 per week. Skim milk is served.

LOW FAT/LOW CHOLESTEROL DIET

Nutrition Therapy for High Cholesterol

Food Group	Recommended Foods	Foods Not Recommended
Grains	Whole grain breads and cereals, including oats and barley Pasta, especially whole wheat or other grain types Brown Rice Low-fat crackers and pretzels	High-fat bakery products, such as doughnuts, biscuits, croissants, Danish pastries, pies and cookies Snacks made with partially hydrogenated oils, including chips, cheese puffs, snack mixes, regular crackers, butter flavored popcorn
Vegetables	Fresh, frozen, or canned vegetables without added fat or salt	Fried Vegetables Vegetables prepared with butter, cheese or cream sauce
Fruits	Fresh, frozen, canned, or dried fruit	Fried fruits Fruits served with butter or cream
Milk and milk products	Nonfat (skim) milk, low-fat, or 1% fat milk or buttermilk Nonfat or low-fat yogurt or cottage cheese Fat-free and low-fat cheese	Whole milk Reduced fat (2%) milk Whole milk yogurt or ice cream Cream Half-and-half Cream cheese Sour cream Cheese
Meat and other protein foods	Lean cuts of beef and pork (loin, leg, round, extra-lean hamburger) Skinless poultry Fish Venison and other wild game Dried beans and peas Nuts and nut butters Meat alternatives made with soy or textured vegetable protein Egg whites or egg substitute Cold cuts made with lean meat or soy protein	Higher fat cuts of meats (ribs, t-bone steak, regular hamburger) Bacon Sausage Colds cuts, such as salami or bologna Corned beef Hot dogs Organ meats (liver, brains, sweetbreads) Poultry with skin Fried meat, poultry, and fish Whole eggs and egg yolks
Fats and oils	Unsaturated oils (olive, peanut, soy, sunflower, canola) Soft or liquid margarines and vegetable oil spreads Salad dressings Seeds and nuts Avocado	Butter Stick margarine Shortening Partially hydrogenated oils Tropical oils (coconut, palm, and palm kernel oils)

LOW FAT/LOW CHOLESTEROL DIET

Nutrition Therapy for High Triglyceride Levels

Food Group	Recommended Foods	Foods Not Recommended
Grains	Whole grain, high-fiber breads Oatmeal and oat products Barley Brown rice Whole grain, high-fiber breakfast cereals Whole wheat pasta	Breads and cereals that contain saturated fat or *trans* fats, such as doughnuts, biscuits, croissants, or danish Commercially prepared muffins, pastries, pies, cookies, or cakes
Vegetables	Fresh, frozen, or canned vegetables The healthiest choices do not have added saturated fat or *trans* fat, added sugar, or salt	Vegetables that are fried or served with cheese, cream sauce, or butter
Fruits	Fresh, frozen, or canned fruits The healthiest choices do not have added saturated fat, *trans* fat or added sugar	Fruits that are fried or served with cheese, cream sauce or butter
Milk and Milk Products	Fat-free or low-fat milk and milk products Nonfat (skim) to 1% milk Low-fat buttermilk Nonfat or low-fat yogurt Fat-free or low-fat cheeses, including cottage cheese	Whole-fat dairy products, such as whole milk, regular cheese, cream, ice cream
Meat and Other Protein Foods	Fish, especially fatty types that are high in omega-3 fatty acids (salmon, albacore tuna, mackerel, sardines) Poultry without the skin Lean pork and beef (look for cuts marked "loin" or "round") Meal alternatives made with soy protein or textured vegetable protein, such as tofu or veggie burgers Dried beans and peas (such as black beans, pintos, lentils, split peas) Peanut butter Egg whites and egg substitutes	Fatty (marbled) cuts of meat, such as prime cuts of beef, ribs, T-bone steaks, regular hamburger Bacon or sausage Hot dogs Most cold cuts, such as salami and bologna Chicken or other poultry with skin on Whole eggs and egg yolks Commercially fried poultry, fish, meats
Fats and Oils	Canola oil, soybean oil, walnuts, flaxseed oil, and ground flaxseeds (all sources of heart-healthy omega-fatty acids) Other unsaturated fats, including olive oil, peanut oil, avocado, nuts, and seeds Soft or liquid margarines	Butter Stick margarine Shortening Lard Coconut oil, palm kernel oil, or cottonseed oil Hydrogenated oil (the source of *trans* fats)

Nutrition Therapy for High Triglyceride Levels continued

Food Group	Recommended Foods	Foods Not Recommended
Other		Commercially fried snack foods Nondairy cream substitutes made with coconut oil Sugar, brown sugar, corn syrup Cakes, candies, cookies, snack and dessert foods Sweetened beverages

Sodium-Controlled Diets

The Sodium Controlled Diet may be used to manage hypertension in sodium-sensitive individuals, cardiovascular disease, impaired liver and kidney function and to help promote the loss of excess fluids in residents with edema or ascites.

A physician's order is required to serve a salt-substitute to a resident on a sodium-restricted diet.

The following pages provide a list of **Recommended Foods** in order to maintain a sodium-restricted diet. Remember, most foods should have less than 300 mg sodium per serving. This chart is intended for reference and does not mandate diet planning.

No Added Salt

The No Added Salt Diet is based on the regular menu with the elimination of salt at the table. The goal total sodium content of the diet is 4000 to 6000 mg daily. This level of restriction is appropriate in long term care to maintain palatability and encourage consumption to maintain weight or prevent weight loss.

2 Gram Sodium

The 2 Gram Sodium Diet is planned with a goal of 2000 mg (±200mg) of sodium per day. Generally, regular versions of recipes and food items are incorporated into the sodium-controlled diets as long as the integrity of the diet is maintained. At times, the menu item does use a salt-free recipe to stay within the stated range of sodium. Guidelines for the 2 Gram Sodium Diet follow.

SODIUM CONTROLLED DIETS

Low – Sodium Nutrition Therapy

Food Groups	Best Choices	Limit or Avoid
Grains	Choose a bread that is <80 mg per slice Home-made bread made with reduced-sodium baking soda Many cold cereals, especially shredded wheat and puffed rice Oats, grits or cream of wheat Dry pastas, noodles, quinoa, and rice	Breads or crackers topped with salt Cereals (hot/cold) more than 300 mg of sodium per serving Biscuits, cornbread, and other "quick" breads prepared with baking soda Pre-packaged bread crumbs Self-rising flours
Vegetables	Fresh and frozen vegetables without added sauces, salt, or sodium Homemade soups (salt free of low sodium) Low-sodium or sodium-free canned vegetables and soups	Canned vegetables (unless they are salt-free or low-sodium) Frozen vegetables with seasonings and sauces Sauerkraut and pickled vegetables Canned or dried soups (unless they are salt-free or low-sodium) French fries and onion rings
Fruits	Fresh and canned fruits Dried fruits, such as raisins, cranberries, and prunes	Dried fruits preserved with sodium-containing additives
Dairy (Milk and Milk Products)	Milk or milk powser; Rice Milk; Soy Milk Yogurt, including Greek yogurt Small amounts of natural cheese (blocks of cheese) or reduced-sodium cheese can be used in moderation (Swiss cheese, ricotta cheese, and fresh mozzarella are lower in sodium than the others) Regular or soft cream cheese Low Sodium cottage	Buttermilk Processed cheeses such as Cheese Wiz, Velveeta, and queso Cottage cheese Feta Cheese Shredded cheese has more sodium than blocked cheeses "Singles" cheese slices String cheese

SODIUM CONTROLLED DIETS (continued)

Food Group	Foods Recommended	Foods Not Recommended
Protein Foods (Meat, Poultry, Fish and Beans)	Fresh meats and fish; turkey bacon (check nutrition labels – make sure they are not packed in a sodium solution) Canned or packed tuna (no more than 4 oz at 1 serving) Dried beans and peas Edamame Eggs Unsalted nuts or peanut-butter	Cured meats: bacon, ham, sausage, pepperoni and hot dogs Canned meats (chili, Vienna sausage, sardines, and span) Smoked fish and meats Frozen meals that are >600 mg of sodium Store bought egg beaters (with added sodium)
Desserts and Snacks	Fresh fruit or applesauce Angel food cake Granola bars Unsalted pretzels, popcorn or nuts Pudding or Jell-O with Cool-Whip Topping Home-made rice-crispy treats, vanilla wafers Frozen fruit bars	
Fats	Tub or liquid margarine Unsaturated fat oils (canola, olive, corn, sunflower, safflower, peanut)	Salted butter or margarine
Condiments	Fresh or dried herbs Low-sodium ketchup Vinegar Lemon or lime juice Pepper Salt-free seasoning mixes and marinades	Salt Seasoning mixes containing salt Bouillon cubes Catsup or ketchup Barbecue or Worcestershire sauce Soy sauce Salsa, pickles, olives, relish Salad dressing
Alcohol	Check with your doctor	

SODIUM CONTENT OF FOODS

High Sodium (more than 300 mg)		
Food	**Serving**	**Mg**
Bacon	2 slices	300
Bagel, 4", egg	1 each	450
Bagel, 4": plain, onion or seeded	1 each	400
Barbeque sauce	2 Tbsp	350
Beans, baked, plain	½ cup	435
Beans, garbanzo	½ cup	360
Beans, kidney, canned	½ cup	440
Beans, lima, canned	½ cup	405
Beef, dried	1 oz	790
Biscuit, 2 ½"	1 each	350
Catsup	2 Tbsp	335
Cheese, American	1 oz	400
Cheese, cottage	½ cup	460
Cheese, feta	1 oz.	315
Corn, creamed, canned	½ cup	365
Croissant	2 oz.	425
Fish, salmon, canned	3 oz.	470
Fish, salmon, smoked	3 oz.	670
Fish, sardines, canned	3 oz.	430
Frankfurter, beef or pork	1 each	510
Ham	3 oz.	1,125
Lobster	3 oz.	325
Miso	½ cup	1,280
Mushrooms, canned	½ cup	330
Pickle, dill	1 large	570
Potatoes, au gratin or	½ cup	500
Pretzels	1 oz.	400
Pudding, instant,	½ cup	420
Salad, dressing, Italian,	2 Tbsp	485
Salami, dry or hard	1 oz.	600
Salt, table	1 tsp	2,325
Sauerkraut, canned	½ cup	780
Soup, canned	1 cup	700-1,000
Soy sauce	1 Tbsp	900
Teriyaki sauce	1 Tbsp	690
Tomato or vegetable juice,	½ cup	325
Tomato sauce, canned	½ cup	640
Tomato sauce, spaghetti	½ cup	510
Veggie or soy patty	1 each	380

Renal Diet

The Renal Diet is intended for residents with End-Stage Renal Disease requiring hemodialysis or peritoneal dialysis treatment. The diet is high in protein with limited sodium, potassium, phosphorus, and fluids.

Fluids are typically restricted in this population. However, specific fluid restrictions must be determined on an individual basis. At breakfast, the menu provides 8 oz of milk, 8 oz of coffee or tea and 4 oz of juice. At lunch, dinner, and HS Snack a 4 oz beverage is provided. Soup is not planned for the renal diet.

The following recommendations from the National Renal Diet, Professional Guide, Second Edition* are the guidelines used for the Renal Diet. The majority of the macro and micronutrients have specific ranges specified according to ideal body weight (IBW) or adjusted weight/day. Because the goals for the nutrients are individualized based on resident's weight and lab values, the goals stated for this diet are strictly guidelines that are used in menu planning. Further individualization must be determined at the facility level by appropriate personnel.

⌘	Protein	1.1 – 1.4 g/kg IBW or adjusted weight /day; ≥50% High Biological Value *IMPAC Goal: 80+ g*
⌘	Energy	30 –35 kcal/kg IBW or adjusted weight/day ≥60 years 35 kcal/kg IBW or adjusted weight/day if <60 years
⌘	Phosphorus	Individualized or <17 mg/kg IBW or adjusted weight/day *IMPAC Goal: 800 – 1200 mg*
⌘	Sodium	Individualized or 2,000 – 3,000 mg/day *IMPAC Goal: 2000 mg ± 200 mg*
⌘	Potassium	Individualized or 40mg/kg IBW or adjusted weight/day *IMPAC Goal: 2000 mg ± 200 mg*
⌘	Fluid	500 – 960 ml/day plus urine output *IMPAC Goal: 32 oz or 960 ml/day*
⌘	Calcium	Individualized, approximately 1,000 mg/day

*©2003, American Dietetic Association. "National Renal Diet Professional Guide, Second Edition" P 2.

Renal Diet, continued

Food Lists for End Stage Renal Disease begin on page 43. These lists are intended as a reference. For IMPAC, the foods that are typically restricted in the Renal Diet are the High Potassium Foods and High Sodium Foods. However, the menu planning philosophy is to permit foods as long as diet integrity is maintained.

The average sodium or potassium amount in the cycle (35 days) does not exceed 2000 mg (± 200 mg) per day. Reference for potassium levels of fruits and vegetables may be found on pages 43-45. Coffee and tea are served at breakfast only. Fats and concentrated carbohydrates are used to increase calories.

Because the Renal Diet planned in IMPAC is intended for residents requiring hemodialysis or peritoneal dialysis treatments, protein is not restricted. If a reference is needed for a more protein-restricted renal diet, refer to the Academy's Nutrition Care Manual, nutritioncaremanual.org.

In general, reducing the portion sizes of the following items listed will provide closer to 60 g of total protein:

1. Breakfast – reduce egg to ¼ cup and milk to ½ cup (difference of ~11g of protein)
2. Lunch – reduce lunch entrée by 1 oz edible protein (difference of ~7 g protein)

There are many variables that must be considered when providing a Renal Diet. Any changes made to the Renal Diet should be approved by appropriate personnel and be reflective of the physician's order.

Food Lists for End Stage Renal Disease, Hemodialysis

Fruit and Vegetable Choices

Low- Potassium (less than 150 mg) Fruit, Fruit Juices and Vegetables:		
Alfalfa sprouts	Cranberry juice and cranberry juice cocktails	Onions
Apples (1)	Cucumbers	Papaya nectar
Apple juice	Eggplant	Peaches (canned) and peach nectar
Applesauce	Endive	Pears (canned) and pear nectar
Apricot nectar	Fruit cocktail	Pineapples
Bamboo shoots (canned)	Gooseberries	Plums (1)
Bean sprouts	Grape juice	Radishes
Beets (canned)	Grapes	Raspberries
Blackberries	Green beans	Strawberries
Blueberries	Lemons	Tangerines (1)
Cabbage	Lemon juice	Water chestnuts (canned)
Carrots	Lettuce (all types, 1 cup)	Watercress
Cauliflower	Limes	Watermelon
Corn	Lime juice	
Cranberries	Mushrooms	

Medium-Potassium (150-250 mg) Fruit, Fruit Juices and Vegetables:	
Asparagus	Mixed vegetables
Broccoli	Papayas
Cantaloupes	Peaches (fresh)
Celery	Pears (fresh)
Cherries	Peas
Figs (2 whole)	Peppers
Grapefruit	Rhubarb
Grapefruit juice	Summer squash
Kale	Turnips
Mango and mango nectar	Zucchini

Food Lists for End Stage Renal Disease, Hemodialysis

Fruit and Vegetable Choices (continued)

High-Potassium (more than 250 mg) Fruit, Fruit Juices and Vegetables:	
Fruits	**Vegetables**
Apricots (3)	Artichoke
Bananas (1 small)	Avocado
Dates (¼ cup)	Bamboo shoots (fresh, raw)
Honeydew melon	Beets (fresh)
Kiwifruit	Brussels sprouts
Nectarines	Chard
Orange (1)	Greens (such as beet, collard, and mustard)
Orange juice	Kohlrabi
Prune juice	Okra
Prunes (5)	Parsnips
Raisins	Potatoes
	Pumpkins
	Rutabagas
	Spinach
	Sweet potatoes
	Tomatoes
	Tomato sauce or puree
	Tomato juice or V-8 juice, low sodium
	Wax beans
	Winter squashes
	Yams

Food Lists for End Stage Renal Disease, Hemodialysis

Dairy and Other High-Phosphorous Choices	
Biscuits, muffins (1 small)	Nut butters (2 tablespoons)
Cake (1 slice, 2x2-inch piece)	Nuts (¼ cup)
Cheese (1 ounce)	Organ meats (1 ounce)
Condensed and evaporated milk (¼ cup)	Pancakes, waffles (1; 4-inch diameter)
Cooked, dried beans and peas (½ cup)	Pudding, custard (½ cup)
Cottage cheese (¼ cup)	Sardines (1 ounce)
Granola, oatmeal (½ cup)	Soy milk (1 cup)
Ice milk or ice cream (½ cup)	Tofu (¼ cup)
Light cream or half-and-half (½ cup)	Tortillas, corn (2; 6-inch diameter)
Milk, all kinds (½ cup)	Vegetarian meat replacements (such as Garden burgers and Boca burgers) (2 ounces)
Milkshake (½ cup)	Whole wheat cereal, bran cereals (½ cup)
Non-diary "milk" replacements (1 cup)	Yogurt, plain or fruit-flavored (½ cup)

Food Lists for End Stage Renal Disease, Hemodialysis

Protein Choices

Animal Protein Foods

Beef	1 ounce
Egg replacements	¼ cup
Eggs	1 large
Fish	1 ounce
Lamb	1 ounce
Pork	1 ounce
Poultry	1 ounce
Shellfish	1 ounce
Veal	1 ounce
Wild game	1 ounce

Food Lists for End Stage Renal Disease, Hemodialysis

Bread, Cereal and Grain Choices

Breads and Rolls

Bagel	½ small
Bread, all kinds	1 slice or 1 ounce
Bun, hamburger or hot dog type	½
Cornbread, homemade	1 piece or 2 ounces
Danish pastry or sweet roll	½, small
Dinner roll or hard roll	1, small
Doughnut	1, small
English muffin	½
Pita or pocket bread	½, 6-inch diameter
Tortilla, flour	1, 6-inch diameter

Cereals and Grains

Low-sodium, dry cereals (such as Corn Pops, Sugar Smacks, puffed wheat, or puffed rice)	1 cup or 1 ounce
Cooked cereals (such as cream of rice or wheat, farina, Malt-o-Meal)	½ cup
Grits, cooked	½ cup
Pasta, cooked (such as noodles, macaroni, spaghetti)	½ cup
Rice, cooked	½ cup

Crackers and Snacks

Crackers, unsalted	4, 2-inch crackers
Graham crackers	3 squares
Melba toast	3 oblong pieces
Popcorn, unsalted	1 ½ cups popped
Pretzels, unsalted sticks or rings	¾ ounce or 10 sticks
Tortilla chips, unsalted	¾ ounce or 9 chips

Desserts

Sugar cookies (4)
Shortbread cookies (4)
Sugar wafers (4)
Vanilla wafers (10)

Food Lists for End Stage Renal Disease, Hemodialysis

Bread, Cereal and Grain Choices (continued)

Grain Foods with Added Sodium and Phosphorous

Biscuits, muffins	1 small
Cake	1/20 round cake, or 2x2 inch square
Cornbread from mix	1 piece or 2 ounces
Fruit pie	1/8 pie
Oatmeal	½ cup
Pancakes, waffles	1, 4-inch diameter
Pretzels, salted sticks or rings	¾ ounce or 10 sticks
Dry cereals, most brands	¾ cup
RyKrisp	3 crackers
Sandwich cookie	4 cookies
Whole-wheat cereals, bran cereals	½ cup

Fluid Choices

Note: Fluids are any drink or food that is liquid at room temperature.

Clear or fruit-flavored drinks that have bubbles	Popsicles, juice bars
Coffee	Soda pop
Fruit drinks	Soup
Fruit or vegetable juice	Tea
Ice cream, frozen yogurt, sherbet	Water
Milk, non-dairy creamers	Jell-O

Foods Not Recommended

- Foods that are high in sodium (salt), potassium, and/or phosphorous
- High-potassium fruits and vegetables
- High-phosphorous foods
- Whole-wheat products
- Table salt and salt blends
- Soy sauce and other Asian sauces
- Convenience foods (such as frozen dinners, canned or dried soups, stews, casseroles, and deli meals)
- Salted snack foods
- Vegetables that are canned or processed with salt
- Cured or processed meats and cheeses

Reduced Concentrated Sweets

The Reduced Concentrated Sweets (RCS) Diet follows the regular diet. However, regular desserts are served only when carbohydrate content does not exceed 30g per serving. Desserts may be a half portion, a modified version of the regular recipe that provides less sugar, or may be substituted with a fruit. Artificial sweeteners replace sugar.

Liberalization from the calorie-count type of diabetic diet is particularly applicable in the long term care facility. Meals are served at routine times with consistent meal portions. Portions are of moderate size, which promote blood glucose control.

Glucose control is the overall goal in any diabetic population. Special considerations should be made for the older adult relating to restriction in the diet vs. adjusting medication. Severely restricting the diet affects the resident's quality of life.

Controlled Carbohydrate Diet

The Controlled Carbohydrate (CCHO) Diet is planned limiting carbohydrates at meal and snack times. The CCHO Diet permits foods that provide concentrated sources of carbohydrates if the food item fits within the goal carbohydrate content planned for that meal.

Individual responses in blood glucose to carbohydrate patterns of meals need to be evaluated by appropriate personnel to determine any needed adjustments in medication or food intake. The Academy indicates that the *source* of the carbohydrate is not as critical as the *total amount* of carbohydrate consumed at a meal or snack. (American Diabetes Association: Evidence-Based Nutrition Principles and Recommendations for the Treatment and Prevention of Diabetes and Related Complications. *Diabetes Care* 25: 202-212, 2002.)

The IMPAC Menu provides an average of 60-75g of carbohydrate at each of the meals and 15-30g of carbohydrate at the HS snack. The carbohydrate goal range for each of the meals is 60-75g (a difference of one starch exchange). The calorie goal range is 1800 – 2200 kcal per day total.

Meal	**Goal Range**
Breakfast	60 ± 15g CHO
Lunch	60 ± 15g CHO
Dinner	60 ± 15g CHO
HS Snack	15 – 30g CHO

Significant effort is made to incorporate as much of the Regular Diet into the CCHO Diet as possible and yet maintain the appropriate range of carbohydrates. At times, portion sizes may be changed or a different menu item may be used so that the goal range of carbohydrates is met.

The following portion sizes are typically used for the food items noted:

- Juice – ½ cup
- Sandwiches – 1 slice of bread only
- Rice and Pasta – can have ½ cup if it fits for the meal
- Desserts – may use ½ portion of the regular dessert or substitute a fruit or other item with fewer carbohydrates per serving

Calorie Controlled Diets

The **Calorie Controlled Diet** types and the **1800 Calorie/2 gram Sodium Controlled Diet** may be used in the nutrition management of diabetes or to promote weight change in an individual.

The latest edition of the Choose Your Foods: Exchange Lists for Diabetes (2014) is used as a reference. For more information than what is provided in this Menu Guide, you can purchase this booklet for a nominal fee online at www.eatright.org or contact the Academy of Nutrition and Dietetics at 800-366-1655 or the American Diabetes Association at 800- 342-2383.

The 1200, 1500, 1800, and 2000 calorie levels are planned and provide approximately 50% carbohydrate, 20% protein, and 30% fat. The goal is to have calorie total vary by no more than 100 calories/day. There may be exceptions to this when production considerations outweigh calorie requirements.

The Calorie Controlled/Sodium Controlled Diets contain 1800 calories and 2000 mg of sodium ± 200 mg per day. High sodium foods are restricted.

The Exchange Reference List included in the IMPAC Menu Box provides specific diabetic exchanges based on the nutrient analysis of a recipe. An updated list is included with every new menu cycle. The IMPAC Exchange List has been developed based on a computerized nutritional analysis of recipes in the IMPAC recipe database. The Exchange Reference List is particularly helpful when planning meals containing combination foods.

Exchange Lists

Foods are grouped together that provide a similar amount of the macronutrients. The following chart provides carbohydrate, protein, fat and calories per group.

Food Group	Carbohydrate g	Protein g	Fat g	Calories
Starch: Breads; cereals; grains and pasta; starchy vegetables; crackers and snacks; and beans, peas, and lentils	15	3	1	80
Fruits	15	-	-	60
Milk and Milk Substitutes				
Fat-free, low-fat (1%)	12	8	0-3	100
Reduced-fat (2%)	12	8	5	120
Whole	12	8	8	160
Nonstarchy Vegetables	5	2	-	25
Sweets, Desserts, and Other Carbohydrates	15	Varies	Varies	Varies
Proteins				
Lean	-	7	2	45
Medium-fat	-	7	5	75
High-fat	-	7	8	100
Plant-based	varies	7	varies	varies
Fat	-	-	5	45

DIABETIC CALORIE CONTROLLED MEAL PATTERN

DAILY FOOD PATTERN

CALORIES	1200	1500	1600 *	1800	2000	2200 *	2400 *
CONTENT							
Carbohydrate (g)	154	184	184	214	244	271	283
Protein (g)	70	76	83	89	96	110	125
Fat (g)	35	50	60	65	70	75	85
BREAKFAST							
Meat	1	1	1	1	2	2	2
Starch/Bread	1	2	2	3	3	3	3
Fat	0	1	2	2	2	2	2
Fruit	1	1	1	1	2	2	2
Milk, Skim	1 skm	1 skm	1 skm	1 skm	1 skm	1 skm	1 skm
NOON MEAL							
Meat	2	2	3	3	3	3	3
Starch/Bread	2	2	2	2	2	3	3
Fat	1	2	2	3	3	3	4
Fruit	1	1	1	1	2	1	1
Vegetable	1	1	1	1	1	1	1
Milk	0	0	0	0	0	0	1 skm
EVENING MEAL							
Meat	2	2	2	2	2	2	3
Starch/Bread	1	2	2	3	3	3	3
Fat	1	2	2	2	2	3	3
Fruit	1	1	1	1	1	1	1
Vegetable	1	1	1	1	1	1	1
Milk	0	0	0	0	0	1 skm	1 skm
HS FEEDING							
Milk	1 skm	1 skm	1 skm	1 skm	1 skm	1 skm	1 skm
Starch/Bread	1	1	1	1	1	2	2

* Not planned for National IMPAC Menu

EXCHANGE LISTS FOR MEAL PLANNING

STARCH

Starch Exchange = 15 g carbohydrate, 3 g protein, 0-1 g fat, 80 calories

Examples of starches:
Cereals, grains, pasta, breads, crackers, starchy vegetables, and cooked beans, peas, and lentils
Typical portion sizes after cooking:

- ½ cup of cooked cereal, grain or starchy vegetable
- 1 oz of a bread product, such as 1 slice of bread
- ¾ to 1 oz of most snack foods (Some snack foods may also have added fat.)
- $^1/_3$ cup rice or pasta

Bread

Food	Serving Size	Food	Serving Size
Bagel	¼ large bagel (1 oz)	Pancake	1 pancake (4 in. across, ¼ in. thick)
Biscuit	1 biscuit (2½ in. across)	Pita	½ pita (6 in. across)
Bread-reduced calorie, light	2 slices (1½ oz)	Roti	1 oz
Bread-white, whole-grain, French, Italian, pumpernickel, rye, sourdough, unfrosted raisin or cinnamon	1 slice (1 oz)	Roll, plain	1 small roll (1 oz)
Chapatti	1 oz	Sandwich flat buns, whole-wheat	1 bun, including top and bottom (1½ oz)
Ciabatta	1 oz	Stuffing, bread	1/3 cup
Cornbread	1¾-in. cube (1½ oz)	Taco shell	2 taco shells (each 5 in. across)
English muffin	½ muffin	Tortilla, corn	1 small tortilla (6 in. across)
Hot dog bun or hamburger bun	½ bun (¾ oz)	Tortilla, flour (white or wheat)	1 small tortilla (6 in. across) or 1/3 large tortilla (10 inches across)
Naan	3¼- in. square (1 oz)	Waffle	1 waffle (4 in. square or 4 in. across)

Cereals and Grains

Food	Serving Size	Food	Serving Size
Barley, cooked	1/3 cup	Kasha	½ cup
Bran, dry Oat Wheat	 ¼ cup ½ cup	Millet, cooked	1/3 cup
Bulgur (cooked)	½ cup	Muesli	¼ cup
Cereals bran, cooked (oats, oatmeal), shredded wheat (plain), sugar coated cereal	½ cup	Pasta, cooked	1/3 cup
Cereals puffed	1½ cup	Polenta, cooked	1/3 cup
Cereals, unsweetened, ready to eat	¾ cup	Quinoa, cooked	1/3 cup
Couscous	1/3 cup	Rice, white or brown, cooked	1/3 cup
Granola, low-fat	¼ cup	Tabbouleh (tabouli), prepared	½ cup
Granola, regular	¼ cup	Wheat germ	3 Tbsp
Grits, cooked	½ cup	Wild rice, cooked	½ cup

Starchy Vegetables			
Cassava or dasheen	1/3 cup	Plantain, ripe	1/3 cup
Corn	½ cup	Potato, Baked with skin Boiled, all kinds Mashed, with milk & fat French fried (oven baked)	 ¼ large (3 oz) ½ cup or ½ medium(3oz) ½ cup 1 cup (2oz)
Corn on cob, large	½ cob (5 oz)	Pumpkin puree, canned, no sugar added	¾cup
Hominy, canned	¾ cup	Squash, winter (acorn, butternut)	1 cup
Mixed vegetables with corn or peas	1 cup	Succotash	½ cup
Parsnips	½ cup	Yam or sweet potato, plain	½ cup
Peas, green	½ cup	Marinara, pasta or spaghetti sauce	½ cup

Crackers and Snacks			
Animal crackers	8	Pretzels	¾ oz
Crackers Crispbread Nut and rice Oyster Round, butter-type Saltine-type Sandwich-style Whole-wheat regular Whole-wheat thins	 2 to 5 pieces 10 crackers 20 crackers 6 6 3 5 (3/4 oz) 10 (3/4 oz)	Popcorn With butter No fat added	 3 cups 3 cups
Graham cracker, 2½ in. square	3 squares	Rice cakes, 4 in. across	2
Granola or snack bar	1 bar (¾ oz)	Snack chips, Baked (pita, potato) Regular (tortilla, potato)	 8 chips (3/4 oz) 13 chips (1 oz)
Matzoh	¾ oz	Oyster crackers	20
Melba toast	4 pieces		

Beans, Peas, and Lentils Count as 1 starch + 1 lean meat			
Baked beans	1/3 cup	Peas, cooked or canned, drained and rinsed (black eyed and split)	½ cup
Beans, cooked or canned, drained and rinsed (black, garbanzo, kidney, lima, navy, pinto, white)	½ cup	Refried beans, canned	½ cup
Lentils, cooked (any color)	½ cup		

Fruit List

One fruit exchange = 15 g carbohydrate and 60 calories
(weight includes skin, core, seeds, and rind)

Fruits:

Fresh, frozen, canned, dried fruits and fruit juices

Typical Portions:

- 1 small fruit (3/4 to 1 cup)
- ½ cup of canned or fresh fruit or unsweetened fruit juice
- 2 Tablespoons of dried fruit
- Canned fruit is either packed in juice, is "no sugar added" or in "extra light syrup"

Fruit			
Apple, unpeeled, small	1 (4 oz)	Honeydew melon	1 slice or 1 cup cubed (10 oz)
Applesauce, unsweetened	½ cup	Kiwi	½ cup sliced
Apples, dried	4 rings	Mandarin oranges, canned	¾ cup
Apricots, fresh	4 whole (5 ½ oz)	Mango, small	½ fruit (5 ½ oz) or (½cup)
Apricots, dried	8 halves	Nectarine	1 medium(5.5 oz)
Apricots, canned	½ cup	Orange, medium	1 (6½ oz)
Banana, small (about 4 in)	1 (4 oz)	Papaya	½ fruit or 1 cup cubed (8 oz)
Blackberries	1 cup	Peaches, fresh medium	1 (6 oz)
Blueberries	¾ cup	Peaches, canned	½ cup
Cantaloupe, small	1 cup diced	Pears, large, fresh	½ (4 oz)
Cherries, sweet, fresh	12 (3.5 oz)	Pears, canned	½ cup
Cherries, sweet, canned	½ cup	Pineapple, fresh	¾ cup
Dates	3 small or 1 large	Pineapple, canned	½ cup
Dried Fruits (blueberries, cherries, cranberries, mixed fruit, raisins)	2 Tbsp	Plantain, extra ripe, raw	¼ plantain (2¼ oz)
Figs, fresh	1 ½ large or 2 medium (3 ½ oz)	Plums, small	2 (5 oz)
Figs, dried	3 small	Plums, canned	½ cup
Fruit cocktail	½ cup	Pomegranate sees	½ cup
Grapefruit, large	½	Prunes (dried plums)	3
Grapefruit sections, canned	¾ cup	Raspberries	1 cup
Grapes, small	17 (3 oz)	Strawberries	1¼ cup whole berries
Guava	2 small guava (2 ½ oz total)	Tangerines, large	1 (6 oz)
Watermelon	1¼ cup diced		

Exchange Lists for Meal Planning, Fruit List (continued)

Fruit Juice			
Apple juice, cider	½ cup	Grapefruit juice	½ cup
Fruit juice blends, 100% juice	1/3 cup	Orange juice	½ cup
Grape juice	1/3 cup	Pineapple juice	½ cup
		Pomegranate juice	½ cup
Prune juice	1/3 cup		

Milk List

One milk exchange = 12 g carbohydrate and 8 g protein

Milk:
Grouped into low-fat, reduced-fat and whole Look for:

- Cheese on Meat and Meat Substitutes List
- Cream and other dairy fats on the Fats List

	Carbohydrate (grams)	Protein (grams)	Fat (grams)	Calories
Fat-free(skim), low fat (1%)	12	8	0-3	100
Reduced-fat (2%)	12	8	5	120
Whole	12	8	8	160

Milk and Yogurts		
Food	**Serving Size**	**Count as**
Fat-free or low-fat (1%)		
Milk, buttermilk, acidophilus milk, Lactose-free	1 cup	1 fat-free milk
Evaporated milk	½ cup	1 fat-free milk
Yogurt, plain or Greek flavored with an artificial sweetener	2/3 cup (6oz)	1 fat-free milk
Chocolate Milk	1 cup	1 fat-free milk + 1 carbohydrate
Reduced-fat (2%)		
Milk, acidophilus milk, kefir, Lactose-free	1 cup	1 reduced-fat milk
Yogurt, plain	2/3 cup (6 oz)	1 reduced-fat milk
Whole		
Milk, buttermilk, goat's milk	1 cup	1 whole milk
Evaporated milk	½ cup	1 whole milk
Yogurt, plain	(1 cup) 8 oz	1 whole milk
Chocolate milk	1 cup	1 hole milk

Dairy-Like Foods		
Food	**Serving Size**	**Count as**
Eggnog, fat-free	1/3 cup	1 carbohydrate
Eggnog, low-fat	1/3 cup	1 carbohydrate + ½ fat
Eggnog, whole milk	1/3 cup	1 carbohydrate + 1 fat
Rice Drink		
Flavored, low-fat	1 cup	2 carbohydrates
Plain, fat-free	1 cup	1 carbohydrate
Soy milk		
Light or low-fat, plain	1 cup	1/2 carbohydrate + ½ fat
Regular, plain	1 cup	1/2 carbohydrate + 1 fat
Yogurt		
With fruit, low-fat	2/3 cup (6 oz)	1 fat-free milk + 1 carbohydrate

Sweets, Desserts, and Other Carbohydrates List

Items on the Sweets, Desserts, and Other Carbohydrates List can be substituted for a carbohydrate or fat choice although vitamins and minerals are not as abundant in this list. Portion sizes are relatively small because the items listed often contain concentrated sources of carbohydrate and fat. Many of these foods don't equal a single choice. Some will also count as one or more fat choices.

Beverages, Soda, and Energy/Sports Drinks

Food	Serving Size	Count as
Cranberry juice cocktail	½ cup	1 carbohydrate
Energy drink	1 can (8.3 oz)	2 carbohydrates
Fruit drink or lemonade	1 cup (8 oz)	2 carbohydrates
Hot chocolate Regular Sugar-free or light	 1 envelope added to 8 oz of water 1 envelope added to 8 oz of water	 1 carbohydrate + 1 fat 1 carbohydrate
Soft drink (soda), regular	1 can (12 oz)	2 ½ carbohydrates
Sports drink	1 cup (8 oz)	1 carbohydrate

Brownies, Cake, Cookies, Gelatin, Pie, and Pudding

Food	Serving Size	Count as
Biscotti	1 oz	1 carbohydrate + 1fat
Brownie, small, unfrosted	1 1/4 inch square, 7/8 inch high (about 1 oz)	1 carbohydrate + 1 fat
Cake Angel food, unfrosted Frosted Unfrosted	 1/12 of cake (about 2 oz) 2 inch square (about 2 oz) 2 inch square (about 2 oz)	 2 carbohydrates 2 carbohydrates + 1 fat 1 carbohydrate + 1 fat
Cookies 100 calorie pack Chocolate chip Gingersnap Large cookie Sandwich, with crème Filling Sugar-free Vanilla wafer	 1 oz 2 cookies(2 ¼ inches across) 3 small (1 ½ in across) 1 cookie, 6 in. across 2 small or 1 large (3/4-1 oz) 1 large or 3 small (3/4 to 1 oz) 5 cookies	 1 carbohydrate + ½ fat 1 carbohydrate + 2 fats 1 carbohydrate 4 carbohydrates + 3 fats 1 carbohydrate + 1 fat 1 carbohydrate + 1-2 fats 1 carbohydrate + 1 fat
Cupcake, frosted	1 small (about 1¾ oz)	2 carbohydrate+1-1½ fats
Fruit cobbler	½ cup (3½ oz)	3 carbohydrates + 1 fat
Gelatin, regular	½ cup	1 carbohydrate
Pie Commercially prepared Fruit, 2 crusts Pumpkin or custard	 1/6 of 8 inch pie 1/8 of 8 inch pie	 3 carbohydrates + 2 fats 1½ carbohydrates+1½ fats
Pudding Regular (made with Reduced-fat milk) Sugar-free or sugar And fat-free (made With fat-free milk)	 ½ cup ½ cup	 2 carbohydrates 1 carbohydrate

Candy, Spreads, Sweets, Sweeteners, Syrups, and Toppings

Food	Serving Size	Count as
Blended sweeteners (mixtures of artificial sweeteners and sugar)	1 ½ Tbsp	1 carbohydrate
Candy bar, chocolate, dark or milk type	1 oz	1 carbohydrate + 2 fats
Candy, hard	3 pieces	1 carbohydrate
Chocolate "kisses"	5 pieces	1 carbohydrate + 1 fat
Coffee creamer Dry, flavored liquid, flavored	 4 tsp 2 Tbsp	 ½ carbohydrate + ½ fat 1 carbohydrate
Fruit snacks, chewy (pureed fruit concentrate)	1 roll (¾ oz)	1 carbohydrate
Fruit spreads, 100% fruit	1 ½ Tbsp	1 carbohydrate
Honey	1 Tbsp	1 carbohydrate
Jam, Jelly regular	1 Tbsp	1 carbohydrate
Sugar	1 Tbsp	1 carbohydrate
Syrup Chocolate Light (pancake type) Regular (pancake type)	 2 Tbsp 2 Tbsp 1 Tbsp	 2 carbohydrates 1 carbohydrate 1 carbohydrate

Condiments and Sauces

Food	Serving Size	Count As
Barbeque sauce	3 Tbsp	1 carbohydrate
Cranberry sauce, jellied	¼ cup	1 ½ carbohydrate
Curry sauce	1 oz	1 carbohydrate + 1 fat
Gravy, canned or bottled	½ cup	½ carbohydrate + ½ fat
Hoisin Sauce	1 Tbsp	½ carbohydrate
Marinade	1 Tbsp	½ carbohydrate
Plum sauce	1 Tbsp	½ carbohydrate
Salad dressing, fat-free, low-fat, cream-based	3 Tbsp	1 carbohydrate
Sweet and sour sauce	3 Tbsp	1 carbohydrate

Doughnuts, Muffins, Pastries, and Sweet Breads

Food	Serving Size	Count As
Banana nut bread	1 inch slice (1 oz)	2 carbohydrates + 1 fat
Doughnut Cake, plain Hole Yeast type, glazed	 1 medium (1 ½ oz) 2 holes (1oz) 3 ¾ inches across (2 oz)	 1 ½ carbohydrates + 2 fats 1 carbohydrate + 1 fat 2 carbohydrates + 2 fats
Muffin, lower-fat	1 muffin (4 oz)	4 carbohydrates + ½ fats
Muffin, regular	1 muffin (4 oz)	4 carbohydrate + 2½ fat
Scone	1 scone (4 oz)	4 carbohydrate + 3 fats
Sweet roll or Danish	1 (2 ½ oz)	2 ½ carbohydrates + 2 fats

Exchange Lists for Meal Planning (continued)

Frozen Bars, Frozen Desserts, Frozen Yogurt, and Ice Cream

Food	Serving Size	Count As
Frozen pops	1	½ carbohydrate
Fruit juice bars, frozen, 100% juice	1 bar (3 oz)	1 carbohydrate
Ice cream Fat- Fat-free Light No sugar added Regular	 ½ cup ½ cup ½ cup ½ cup	 1 ½ carbohydrates 1 carbohydrate + 1 fat 1 carbohydrate + 1 fat 1 carbohydrate + 2 fats
Sherbert, sorbet	½ cup	2 carbohydrates
Yogurt, frozen Fat-free Regular Greek, lower fat or fat-free	 1/3 cup ½ cup ½ cup	 1 carbohydrate 1 carbohydrate + 0-1 fat 1 ½ Carbohydrates

Granola Bars, Meal Replacement Bars/Shakes, and Trail Mix

Food	Serving Size	Count As
Granola or snack bar, regular or low-fat	1 bar (1oz)	1 ½ carbohydrates
Meal replacement bar	1 bar (1 1/3 oz)	1 ½ carbohydrates + 0-1 fat
Meal replacement bar	1 bar (2 oz)	2 carbohydrates + 1 fat
Meal replacement shake, reduced calorie	1 can (10-11 oz)	1 ½ carbohydrates + 0-1 fat
Trail mix Candy/nut-based Dried fruit-based	 1 oz 1 oz	 1 carbohydrate + 2 fats 1 carbohydrate + 1 fat

Vegetable List

One vegetable exchange = 5 g carbohydrates, 2 g protein, 0 g fat, and 25 calories

Typical Portions:

- ½ cup of cooked vegetables or vegetable juice
- 1 cup of raw vegetables

Look for:

- Peas, corn, winter squash and potatoes on the Starchy Vegetable list
- The tomato sauce referred to in this list is different from spaghetti/pasta sauce which usually contains added sugar and is on the Starchy Vegetables list
- Salad greens (like arugula, chicory, endive, escarole, leaf or iceberg lettuce, purslane, romaine, radicchio, spinach, watercress) are on the Free Foods list.

Nonstarchy Vegetables		
Amaranth or Chinese Spinach	Cucumber	Rutabaga
Artichoke	Daikon	
Artichoke hearts	Eggplant	Sauerkraut (drained and rinsed)
	Fennel	
Asparagus	Gourds (bitter, bottle, luffa, bitter melon)	
Baby corn	Green onions or scallions	Spinach
	Greens (collard, dandelion, purslane, mustard, turnip)	Squash (summer, yellow, pattypan, crookneck, zucchini)
Bamboo shoots		
Beans (green, wax, Italian)	Hearts of palm	
Bean sprouts	Jicama	Sugar snap peas
Beets	Kale	Swiss chard
	Kohlrabi	
Broccoli	Leeks	Tomato
Brussels sprouts	Mixed vegetables (starchy vegetable legumes or pasta)	Tomatoes, canned
Cabbage (green, red, bok choy, Chinese)		Tomato
	Mushrooms, all kinds, fresh	Tomatoes, canned
Carrots	Okra	Tomato sauce (unsweetened)
Cauliflower		
Celery	Onions	Tomato/vegetable juice
Chayote	Pea pods	
Coleslaw, packaged, no dressing	Peppers (all varieties)	Turnips
	Radishes	Water chestnuts

Protein List

	Carbohydrate (g)	Protein (g)	Fat (g)	Calories
Lean protein	0	7	2	45
Medium-fat protein	0	7	5	75
High-fat protein	0	7	8	100
Plant-based protein	Varies	7	varies	varies

Consider:

- Weigh meat after cooking and without bones or fat
- 4 oz raw meat = 3 oz cooked meat

Typical Portions:

- 1 oz meat, fish, or poultry is about the size of a small matchbox
- 3 oz meat = 3 meat choices and is about the size of a deck of playing cards
- 2 tablespoons peanut butter is about the size of a golf ball
- The palm of a woman's hand is about the size of 3 to 4 oz of cooked, boneless meat. The palm of a man's hand is about the size of 4 to 6 oz of cooked, boneless meat
- 1 oz of cheese is about the size of 4 dice

Look for:

- Dried beans, peas and lentils are also on the Starch List
- Nut butters in smaller amounts are found in the Fats list

Lean Protein

Food	Amount
Beef: ground (90% or higher lean/10% or lower fat); select or Choice grades trimmed of fat: roast (chuck, round, rump, Sirloin), steak (cubed, flank, porterhouse, T-bone), tenderloin	1 oz
Beef jerky	½ oz
Cheeses with 3 grams of fat or less per oz	1 oz
Curd-style cheeses: cottage-type (all kinds); ricotta (fat-free or light)	¼ cup (2 oz)
Egg substitutes, plain	¼ cup
Egg whites	2
Fish, fresh or frozen, plain: catfish, cod, flounder, haddock, halibut, orange roughy, salmon, tilapia, trout	1 oz
Fish, smoked: herring or salmon (lox)	1 oz
Game: buffalo, ostrich, rabbit, venison	1 oz
Hot dog with 3 grams of fat or less per oz *Note: May contain carbohydrate.*	1
Lamb: chop, leg, or roast	1 oz
Organ meat: heart, kidney, liver *Note: May be high in cholesterol*	1 oz
Oyster, fresh or frozen	6 medium
Pork, lean Canadian bacon Rib or loin chop/roast, ham, tenderloin	 1 oz 1 oz
Poultry, without skin: Cornish hen, chicken, domestic duck or goose (well-drained of fat), turkey; lean ground turkey or chicken	1 oz
Processed sandwich meats with 3 grams of fat or less per oz: chipped beef, thin-sliced deli meats, turkey ham, turkey pastrami	1 oz
Salmon, fresh or canned	1 oz
Sardines, canned	2 small sardines
Sausage with 3 grams of fat or less per oz	1 oz
Shellfish: clams, crab, imitation shellfish, lobster, scallops, shrimp	1 oz
Smoked herring or salmon (lox)	1 oz
Tuna, fresh canned in water or oil, drained	1 oz
Veal: cutlet (no breading), loin chop, roast	1 oz

Medium-Fat Protein

Food	Amount
Beef trimmed of visible fat: ground beef (85% or lower lean/15% or higher fat), corned beef, meatloaf, prime cuts of beef (rib roast), short ribs, tongue	1 oz
Cheeses with 4-7 grams of fat per oz: feta, mozzarella, pasteurized processed cheese spread, reduced-fat cheeses	1 oz
Egg *Note: high in cholesterol, so limit to 3 per week*	1
Fish, any fried product	1 oz
Lamb: ground, rib roast	1 oz
Pork: cutlet, ground, shoulder roast	1 oz
Poultry with skin: chicken, dove, pheasant, turkey, wild duck or goose; fried chicken	1 oz
Ricotta cheese (regular or part-skim)	2 oz or ¼ cup
Sausage with 4-7 grams of fat per oz	1 oz

High-Fat Protein

Food	Amount
Bacon Pork Turkey	 2 slices (16 slices per pound or 1 oz each, before cooking 3 slices (1/2 oz each before cooking)
Cheese, regular: American, bleu, brie, cheddar, hard goat, Monterey jack, Parmesan, queso, Swiss	1 oz
Hot dog: beef, pork, or combination (10 per pound-sized package)	1
Hot dog: turkey or chicken (10 per 1 lb-sized package)	1
Pork: sausage, spareribs	1 oz
Processed sandwich meats with 8 grams of fat or more per oz: bologna, pastrami, hard salami	1 oz
Sausage with 8 grams of fat or more per oz: bratwurst, chorizo, Italian, knockwurst, Polish, smoked, summer	1 oz

Plant-Based Protein

Food	Amount	Count as
"Bacon" strips, soy-based	3 strips	1 lean protein
Baked beans, canned	1/3 cup	1 starch + 1 lean protein
Beans, cooked: black, garbanzo, kidney, lima, navy, pinto, white cooked or canned, drained and rinsed	½ cup	1 starch + 1 lean protein
"Beef" or "Sausage" crumbles, meatless	1 oz	1 lean protein
"Chicken" nuggets, soy-based	2 nuggets (1 ½ oz)	½ carbohydrate + 1 medium-fat protein
Edamame, shelled	½ cup	½ carbohydrate + 1 lean protein
Falafel (spiced chickpea and wheat patties)	3 patties (about 2 inches across)	1 carbohydrate + 1 high-fat protein
Hotdog, meatless, soy-based	1 hot dog (1 ½ oz)	1 lean protein
Hummus	1/3 cup	1 carbohydrate + 1 medium- fat protein
Lentils, any color, cooked or canned, drained and rinsed	½ cup	1 starch + 1 lean protein
Meatless burger, soy-based	3 oz	½ carbohydrate + 2 lean protein
Meatless burger, vegetable- and starch-based	1 patty (about 2 ½ oz)	1/2 carbohydrate + 1 lean protein
Meatless deli slices	1 oz	1 lean protein
Mycoprotein ("chicken" tenders or crumbles), meatless	2 oz	½ carbohydrate + 1 lean protein
Nut spreads: almond butter, cashew butter, peanut butter, soy nut butter	1 Tbsp	1 high-fat protein
Peas (black-eyed and split peas), cooked or canned, drained and rinsed	½ cup	1 starch + 1 lean protein
Refried beans, canned	½ cup	1 starch + 1 lean protein
"Sausage" breakfast-type patties, meatless	1 (1 ½ oz)	1 medium-fat protein
Soy nuts, unsalted	¾ oz	½ carbohydrate + 1 medium-fat protein
Tempeh, plain, unflavored	¼ cup (1½ oz)	1 medium-fat protein
Tofu	4 oz (1/2 cup)	1 medium-fat protein
Tofu, light	4 oz (1/2 cup)	1 lean protein

Fat List

One fat exchange = 5g fat, 45 calories

Fats are divided into 3 groups, based on the main type of fat they contain: unsaturated fats (omega-3, monounsaturated, and polyunsaturated), saturated fats, and trans fats.

Typical Portions:
- 1 teaspoon of oil or solid fat
- 1 tablespoon of salad dressing

Look for:
- Fat-free salad dressings on the Sweets, Desserts and Other Carbohydrates List
- Nondairy coffee creamers, whipped topping, and fat-free products, such as margarines, salad dressings, mayonnaise, sour cream and cream cheese on the Free Foods List
- Bacon and peanut butter, when used in smaller amounts, are counted as fat choices

Sources of Unsaturated Fats - Monounsaturated Fats

Food	Serving Size
Almond Milk (unsweetened)	1 cup
Avocado, medium	2 Tbsp (1 oz)
Nut butters (*trans* fat-free): Almond butter, cashew butter, peanut butter (smooth or crunchy)	1 ½ tsp
Nuts	
Almonds	6 nuts
Brazil	2 nuts
Cashews	6 nuts
Filberts (hazelnuts)	5 nuts
Macadamia	3 nuts
Mixed (50% peanuts)	6 nuts
Peanuts	10 nuts
Pecans	4 halves
Pistachios	16 nuts
Oil: Canola, olive, peanut	1 tsp
Olives	
Black (ripe)	8 large
Green, stuffed	10 large
Spread, plant stanol ester-type	
Light	1 Tbsp
Regular	2 tsp

Sources of Unsaturated Fats - Polyunsaturated Fats

Food	Serving Size
Margarine: lower-fat spread (30% - 50% vegetable oil, *trans* fat-free)	1 Tbsp
Margarine: stick, tub (*trans* fat-free), or squeeze (*trans* fat-free)	1 tsp
Mayonnaise	
Reduced-fat	1 Tbsp
Regular	1 tsp
Mayonnaise-style salad dressing	
Reduced-fat	1 Tbsp
Regular	2 tsp
Nuts	
Pignolia (pine nuts)	1 Tbsp
walnuts, English	4 halves
Oil: corn, cottonseed, flaxseed, grapeseed, safflower, soybean, sunflower	1 tsp
Salad dressing, regular	1 Tbsp
Salad dressing, reduced-fat *Note: May be high in carbohydrate*	2 Tbsp
Seeds:	
Flaxseed, whole	1 1/2 Tbsp
pumpkin, sunflower	1 Tbsp
Sesame seeds	1 Tbsp
Tahini or sesame paste	2 tsp

Sources of Saturated Fats

Food	Serving Size
Bacon, cooked, regular or turkey	1 slice
Butter	
Reduced-fat	1 Tbsp
Stick	1 tsp
Whipped	2tsp
Butter blends made with oil	
Reduced-fat or light	1 Tbsp
Regular	1 ½ tsp
Chitterlings, boiled	2 Tbsp (1/2 oz)
Coconut, sweetened, shredded	2 Tbsp
Coconut milk	
Light	1/3 cup
Regular	1 ½ Tbsp
Cream	
Half and half	2 Tbsp
Heavy	1 Tbsp
Light	1 ½ Tbsp
Whipped	2 Tbsp
Whipped, pressurized	¼ cup
Cream cheese	
Reduced-fat	1 ½ Tbsp (3/4 oz)
Regular	1 Tbsp (1/2 oz)
Lard	1 tsp
Oil: coconut, palm, palm kernel	1 tsp
Salt pork	1/4 oz
Shortening , solid	1 tsp
Sour cream	
Reduced-fat or light	3 Tbsp
Regular	2 Tbsp

Free Foods List

Free food:

- Less than 20 calories or less than 5 grams carbohydrate per serving
- Limit to three servings per day, spread throughout the day
- Food and drink choices listed here without a serving size can be eaten whenever you like.

Low Carbohydrate Foods

Food	Serving Size
Candy, hard (regular or sugar-free)	1 piece
Carrots, cauliflower, or green beans, cooked	¼ cup
Cranberries or rhubarb, sweetened with sugar substitute	½ cup
Cucumber, sliced	½ cup
Gelatin Dessert, sugar-free Unflavored	
Gum, sugar-free	
Jam or jelly, light or no sugar added	2 tsp
Rhubarb, sweetened with sugar substitute	½ cup
Salad greens (such as arugula, chicory, endive, escarole, leaf or iceberg lettuce, purslane, romaine, radicchio, spinach, watercress)	2 tsp
Sugar substitutes (artificial sweeteners)	
Syrup, sugar-free	2 Tbsp
Vegetables: any raw, non-starchy vegetables (such as broccoli, cabbage, carrots, cucumber, tomato)	½ cup
Vegetables: any cooked non-starchy vegetables (such as carrots, cauliflower, green beans)	¼ cup

Reduced Fat- or Fat-Free Foods

Food	Serving Size
Cream cheese, fat-free	1 Tbsp (1/2 oz)
Creamers Liquid, flavored Liquid, sugar-free, flavored Powdered, flavored Powdered, sugar-free, flavored	 1 ½ tsp 4 tsp 1 tsp 2 tsp
Margarine spread Fat-free Reduced-fat	 1 Tbsp 1 tsp
Mayonnaise Fat-free Reduced-fat	 1 Tbsp 1 tsp
Mayonnaise-style salad dressing Fat-free Reduced-fat	 1 Tbsp 2 tsp
Salad dressing Fat-free Fat-free, Italian	 1 Tbsp 2 Tbsp
Sour cream, fat-free or reduced-fat	1 Tbsp
Whipped topping Light or fat-free Regular	 2 Tbsp 1 Tbsp

Condiments

Food	Serving Size
Barbecue sauce	2 tsp
Catsup (ketchup)	1 Tbsp
Chili sauce, sweet, tomato-type	2 tsp
Horseradish	
Hot pepper sauce	
Lemon juice	
Miso	1 ½ tsp
Honey Mustard	1 Tbsp
Mustard (brown, Dijon, horseradish, yellow)	
Parmesan cheese, freshly grated	1 Tbsp
Pickle relish (dill or sweet)	1 Tbsp
Pickles	
Dill	1½ medium
Sweet, bread and butter	2 slices
Sweet, gherkin	¾ oz
Soy sauce, light or regular	1 Tbsp
Salsa	¼ cup
Sweet and sour sauce	2 tsp
Sweet chili sauce	2 tsp
Taco sauce	1 Tbsp
Vinegar	
Yogurt, any type	2 Tbsp

Drinks/Mixes

- Bouillon, broth, consommé
- Bouillon or broth, low-sodium
- Carbonated or mineral water
- Club soda
- Cocoa powder, unsweetened (1 Tbsp)
- Coffee, unsweetened or with sugar substitute
- Diet soft drinks, sugar-free
- Drink mixes, sugar-free
- Tea, unsweetened or with sugar substitute
- Tonic Water, diet
- Water
- Water, flavored, carbohydrate free

Seasonings

- Flavoring extracts (for example, vanilla, almond, peppermint)
- Garlic
- Herbs, fresh or dried
- Nonstick cooking spray
- Pimento
- Spices
- Hot pepper sauce
- Wine, used in cooking
- Worcestershire sauce

Combination Foods List

Combination foods do not fit into any one exchange list. This is a list of exchanges for some typical combination foods.

IMPAC exchanges for these menu items may vary based on nutritional analysis.

Entrees

Food	Serving Size	Count as
Casserole type (tuna noodle, lasagna, spaghetti with meatballs, chili with beans, macaroni and cheese)	1 cup (8 oz)	2 carbohydrates + 2 medium-fat proteins
Stews (beef/other meats and vegetables)	1 cup (8 oz)	1 carbohydrate + 1 medium-fat protein + 0-3 fats

Frozen Meals/Entrees

Food	Serving Size	Count as
Burrito (beef and bean)	1 (5 oz)	3 carbohydrates + 1 lean protein + 2 fats
Dinner-type meal (includes dessert and is usually < 400 calories per meal	About 9-12 oz	2-3 carbohydrates + 1 -2 lean proteins + 1 fat
"Healthy" –type entrée (usually < 300 calories)	About 7-10 oz	2 carbohydrates + 2 lean proteins
Pizza		
Cheese/vegetarian, thin crust	¼ of a 12 inch (4 ½ -5 oz)	2 carbohydrates + 2 medium-fat proteins
Meat topping, thin crust	¼ of a 12 inch (5 oz)	2 carbohydrates + 2 medium-fat proteins + 1 ½ fats
Cheese/vegetarian, or meat topping, rising crust	1/6 of a 12 inch pizza (4 oz)	2 ½ carbohydrates + 2 medium-fat proteins
Pocket sandwich	1 (4 ½ oz)	3 carbohydrates + 1 lean protein + 1-2 fats
Pot pie	1 (7 oz)	3 carbohydrates + 1 medium- fat protein + 3 fats

Salads (Deli-Style)

Food	Serving Size	Count as
Coleslaw	½ cup	1 carbohydrate + 1 ½ fats
Macaroni/Pasta Salad	½ cup	2 carbohydrates + 3 fats
Potato Salad	½ cup	1 ½ - 2 carbohydrates + 1-2 fats
Tuna or chicken salad	½ cup (3 oz)	½ carbohydrate + 2 lean proteins + 1 fat

Soups

Food	Serving Size	Count as
Bean, lentil, or split pea	1 cup (8 oz)	1½ carbohydrate + 1 lean protein
Chowder (made with milk)	1 cup (8 oz)	1 carbohydrate + 1 lean protein + 1½ fat
Cream soup (made with water)	1 cup (8 oz)	1 carbohydrate + 1 fat
Miso soup	1 cup (8 oz)	½ carbohydrate + 1 lean protein
Ramen noodle soup	1 cup (8 oz)	2 carbohydrates + 2 fats
Rice soup/porridge (congee)	1 cup (8 oz)	1 carbohydrate
Tomato soup (made with water), borscht	1 cup (8 oz)	1 carbohydrate
Vegetable beef, chicken noodle, or other broth-type soups (such as those lower in sodium and/or fat)	1 cup (8 oz)	1 carbohydrate + 1 lean protein

Finger Food Diet

The **Finger Food Diet** includes those menu items that can be eaten with minimal use of feeding utensils. This diet may be utilized to promote food intake in residents with Alzheimer's disease and/or arthritis and allows them to maintain an active role in daily meal consumption. Quality of life is enhanced as residents participate in food consumption to maintain or improve their nutritional status.

- Regular entrees may be made into sandwiches by slicing or grinding meat portions and placing between two slices of bread. May also serve cut-up versions of regular entrees if appropriate. Scrambled eggs may also be served.

- Soups and hot cereals can be served in mugs. Add a small amount of milk to the hot cereal to thin so that the cereal is drinkable.

- Gravies and sauces can be served on the side for dipping.

- Fresh fruits are allowed if the resident is able to tolerate the texture. Canned fruits should be well drained.

- Whole foods may be cut-up and served as strips, wedges, or chunks.

- Utensils may be provided with each meal to encourage use.

- Regular assessment of the resident's ability to self-feed is recommended.

Vegetarian Diet

A Vegetarian Diet* is a plant-based diet that may or may not exclude some or all foods that come from animals. A vegetarian diet plan excludes all meat, fish, and fowl. Ingredients that come from animals are also avoided by vegetarians, such as beef/chicken broth, ham/bacon flavoring, etc.

Common classifications of vegetarian diets:

Type	**Restricted Foods**
Lacto-ovo vegetarian	seafood, fish, poultry, meat
Lacto-vegetarian	seafood, fish, poultry, meat and eggs
Ovo-vegetarian	seafood, fish, poultry, meat, milk and milk products
Vegan	seafood, fish, poultry, meat, milk and milk products, eggs, and honey

The IMPAC Menu Program includes a Vegetarian diet that follows the lacto-ovo vegetarian type. This allows milk, milk products, cheese, and eggs. It follows the 1-2-2 protein pattern: 1 ounce of protein at breakfast, 2 ounces of protein at both lunch and dinner.

Depending on food intake, additional multivitamin/mineral supplementation may be necessary as with non-vegetarian diets.

Large and Small Portions

Large and small portions may be ordered by the physician to improve meal intake. Portions can be easily incorporated by adjusting portion sizes as noted below.

Large Portions

-Entrée Use High Protein portion unit (provides 1 additional ounce of edible protein)
-Starch 2 portions
-Cereal 1 portion
-Vegetable 1 portion
-Bread 2 portions
-Dessert 1 portion
-Fruit 1 portion
-Beverage 1 portion

Small Portions* (no small portion entrees at breakfast)

-Entrée For 2oz EP recipes, use default portion unit
For 3oz EP recipes, use 2oz edible protein portion unit
-Starch ½ portion
-Cereal 1 portion
-Vegetable 1 portion
-Bread ½ portion
-Dessert 1 portion
-Fruit 1 portion
-Beverage 1 portion

***** Depending on a resident's individualized protein and caloric needs, a calorie/protein and/or multivitamin/mineral supplement may be warranted with small portions as determined by appropriate facility personnel.

Cardiac Diet

The Cardiac diet is intended for use in the prevention and treatment of cardiovascular disease including hypertension, myocardial infarction, hyperlipidemia, dyslipidemia and coronary heart failure**.** The following guidelines are used for planning the IMPAC Cardiac diet and are based the Cardiac Therapeutic Lifestyle Changes Nutrition Therapy and Stroke Nutrition Therapy recommendations from the Academy of Nutrition and Dietetics Nutrition Care Manual.

- ⌘ Limit cholesterol intake to 200 mg or less per day
- ⌘ Limit sodium intake to 2000 mg or less per day
  IMPAC Goal: 2000 mg ± 200 mg per day
- ⌘ 20-30 grams fiber per day
- ⌘ 25-35% total calories from fat
  IMPAC Goal: ≤60 g or less per day (approximately 30% of total calories)

The following pages provide a list of recommended foods in order to maintain a cardiac diet. These charts are intended as references and do not mandate diet planning.

Cardiac Diet

High Cholesterol Nutrition Therapy

	Recommended Foods	Foods Not Recommended
Grains	Whole grain breads and cereals, including oats and barley Pasta, especially whole wheat or other whole grain types Brown rice Low-fat crackers and pretzels	High-fat bakery products, such as doughnuts, biscuits, croissants, Danish pastries, pies, cookies Snacks made with partially hydrogenated oils, including chips, cheese puffs, snack mixes, regular crackers, buttered-flavored popcorn
Vegetables	Fresh, frozen or canned vegetables without added fat or salt	Fried vegetables Vegetables prepared with butter, cheese, or cream sauce
Fruit	Fresh, frozen, canned or dried fruit	Fried fruits Fruits served with butter or cream
Milk	Nonfat (skim), low-fat or 1%-fat milk or buttermilk Nonfat or low-fat yogurt or cottage cheese Fat-free and low-fat cheese	Whole milk Reduced-fat (2%) milk Whole milk yogurt or ice cream Cream Half & half Cream cheese Sour cream Cheese
Dairy (Milk and Milk Products)	-Lean cuts of beef and pork (loin, leg, round, extra lean hamburger) -Skinless poultry -Fish, -Venison and other wild game -Dried beans, peas, nuts and nut butters -Meat alternatives made with soy or textured vegetable protein -Egg whites or egg substitute -Cold cuts made with lean meat or soy protein	Higher-fat cuts of meats (ribs, T-bone steak, regular hamburger) -Bacon -Sausage -Cold cuts, such as salami or bologna -Corned Beef -Hot dogs -Organ Meats (liver, brains, sweetbreads) -Poultry with skin -Fried meat, poultry, and fish -Whole eggs and egg yolks
Fats and Oils	Unsaturated oils (olive, peanut, soy, sunflower, canola) Soft or liquid margarines and vegetable oil spreads Salad dressings Seeds and nuts Avocado	Butter Stick Margarine Shortening Partially hydrogenated oils Tropical oils (coconut, palm, palm kernel oils)

Cardiac Diet, continued

Stroke Nutrition Therapy

Food Group	Recommended Foods	Foods Not Recommended
Grains	Breads and cereals, especially those made with whole grains such as oats, barley, rye, or whole wheat Pasta, especially whole grain pastas Brown rice Low-fat, low-sodium crackers and pretzels	Baked goods made with hydrogenated oil or saturated fat Grain foods that are high in sodium or added sugar
Vegetables	Fresh, frozen, or canned vegetables without added fat or salt Highly colored vegetables, such as broccoli, greens, sweet potatoes, and tomatoes are especially good for you.	Canned vegetables (unless they are low-sodium or salt-free) Pickles, other vegetables packed in brine, such as sauerkraut Fried or breaded vegetables Vegetables in cream or butter sauces
Fruits	Fresh, frozen, canned, or dried fruit	Fried fruits; fruit dishes with cream or butter
Milk	Nonfat (skim), low-fat, or 1% fat milk Buttermilk Nonfat or low-fat yogurt Nonfat, low-sodium cottage cheese Fat-free and low-fat, low-sodium cheese	Cheese (except for low-fat, low-sodium types) Processed cheese products Whole milk Dairy foods made from whole milk or cream (such as ice cream or half & half)

Meat and Other Protein Foods	-Fish (especially fatty fish, such as salmon, fresh tuna, or mackerel) -Lean cuts of beef and pork (loin, leg, round, extra lean hamburger) -Low-sodium cold cuts made with lean meat or soy protein -Skinless poultry -Venison and other wild game -Unsalted nuts and nut butters -Dried beans and peas -Meat alternatives made with soy or textured vegetable protein -Egg whites or egg substitute	Canned or smoked meat or fish Marbled or fatty meats (such as bacon, sausage, hot dogs, regular hamburger) Whole eggs and egg yolks Poultry with skin High-sodium snack foods (chips, pretzels, salted nuts) High-fat, high sugar desserts High fat gravies and sauces Premade foods (boxed pasta mixes, frozen dinners, and so on) if high in sodium or fat
Fats and Oils	-Unsaturated oils (soybean, olive, canola, sunflower, safflower) -Soft or liquid margarines and vegetable oil spreads -Salad dressings (nonfat or made with unsaturated oil) -Seeds -Avocado	Solid cooking fats (shortening, butter, stick margarine) Tropical oils (palm, palm kernel, or coconut oil) Hydrogenated oil (found in many packaged and fried foods)
Other	Herbs and spices to add flavor to replace salt Unsalted, low-fat snack foods, such as unsalted pretzels or plain popcorn	-Salt, seasoning mixes made with salt -Soy sauce, miso -Canned or dried soup (except low-fat, low-sodium types) -Bouillon cubes -Catsup, barbeque sauce, Worcestershire sauce, salsa -Sugar drinks (such as soda or fruit drinks Snack foods made with hydrogenated oil, shortening, or butter -High sodium snack foods (chips, pretzels, salted nuts) -High-fat, high-sugar desserts -High fat gravies and sauces -Premade foods (boxed pasta mixes, frozen dinners, and so on) if high in sodium or fat
Alcohol		Women: Do not have more than 1 drink per day. Men: Do not have more than 2 drinks per day. (1 drink = 5 oz wine, 12 oz beer, or 1½ oz liquor.

Soft Diet

The Soft Diet is a texture modified diet designed for individuals who have difficulty swallowing. This diet includes foods which are soft and easy to chew. The diet excludes very hard, sticky, or crunchy foods. Foods should be served moist. Bite-size pieces are easier to swallow.

Considerations for specific food items:

- **Cookies –** need to be soft and moist. The recipes include a cookie softened with milk. A soft moist convenience cookie is also appropriate.
- **Corn** – restricted. For IMPAC menus, a commercially prepared pureed corn is menued.
- **Meats, Fish, Poultry** – served ground, moist and with gravy or sauce. Casseroles are ground and do not require gravy as they typically have liquids incorporated into the recipe and are moist.
- **Potatoes** - soft versions of hash browns, French fries, tater tots, and potato wedges.
- **Pineapple** – restricted from diet.
- **Breads** – soft versions of toast, biscuits and English muffins.
- **Nuts, Raisins and other dried fruits –** restricted from diet.
- **Raw Fruits and Vegetables** – restricted with the exception of banana and shredded lettuce.
- **Liquids** - Liquid consistencies are not considered for the IMPAC Menu.

Meals need to be modified to suit individual resident tolerance as determined by appropriate personnel at the facility level. The resident's acceptance and tolerance of the diet determines the extent of texture modification. Individual preferences need to be considered when planning the resident meal.

Soft Diet

Soft Foods Nutrition Therapy

Food Groups	Recommended	Avoid
Grains	Soft breads including lightly toasted bread, soft English muffins, rolls and biscuits. Well-soaked dry cereals and cooked cereals. All pasta and rice.	Breads, rolls, and muffins that have a hard crust or contain nuts, seeds or dried fruit
Vegetables	All cooked, tender vegetables. Soft or tender fried potatoes, including soft French fries, hash browns and baked potato wedges. Shredded lettuce.	All raw vegetables except shredded lettuce; corn which is not commercially-pureed; tough, crisp-fried potatoes, potato skins, or other fibrous, tough, or stringy cooked vegetables.
Desserts	Plain, soft cookies, cakes, pies and bars without nuts, seeds, coconut, pineapple or dried fruit Puddings, plain ice cream, sherbet, gelatin.	Dry cakes, cookies which are chewy or very dry. Nuts, seeds, dried fruit, coconut, or pineapple.

SOFT DIET
(continued)

Food Groups	Recommended Food	Avoid
Fruits	Most canned and cooked fruits; soft, peeled fresh fruits such as peaches, nectarines, kiwi, mangoes, cantaloupe, honeydew, watermelon (without seeds); soft berries with small seeds such as strawberries	Avoid fresh fruit with exception of banana. Avoid pineapple.
Milk and Milk Products	Milk, cream, half and half, pudding, custard, ice cream, sherbet, malts, frozen yogurt; and cottage cheese	None, unless liquids are restricted.
Meat and Other Protein Foods	Well-moistened ground meat served with gravy or sauce; All eggs. Yogurt without nuts, coconut or dried fruit; casseroles with small chunks of meat, ground or tender meats	Anything with nuts, seeds, dry fruits, coconut, pineapple, tough dry meats; bacon that has not been commercially pureed, dry meat or meat with bones; chunky peanut butter; yogurt with nuts or coconut
Fats and Oils	All except those on the foods not recommended list.	All fats with coarse, difficult to chew or chunky additives such as cream cheese spreads with nuts or pineapple.

Gluten-Free Diet

The Gluten-Free diet is designed for individuals with Celiac's disease or other gluten sensitivities. Recipes planned on the IMPAC Gluten-Free diet include items that are either inherently gluten-free, consist of non-gluten containing ingredients, or are specifically marketed as gluten-free.

Please note: Meals need to be modified to suit individual resident tolerance as determined by appropriate personnel at the facility level.

Considerations for specific food items:

Recommended Foods	Foods Not Recommended
• Amaranth • Arrowroot • Buckwheat • Cassava (manioc) • Corn • Flax • Indian rice grass (Montina) • Job's tears • Legumes (dry beans, peas, lentils) • Millet • Finger millet (Ragi) • Nuts • Potatoes • Quinoa • Rice • Sago • Seeds • Sorghum • Soy • Tapioca • Tef (or teff) • Wild rice • Yucca	• Wheat (all types, including einkorn, emmer, spelt, and kamut) • Barley • Rye • Malt • Oats (unless they are gluten-free)

The Academy of Nutrition and Dietetic Nutrition Care Manual, nutritioncaremanual.org, 2016

American Diabetes Association: Evidence-Based Nutrition Principals and Recommendations for the Treatment and Prevention of Diabetes and Related Complications. *Diabetes Care* 25: 202-212, 2002.

The Academy of Nutrition and Dietetics. "*Choose Your Foods: Foods Lists for Diabetes*" 2014.

The American Dietetic Association. "National Renal Diet Professional Guide, Second Edition" 2003

The American Dietetic Association Position Paper, *Individualized Nutrition Approaches for Older Adults in Healthcare Communities– Position of ADA.*

Trumbo, P, Schlicker, S, Yates, A, Poos, M. Dietary Reference Intakes for Energy, Carbohydrate, Fiber, Fat, Fatty Acids, Cholesterol, Protein and Amino Acids. J Am Diet Assoc. 2002;102:1621-1630.

Dietary Reference Intakes (DRIs): Recommended Dietary Allowances and Adequate Intakes, Vitamins

Food and Nutrition Board, Institute of Medicine, National Academies

Life Stage Group	Vitamin A (µg/d)[a]	Vitamin C (mg/d)	Vitamin D (µg/d)[b,c]	Vitamin E (mg/d)[d]	Vitamin K (µg/d)	Thiamin (mg/d)	Riboflavin (mg/d)	Niacin (mg/d)[e]	Vitamin B_6 (mg/d)	Folate (µg/d)[f]	Vitamin B_{12} (µg/d)	Pantothenic Acid (mg/d)	Biotin (µg/d)	Choline (mg/d)[g]
Infants														
0 to 6 mo	400*	40*	10	4*	2.0*	0.2*	0.3*	2*	0.1*	65*	0.4*	1.7*	5*	125*
6 to 12 mo	500*	50*	10	5*	2.5*	0.3*	0.4*	4*	0.3*	80*	0.5*	1.8*	6*	150*
Children														
1–3 y	**300**	**15**	**15**	**6**	30*	**0.5**	**0.5**	**6**	**0.5**	**150**	**0.9**	2*	8*	200*
4–8 y	**400**	**25**	**15**	**7**	55*	**0.6**	**0.6**	**8**	**0.6**	**200**	**1.2**	3*	12*	250*
Males														
9–13 y	**600**	**45**	**15**	**11**	60*	**0.9**	**0.9**	**12**	**1.0**	**300**	**1.8**	4*	20*	375*
14–18 y	**900**	**75**	**15**	**15**	75*	**1.2**	**1.3**	**16**	**1.3**	**400**	**2.4**	5*	25*	550*
19–30 y	**900**	**90**	**15**	**15**	120*	**1.2**	**1.3**	**16**	**1.3**	**400**	**2.4**	5*	30*	550*
31–50 y	**900**	**90**	**15**	**15**	120*	**1.2**	**1.3**	**16**	**1.3**	**400**	**2.4**	5*	30*	550*
51–70 y	**900**	**90**	**15**	**15**	120*	**1.2**	**1.3**	**16**	**1.7**	**400**	**2.4**[h]	5*	30*	550*
> 70 y	**900**	**90**	**20**	**15**	120*	**1.2**	**1.3**	**16**	**1.7**	**400**	**2.4**[h]	5*	30*	550*
Females														
9–13 y	**600**	**45**	**15**	**11**	60*	**0.9**	**0.9**	**12**	**1.0**	**300**	**1.8**	4*	20*	375*
14–18 y	**700**	**65**	**15**	**15**	75*	**1.0**	**1.0**	**14**	**1.2**	**400**[i]	**2.4**	5*	25*	400*
19–30 y	**700**	**75**	**15**	**15**	90*	**1.1**	**1.1**	**14**	**1.3**	**400**[i]	**2.4**	5*	30*	425*
31–50 y	**700**	**75**	**15**	**15**	90*	**1.1**	**1.1**	**14**	**1.3**	**400**[i]	**2.4**	5*	30*	425*
51–70 y	**700**	**75**	**15**	**15**	90*	**1.1**	**1.1**	**14**	**1.5**	**400**	**2.4**[h]	5*	30*	425*
> 70 y	**700**	**75**	**20**	**15**	90*	**1.1**	**1.1**	**14**	**1.5**	**400**	**2.4**[h]	5*	30*	425*
Pregnancy														
14–18 y	**750**	**80**	**15**	**15**	75*	**1.4**	**1.4**	**18**	**1.9**	**600**[j]	**2.6**	6*	30*	450*
19–30 y	**770**	**85**	**15**	**15**	90*	**1.4**	**1.4**	**18**	**1.9**	**600**[j]	**2.6**	6*	30*	450*
31–50 y	**770**	**85**	**15**	**15**	90*	**1.4**	**1.4**	**18**	**1.9**	**600**[j]	**2.6**	6*	30*	450*
Lactation														
14–18 y	**1,200**	**115**	**15**	**19**	75*	**1.4**	**1.6**	**17**	**2.0**	**500**	**2.8**	7*	35*	550*
19–30 y	**1,300**	**120**	**15**	**19**	90*	**1.4**	**1.6**	**17**	**2.0**	**500**	**2.8**	7*	35*	550*
31–50 y	**1,300**	**120**	**15**	**19**	90*	**1.4**	**1.6**	**17**	**2.0**	**500**	**2.8**	7*	35*	550*

NOTE: This table (taken from the DRI reports, see www.nap.edu) presents Recommended Dietary Allowances (RDAs) in **bold type** and Adequate Intakes (AIs) in ordinary type followed by an asterisk (*). An RDA is the average daily dietary intake level; sufficient to meet the nutrient requirements of nearly all (97-98 percent) healthy individuals in a group. It is calculated from an Estimated Average Requirement (EAR). If sufficient scientific evidence is not available to establish an EAR, and thus calculate an RDA, an AI is usually developed. For healthy breastfed infants, an AI is the mean intake. The AI for other life stage and gender groups is believed to cover the needs of all healthy individuals in the groups, but lack of data or uncertainty in the data prevent being able to specify with confidence the percentage of individuals covered by this intake.

[a] As retinol activity equivalents (RAEs). 1 RAE = 1 µg retinol, 12 µg β-carotene, 24 µg α-carotene, or 24 µg β-cryptoxanthin. The RAE for dietary provitamin A carotenoids is two-fold greater than retinol equivalents (RE), whereas the RAE for preformed vitamin A is the same as RE.

[b] As cholecalciferol. 1 µg cholecalciferol = 40 IU vitamin D.

[c] Under the assumption of minimal sunlight.

[d] As α-tocopherol. α-Tocopherol includes *RRR*-α-tocopherol, the only form of α-tocopherol that occurs naturally in foods, and the *2R*-stereoisomeric forms of α-tocopherol (*RRR*-, *RSR*-, *RRS*-, and *RSS*-α-tocopherol) that occur in fortified foods and supplements. It does not include the *2S*-stereoisomeric forms of α-tocopherol (*SRR*-, *SSR*-, *SRS*-, and *SSS*-α-tocopherol), also found in fortified foods and supplements.

[e] As niacin equivalents (NE). 1 mg of niacin = 60 mg of tryptophan; 0–6 months = preformed niacin (not NE).

[f] As dietary folate equivalents (DFE). 1 DFE = 1 µg food folate = 0.6 µg of folic acid from fortified food or as a supplement consumed with food = 0.5 µg of a supplement taken on an empty stomach.

[g] Although AIs have been set for choline, there are few data to assess whether a dietary supply of choline is needed at all stages of the life cycle, and it may be that the choline requirement can be met by endogenous synthesis at some of these stages.

[h] Because 10 to 30 percent of older people may malabsorb food-bound B_{12}, it is advisable for those older than 50 years to meet their RDA mainly by consuming foods fortified with B_{12} or a supplement containing B_{12}.

[i] In view of evidence linking folate intake with neural tube defects in the fetus, it is recommended that all women capable of becoming pregnant consume 400 µg from supplements or fortified foods in addition to intake of food folate from a varied diet.

[j] It is assumed that women will continue consuming 400 µg from supplements or fortified food until their pregnancy is confirmed and they enter prenatal care, which ordinarily occurs after the end of the periconceptional period—the critical time for formation of the neural tube.

SOURCES: *Dietary Reference Intakes for Calcium, Phosphorous, Magnesium, Vitamin D, and Fluoride* (1997); *Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B_6, Folate, Vitamin B_{12}, Pantothenic Acid, Biotin, and Choline* (1998); *Dietary Reference Intakes for Vitamin C, Vitamin E, Selenium, and Carotenoids* (2000); *Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc* (2001); *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and* Sulfate (2005); and *Dietary Reference Intakes for Calcium and Vitamin D* (2011). These reports may be accessed via www.nap.edu

Dietary Reference Intakes (DRIs): Recommended Dietary Allowances and Adequate Intakes, Elements

Food and Nutrition Board, Institute of Medicine, National Academies

Life Stage Group	Calcium (mg/d)	Chromium (µg/d)	Copper (µg/d)	Fluoride (mg/d)	Iodine (µg/d)	Iron (mg/d)	Magnesium (mg/d)	Manganese (mg/d)	Molybdenum (µg/d)	Phosphorus (mg/d)	Selenium (µg/d)	Zinc (mg/d)	Potass-ium (g/d)	Sodium (g/d)	Chloride (g/d)
Infants															
0 to 6 mo	200*	0.2*	200*	0.01*	110*	0.27*	30*	0.003*	2*	100*	15*	2*	0.4*	0.12*	0.18*
6 to 12 mo	260*	5.5*	220*	0.5*	130*	**11**	75*	0.6*	3*	275*	20*	**3**	0.7*	0.37*	0.57*
Children															
1–3 y	**700**	11*	**340**	0.7*	**90**	**7**	**80**	1.2*	**17**	**460**	**20**	**3**	3.0*	1.0*	1.5*
4–8 y	**1,000**	15*	**440**	1*	**90**	**10**	**130**	1.5*	**22**	**500**	**30**	**5**	3.8*	1.2*	1.9*
Males															
9–13 y	**1,300**	25*	**700**	2*	**120**	**8**	**240**	1.9*	**34**	**1,250**	**40**	**8**	4.5*	1.5*	2.3*
14–18 y	**1,300**	35*	**890**	3*	**150**	**11**	**410**	2.2*	**43**	**1,250**	**55**	**11**	4.7*	1.5*	2.3*
19–30 y	**1,000**	35*	**900**	4*	**150**	**8**	**400**	2.3*	**45**	**700**	**55**	**11**	4.7*	1.5*	2.3*
31–50 y	**1,000**	35*	**900**	4*	**150**	**8**	**420**	2.3*	**45**	**700**	**55**	**11**	4.7*	1.5*	2.3*
51–70 y	**1,000**	30*	**900**	4*	**150**	**8**	**420**	2.3*	**45**	**700**	**55**	**11**	4.7*	1.3*	2.0*
> 70 y	**1,200**	30*	**900**	4*	**150**	**8**	**420**	2.3*	**45**	**700**	**55**	**11**	4.7*	1.2*	1.8*
Females															
9–13 y	**1,300**	21*	**700**	2*	**120**	**8**	**240**	1.6*	**34**	**1,250**	**40**	**8**	4.5*	1.5*	2.3*
14–18 y	**1,300**	24*	**890**	3*	**150**	**15**	**360**	1.6*	**43**	**1,250**	**55**	**9**	4.7*	1.5*	2.3*
19–30 y	**1,000**	25*	**900**	3*	**150**	**18**	**310**	1.8*	**45**	**700**	**55**	**8**	4.7*	1.5*	2.3*
31–50 y	**1,000**	25*	**900**	3*	**150**	**18**	**320**	1.8*	**45**	**700**	**55**	**8**	4.7*	1.5*	2.3*
51–70 y	**1,200**	20*	**900**	3*	**150**	**8**	**320**	1.8*	**45**	**700**	**55**	**8**	4.7*	1.3*	2.0*
> 70 y	**1,200**	20*	**900**	3*	**150**	**8**	**320**	1.8*	**45**	**700**	**55**	**8**	4.7*	1.2*	1.8*
Pregnancy															
14–18 y	**1,300**	29*	**1,000**	3*	**220**	**27**	**400**	2.0*	**50**	**1,250**	**60**	**12**	4.7*	1.5*	2.3*
19–30 y	**1,000**	30*	**1,000**	3*	**220**	**27**	**350**	2.0*	**50**	**700**	**60**	**11**	4.7*	1.5*	2.3*
31–50 y	**1,000**	30*	**1,000**	3*	**220**	**27**	**360**	2.0*	**50**	**700**	**60**	**11**	4.7*	1.5*	2.3*
Lactation															
14–18 y	**1,300**	44*	**1,300**	3*	**290**	**10**	**360**	2.6*	**50**	**1,250**	**70**	**13**	5.1*	1.5*	2.3*
19–30 y	**1,000**	45*	**1,300**	3*	**290**	**9**	**310**	2.6*	**50**	**700**	**70**	**12**	5.1*	1.5*	2.3*
31–50 y	**1,000**	45*	**1,300**	3*	**290**	**9**	**320**	2.6*	**50**	**700**	**70**	**12**	5.1*	1.5*	2.3*

NOTE: This table (taken from the DRI reports, see www.nap.edu) presents Recommended Dietary Allowances (RDAs) in **bold type** and Adequate Intakes (AIs) in ordinary type followed by an asterisk (*). An RDA is the average daily dietary intake level; sufficient to meet the nutrient requirements of nearly all (97-98 percent) healthy individuals in a group. It is calculated from an Estimated Average Requirement (EAR). If sufficient scientific evidence is not available to establish an EAR, and thus calculate an RDA, an AI is usually developed. For healthy breastfed infants, an AI is the mean intake. The AI for other life stage and gender groups is believed to cover the needs of all healthy individuals in the groups, but lack of data or uncertainty in the data prevent being able to specify with confidence the percentage of individuals covered by this intake.

SOURCES: *Dietary Reference Intakes for Calcium, Phosphorous, Magnesium, Vitamin D, and Fluoride* (1997); *Dietary Reference Intakes for Thiamin, Riboflavin, Niacin, Vitamin B_6, Folate, Vitamin B_{12}, Pantothenic Acid, Biotin, and Choline* (1998); *Dietary Reference Intakes for Vitamin C, Vitamin E, Selenium, and Carotenoids* (2000); and *Dietary Reference Intakes for Vitamin A, Vitamin K, Arsenic, Boron, Chromium, Copper, Iodine, Iron, Manganese, Molybdenum, Nickel, Silicon, Vanadium, and Zinc* (2001); *Dietary Reference Intakes for Water, Potassium, Sodium, Chloride, and* Sulfate (2005); and *Dietary Reference Intakes for Calcium and Vitamin D* (2011). These reports may be accessed via www.nap.edu.

Position of the American Dietetic Association: Individualized Nutrition Approaches for Older Adults in Health Care Communities

ABSTRACT

It is the position of the American Dietetic Association that the quality of life and nutritional status of older adults residing in health care communities can be enhanced by individualization to less-restrictive diets. The American Dietetic Association advocates for registered dietitians to assess and evaluate the need for nutrition interventions tailored to each person's medical condition, needs, desires, and rights. Dietetic technicians, registered, assist registered dietitians in the assessment and implementation of individualized nutrition care. Health care practitioners must assess risks vs benefits of therapeutic diets, especially for older adults. Food is an essential component of quality of life; an unpalatable or unacceptable diet can lead to poor food and fluid intake, resulting in undernutrition and related negative health effects. Including older individuals in decisions about food can increase the desire to eat and improve quality of life. The Practice Paper of the American Dietetic Association: Individualized Nutrition Approaches for Older Adults in Health Care Communities provides guidance to practitioners on implementation of individualized diets and nutrition care.

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POSITION STATEMENT

It is the position of the American Dietetic Association that the quality of life and nutritional status of older adults residing in health care communities can be enhanced by individualization to less-restrictive diets. The American Dietetic Association advocates for registered dietitians to assess and evaluate the need for nutrition interventions tailored to each person's medical condition, needs, desires, and rights. Dietetic technicians, registered, assist registered dietitians in the assessment and implementation of individualized nutrition care.

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HEALTH CARE COMMUNITIES

Health care communities are living environments for persons with chronic conditions, functional limitations, or need for supervision or assistance. Health care communities include assisted living facilities, group homes, short-term rehabilitation facilities, skilled nursing facilities, and hospice facilities. Health care communities differ from acute care facilities in that long-term treatment and lifestyle goals take precedence over short-term clinical goals.

Care for individuals who reside in health care communities must meet two goals: maintain health and preserve quality of life. These goals can compete when it comes to delivery of nutrition care. Food must meet nutrition needs but also enhance quality of life.

Trends in Health Care Communities

America is aging rapidly. By 2030, predictions indicate that the older-than-age-65-years population will increase to approximately 72.1 million, or 19.3% of the population (1). This equates to a remarkable 52% increase since 2007. The number of people aged 85 years or older is projected to increase from 5.5 million in 2007 to 6.6 million in 2020, a 20% increase in the oldest old (2). These increases in the older population will have dramatic effects on the nation's health care system in years to come.

In 2008, approximately 1.6 million (4.1%) of Americans aged 65 years and older lived in institutional settings. This percentage increases with age, ranging from 1.3% for those aged 65 to 74 years, 3.8% for those aged 75 to 84 years, and 15.4% of those older than 85 years of age (1). Residents of nursing facilities are often frail older adults. In 2004, approximately 15% of nursing home residents were dependent on others for eating, and up to 39% were dependent on others for activities of daily living such as bathing and toileting (3). Older adults residing in any health care community are more likely to need assistance with activities of daily living and have cognitive impairment due to Alzheimer's disease or other dementias (1). As a result they are likely to experience physical and social problems that exacerbate poor health and alter food intake.

Health care communities have embraced new philosophies that reflect major paradigm shifts in culture from institutional care to more personalized living in a home-like environment. Improving quality of life and quality of care, allowing choices in daily living, and assisting individuals to make informed health care decisions are all major goals of culture change and person-centered care. Involving individuals in choices about food and dining such as food selections, dining locations, and meal times can help them maintain a sense of dignity, control, and autonomy.

Factors Affecting Nutritional Status

Physiological changes of aging can affect food intake, body composition, and weight. Food intake typically declines even in healthy older adults. This is often referred to as the "anorexia of aging" (4). Decreased appetite can be due to a decrease in olfac-

tion, taste, and changes in levels of hormones that control satiety and food intake. As appetite diminishes, intake of energy and other nutrients decreases, which can result in weight loss and predispose an individual to increased risk of illness and infection. In addition, chronic disease, including cerebrovascular accidents, Parkinson's disease, cancer, diabetes, and dementia, can contribute to changes in appetite, metabolism, and weight. Older adults can be subject to sarcopenia, a loss of muscle mass associated with aging, and/or cachexia, a loss of weight and muscle mass associated with underlying illness.

Depression, polypharmacy, drug–nutrient interactions, or side effects such as anorexia, nausea, vomiting; sensory loss that affects ability to see, smell, and taste food; and oral or dental changes that affect chewing or swallowing ability can all affect nutritional status.

As a result of the physiological and psychological changes associated with aging, food can be less appealing, and food consumption may decline as a result. Restrictive diets may exacerbate poor food intake leading to unintended weight loss and undernutrition.

The Risk for Undernutrition in Health Care Communities

Due to variations in definitions between undernutrition and malnutrition, determining the scope of the problem in health care communities is difficult. According to a recent literature review that used the mini-nutrition assessment as a parameter, malnutrition was observed in 2% to 38% of institutionalized older adults, and 37% to 62% were considered at risk (5). Consequences of undernutrition include increased mortality, loss of strength, depression, lethargy, immune dysfunction, pressure ulcers, delayed recovery from illness, increased chance of hospital admission, and poor wound healing (6). Older adults are at higher risk for pressure ulcer development due to age, skin frailty, unintended weight loss, and other factors. Although pressure ulcers have multiple causes, poor nutritional status is a contributing factor and is an important aspect of prevention (7). Since unintended weight loss can reflect poor intake or changes in metabolism of food and nutrients, it may be the best indicator of undernutrition (4).

RISKS VS BENEFITS OF LEAST-RESTRICTIVE DIETS

A priority of nutrition care for most frail older adults in health care communities is to consume enough food to prevent unintended weight loss and undernutrition. Although therapeutic diets are designed to improve health, they can negatively affect the variety and flavor of the food offered. Individuals may find restrictive diets unpalatable, resulting in reducing the pleasure of eating, decreased food intake, unintended weight loss, and undernutrition—the very maladies health care practitioners are trying to prevent. In contrast, more liberal diets are associated with increased food and beverage intake (8). For many older adults residing in health care communities, the benefits of less-restrictive diets outweigh the risks. When considering a therapeutic diet prescription, a health care practitioner should ask: Is a restrictive therapeutic diet necessary? Will it offer enough benefits to justify its use?

DISEASE-SPECIFIC CONDITIONS AND RESTRICTED DIETS

Diabetes Mellitus

The risk of developing diabetes increases with age. By one 2002 estimate, 26.4% of all persons admitted to nursing homes had a diagnosis of type 2 diabetes (9). Although there are numerous evidence-based guidelines for treating diabetes, few of the data supporting interventions were obtained from research studies in older persons (10).

Blood glucose can be affected by factors other than diet, including infections, obesity, diseases of the pancreas, endocrine disease, genetic defects of beta cells or insulin action, and common medications (9). Since 2000, the American Diabetes Association has held the position that sucrose-containing foods can be substituted for other carbohydrates in the meal plan or covered with insulin-lowering medications (11). There is no evidence to support prescribing diets such as no concentrated sweets or no sugar added for older adults living in health care communities, and these restricted diets are no longer considered appropriate (11). Most experts agree that using medication rather than dietary changes to control blood glucose, blood lipid levels, and blood pressure can enhance the joy of eating and reduce the risk of malnutrition for older adults in health care communities (11).

According to the American Diabetes Association position statement on nutrition recommendations and interventions for diabetes, elderly nursing home residents with diabetes can receive a regular diet that is consistent in the amount and timing of carbohydrates, along with proper medication to control blood glucose levels (11). The nutrition care plan should include education about appropriate food choices for managing diabetes.

Cardiovascular Disease

The use of low-fat, low-cholesterol diet prescriptions for older adults in health care communities is controversial. There are little data available to support the effects of lipid-lowering therapy on adults older than 75 years of age (12). However, the American Heart Association suggests that risks related to elevated blood lipid levels do not diminish with age and recommends treatment be considered for all older adults (12). Health care providers should be aware of cardiac problems while balancing an individual's condition, prognosis, and the threat of undernutrition when making treatment decisions.

The relationship between congestive heart failure, blood pressure, and sodium intake in the elderly population has not been well studied. The American Heart Association recommends that older adults attempt to control blood pressure through diet and lifestyle changes (13) and recommends a sodium intake of 2 to 3 g/day for patients with congestive heart failure (14). However, a randomized trial of adults aged 55 to 83 years found that a normal-sodium diet improved congestive heart failure outcomes (15). A liberal approach to sodium in diets may be needed to maintain adequate nutritional status, especially in frail older adults (16).

The Dietary Approaches to Stop Hypertension (DASH) eating pattern is known to reduce blood pressure and may also reduce rates of heart failure

(17). The DASH diet is low in sodium and saturated fat but also high in calcium, magnesium, and potassium.

The nutrition care plan for older adults with cardiac disease should focus on maintaining blood pressure and blood lipid levels while preserving eating pleasure and quality of life. Using menus that work toward the objectives of the Dietary Guidelines for Americans and/or the DASH diet can help achieve those goals. Physical activity that is based on each individual's abilities can also help facilitate cardiac health (14).

Chronic Kidney Disease

Older adults with chronic kidney disease often have increased protein catabolism and uremia (18). Anorexia, nausea, and vomiting are common side effects of uremia (19). Undernutrition is especially difficult to define in this population because changes in body weight can be caused by shifts in fluid balance. Most experts agree that patients receiving dialysis lose protein with each treatment and, therefore, require an increase in dietary protein (20). Individualizing the diet prescription for chronic kidney disease patients receiving dialysis may increase total energy and protein intake and help prevent undernutrition. Patients in earlier stages of chronic kidney disease may need an individualized diet if food intake is poor or weight loss is detected (20).

Obesity and Desired Weight Loss

In 2005-2006, 37% of individuals aged 65 to 74 years and 24% of those aged 75 years and older were classified as obese (3). Evidence suggests that weight loss in obese older adults improves physical functioning and quality of life and reduces medical complications (21). However, some experts suggest that adverse health outcomes of obesity and benefits of weight loss in older adults have not been proven (22). Weight loss in obese older adults results in both a loss of fat mass and lean body mass that could exacerbate sarcopenia (22,23), thus contributing to functional decline (24). If an individual desires weight loss, the care plan should provide adequate energy and protein along with regular physical activity to help preserve lean body mass (21). In most cases, a resident's usual body weight before decline or admission, rather than ideal body weight, is the most relevant basis for weight-related interventions. Caution should be applied in determining which older adults are appropriate for weight loss programs to avoid undernutrition and complications such as pressure ulcers.

Alzheimer's Disease and Dementia

The prevalence of Alzheimer's disease in individuals aged 85 years is between 24% and 33% in developed countries (25). Unintended weight loss is common in people with Alzheimer's disease and is thought to be part of the disease process (26). Meal intake is often poor, usually due to cognitive decline. The goal of nutrition care for older adults with Alzheimer's disease or other forms of dementia is to develop an individualized diet that considers food preferences, utilizes nutrient-dense foods, and offers feeding assistance as needed to achieve the individual's goals.

Palliative Care

Supportive care is the most realistic goal for a dying patient. Decisions about care should be made with the patient and/or family. Accommodating individual food and fluid preferences is essential for acceptance and consumption (27). The nutrition care plan should allow provision of any food and beverage that the individual will safely consume, regardless of medical diagnosis. If texture modifications are recommended, education may be needed on the risks vs benefits of consuming certain foods. More information on this topic is available in the Position of he American Dietetic Association: Ethical and legal issues in nutrition, hydration, and feeding (28).

COMPLIANCE WITH FEDERAL LONG-TERM CARE REGULATIONS

The State Operactions Manual of the Centers for Medicare and Medicaid Services—Appendix PP-Guidance to Surveyors for Long Term Care Facilities—states, "A facility must care for its residents in a manner and in an environment that promotes maintenance or enhancement of each resident's quality of life" (29). Facilities must respect ethnic, cultural, religious, and other food and dining preferences, and protect and promote the rights of each resident (28). Providing a therapeutic diet against a resident's wishes is a violation of resident rights (Note: proper counseling should be provided to ensure the resident understands the risks vs benefits of not following a therapeutic diet.) In an effort to enhance quality of life, respect resident rights, and promote person-centered care, many facilities are enhancing their dining programs to include creative ideas that demonstrate improvements in dining, food intake, and/or quality of life (8).

The State Operations Manual (27) also addresses nutrition and recognizes the potential benefits of liberalized diets. According to the manual, "it is often beneficial to minimize restrictions consistent with a resident's condition, prognosis, and choices." Providing a more liberal diet may help prevent an F-325 citation (nutrition and unintended weight loss) because the intent is to ensure that residents maintain acceptable parameters of nutritional status (28).

THE ROLE OF REGISTERED DIETITIANS (RDs) AND DIETETIC TECHNICIANS, REGISTERED

RDs should utilize the Nutrition Care Process and develop an individualized care plan that is consistent with needs based on nutritional status, medical condition and personal preferences. RDs should assess nutritional status, determine a nutrition diagnosis, plan appropriate nutrition interventions, and monitor and evaluate outcomes. Dietetic technicians, registered, support RDs in the Nutrition Care Process and may complete parts of the process as assigned by an RD (2). Collaboration between the patient, family, and members of the health care team will help achieve these goals. RDs and dietetic technicians, registered, should be actively involved in developing facility policies and procedures and educating staff, residents, and family members on the benefits of a less-restrictive diet based on each individual's needs.

CONCLUSIONS

Undernutrition, weight loss, poor food intake, satisfaction, and acceptance are serious issues in health care com-

munities. Despite the growing body of evidence discouraging the use of therapeutic diets in older adults, these diets are still regularly prescribed. Research has not demonstrated benefits of restricting sodium, cholesterol, fat, and/or carbohydrate in older adults (9). Additional research is needed to help practitioners make evidence-based decisions about nutrition care of older adults in health care communities.

RDs should evaluate each individual and assess the risks vs the benefits of a therapeutic diet. Maximizing meal intake can help prevent undernutrition and unintended weight loss, which can lead to additional health complications. Individualizing to the least-restrictive diet can enhance nutritional status and improve quality of life, particularly for an older adult with poor food/fluid intake or unintended weight loss.

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