Nutrition and Wellness Bureau

## Older Californians Nutrition Program Menu Guidance



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## Purpose \& Overview

The Older Californians Nutrition Program Menu Guidance includes instruction on applying the Dietary Guidelines for Americans, 2020-2025 to menu planning for the Older Californians Nutrition Program (OCNP). This menu guidance is based on the Dietary Guidelines and other related sources (see Resources section on page 31).

The Dietary Guidelines provide science-based advice on what to eat and drink to promote health, reduce risk of chronic disease, and meet nutrient needs. They focus on the public, including healthy individuals as well as those who are at risk of chronic disease. The Dietary Guidelines is designed for health professionals, policymakers, and others to assist the public in making food and beverage choices that are enjoyable, affordable, promote health and help prevent chronic disease.

The overarching differences between the Dietary Guidelines for Americans, 2020-2025 and prior editions include:

* For the first time, the Dietary Guidelines provide recommendations for healthy dietary patterns at every life stage, from infancy through older adulthood.
* Emphasis is placed on the importance of a healthy dietary pattern as a whole rather than on individual nutrients, foods, or food groups in isolation.
* The Dietary Guidelines includes a call to action to help the public "make every bite count with the Dietary Guidelines for Americans". As nutrition and health professionals, we are called to help people make food and beverage choices that are rich in nutrition-individual choices that can become a healthy routine over time.

The Dietary Guidelines provide four overarching guidelines that encourage healthy eating patterns at each stage of life:

1. Follow a healthy dietary pattern at every life stage.
2. Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions, and budgetary considerations.
3. Focus on meeting food group needs with nutrient-dense foods and beverages and stay within calorie limits.
4. Limit foods and beverages higher in added sugars, saturated fat, and sodium, and limit alcoholic beverages.

## Background

Since 1980, the U.S. Departments of Agriculture (USDA) and of Health and Human Services (HHS) review, update, and publish the Dietary Guidelines every five years.

The Dietary Guidelines establish the scientific and policy basis for all Federal nutrition food assistance programs and provide information for making food choices that promote health and prevent disease. The Dietary Guidelines are based on current science and priority has been placed on scientific studies that examine the relationship between diet and health across all life stages, in men, women, and children from diverse racial and ethnic backgrounds, who are healthy or at risk of chronic disease. A committee of experts recommends revisions to the Dietary Guidelines based on a comprehensive review of current scientific evidence and with consideration of Federal agency and public comments.

The Older Americans Act (OAA) and the California Code of Regulations (CCR) require that the Title IIIC Nutrition Program complies with the most recent Dietary Guidelines and the Dietary Reference Intakes (DRI). The intent of these requirements is to sustain and improve participant health through the provision of safe and nutritious meals.

Menus that follow the Dietary Guidelines and provide one-third of the DRIs in each meal help to prevent nutrient deficiencies and reduce the risk of chronic diseases such as heart disease, cancer, and stroke. The menu planning guidance incorporates the key nutrient recommendations from the Dietary Guidelines that impact the health of older adults.


## The Dietary Reference Intakes

As noted in the OAA and the CCR, meals must meet one-third of the DRIs. The DRIs are established and updated by the National Academies of Sciences, Engineering, and Medicine to provide requirements and limits for nutrients. The DRIs include four categories of reference intake values intended to help individuals optimize their health, prevent disease, and avoid consuming too much of a nutrient. The DRI values include:

* Estimated Average Requirement (EAR): Average daily nutrient intake level estimated to meet the requirement of half the healthy individuals in a particular age, sex, and life-stage group.
* Recommended Dietary Allowance (RDA): Average daily nutrient intake level sufficient to meet the nutrient requirement of nearly all (97-98\%) healthy individuals in a particular age, sex, and life-stage group.
* Adequate Intake (AI): An intake (not a requirement) that is likely to exceed the actual requirements of almost all individuals in an age, sex, and life-stage group; established when scientific evidence is not sufficient to determine an RDA.
* Tolerable Upper Intake Level (UL): the highest average daily nutrient intake level likely to pose no risk of adverse health effects for nearly all people in a particular age, sex, and life-stage group.
Research indicates using the highest DRI value available, the RDAs, will ensure meals provide adequate nutrients to the population served. The AI value is used when the RDA is not available for a particular nutrient. (Note: This is the case with fiber and potassium).



## Menu Planning Requirements

## General Menu Planning Requirements

Providing nutritious meals is a fundamental goal of the OCNP. Nutritional adequacy in menu planning is of key importance since the meals represent a significant percentage of participants' daily intake. According to research of OAA participants (Mabli et al. 2017), participants obtained about 40 percent of their daily caloric intake, as well as 35 to 47 percent of their daily nutrient intake, from the OAA Nutrition Program meals.

Meals incorporating the DRIs are nutritionally adequate; in other words, they have a low probability of nutrient inadequacy or excess. The DRIs ensure nutrient adequacy in menu planning, while the Dietary Guidelines provide recommendations for healthy eating patterns and food choices. Utilizing the Dietary Guidelines along with the DRIs in menu planning ensures that meals meet the nutrient needs of older adults in a healthy and enjoyable dietary pattern.

Nutritionally adequate meals can help improve the diets of older adults by increasing the consumption of fruits, vegetables, whole grains, dairy and by providing adequate protein. Nutritionally adequate meals also reduce the intake of added sugars, saturated fat, and sodium to help older adults achieve recommendations and manage and avoid chronic conditions. Providing nutrient-dense options within each food group and appropriate portion sizes is also important since the caloric needs of older adults decline with age.

A healthy dietary pattern includes:

* Vegetables of all types—dark green; red and orange; beans, peas, and lentils; starchy; and other vegetables
* Fruits, especially whole fruit
* Grains, at least half of the daily grains are whole grain
* Dairy, including fat-free or low-fat milk, yogurt, and cheese, and/or lactose-free versions and fortified soy beverages and yogurt as alternatives
* Protein foods, including lean meats, poultry, and eggs; seafood; beans, peas, and lentils; and nuts, seeds, and soy products
* Oils, including vegetable oils and oils in food, such as seafood and nuts

A healthy dietary pattern limits:

* Added sugars to less than 10 percent of calories per day
* Saturated fat to less than 10 percent of calories per day
* Sodium to less than 2,300 milligrams per day


## Special Nutrition Considerations

In addition to nutrients that are of concern for the general population, including calcium, vitamin D, potassium, and fiber, older adults have some special nutrition considerations.

## Protein:

Adequate protein intake is important for older adults to prevent the loss of lean muscle mass that occurs naturally with age. Provide at least 15 grams of protein per meal from the protein and dairy/soy alternatives food groups (refer to the Food Group section).

## Vitamin B12:

The ability to absorb vitamin B12 can decrease with age. Additionally, certain medications can decrease absorption. Vitamin B12 is found in foods of animal origin including tuna, salmon, beef, eggs, milk, yogurt, and cheese. B12 may also be added to some fortified foods such as breakfast cereals.

## Beverages:

It is important that older adults drink adequate fluids to prevent dehydration and aid in the digestion of food and absorption of nutrients. In addition to water, unsweetened fruit or vegetable juice, and low-fat or fat-free milk or fortified soy beverages help to increase fluid intake. Nutrition providers should encourage participants to drink water to promote adequate hydration and water must be readily accessible to participants during mealtimes.

## Requirements of Meals

In accordance with the OAA Section 339 and CCR Section 7638.5, the following requirements must be met for OCNP meals:

* Meals are in compliance with the most recent Dietary Guidelines and provide to each participating older individual:
- A minimum of one-third of the DRIs per meal if the program provides one meal per day.
- A minimum of two-thirds of the DRIs if the program provides two meals per day.
- 100 percent of the DRIs if the program provides three meals per day.

If multiple meals are offered per day, each meal must provide one-third of the DRIs; however, the meals may be combined to meet the required DRIs if able to verify that the participant is receiving all meals. For example, if a nutrition provider verifies that a participant receives two meals per day, the combined meals must meet two-thirds of the DRIs and be supported by a meal analysis.

* Meal analysis is conducted using either a nutrient analysis or a meal component pattern and is approved by a Registered Dietitian (RD) to ensure compliance with Dietary Guidelines and DRIs.
* Food substitutions to originally planned meals are approved by a RD.
* Menus meet the following requirements:
- are planned for a minimum of four weeks.
- are posted in a location easily seen by participants at meal sites and are provided to home-delivered meal participants.
- are legible and easy to read in the language of the majority of the participants.
- reflect cultural and ethnic dietary preferences of participants when feasible and appropriate.


## Participant Preferences

The meal planning process must not only include an evaluation of menus for nutritional adequacy but must also include procedures for obtaining participants' input regarding meals. Incorporating participant food preferences, including likes and dislikes and cultural food preferences, is a key aspect of successful menu planning.

## Offer Versus Serve

Offer Versus Serve (OVS) is a concept that applies to menu planning and meal service. OVS requires that all meal components must be offered to every eligible older individual receiving a meal; however, individuals can decline any component they choose. Giving individuals the option to select what items they want to eat can help reduce food waste.

If a significant number of meal participants consistently decline a particular item, a nutrition provider should consider routinely offering an alternative item. For example, if meal participants consistently decline milk, the provider may consider offering a nutritionally equivalent food or beverage from the dairy and soy alternatives food group that is preferred by those participants.

## Dietary Patterns and Target Nutrients

## Dietary Patterns

The Dietary Guidelines include dietary patterns that provide a framework for healthy eating. A dietary pattern consists of nutrient dense forms of foods and beverages across all food groups, in recommended amounts, and at appropriate calorie levels.

The Healthy U.S.-Style Dietary Pattern is USDA's primary dietary pattern and is the primary pattern used for the OCNP menu guidance. Other options for menu planning include USDA's Healthy Vegetarian Eating Pattern and the Dietary Approaches to Stop Hypertension (DASH) dietary pattern.

Each dietary pattern is available in various caloric levels. The sample dietary patterns found in Appendices 1-4 are based on 1600 calories per day. Caloric needs are based on several factors, including age, sex, height, weight, level of physical activity. The caloric needs of older adults generally decrease due to reductions in basal metabolic rate that occur with aging. The 1600 calorie level meets the minimum caloric requirements of an older adult female, which is representative of the majority of the older adult population served by the OCNP.

RDs may determine the dietary pattern that best suits the population served. Additionally, the calorie level of the dietary pattern may be increased to meet the minimum caloric requirements of an older adult male (2000 calories per day) if the majority of the population served is male. Dietary patterns for higher calorie levels can be found in the Dietary Guidelines for Americans, 2020-2025, Appendix 3, Table A3-2.


## Target Nutrients

The nutritional goals listed in Table 1 represent the current DRI values, per meal and per day, for target nutrients to meet the DRIs for a 51+ year old female which corresponds to 1600 calories per day.

Table 1. Nutritional Goals Per Day and Per Meal for Target Nutrients

| Nutrient | Source* | Target per Day | Target per Meal |
| :---: | :---: | :---: | :---: |
| Calories (Kcal) | AMDR | 1600 | 550-650 |
| Protein (g) * | RDA | $\geq 46$ | $\geq 15$ (from protein and dairy/soy alternative groups) |
| Fat (\% of total calories) | ADMR | 20-35\% | 20-35\% |
| Saturated Fat (\% of total calories) | DGA | $\leq 10 \%$ | $\leq 10 \%$ |
| Fiber (gm) | AI | $\geq 22$ | $\geq 7$ (weekly average) |
| Calcium (mg) | RDA | $\geq 1200$ | $\geq 400$ (weekly average) |
| Magnesium (mg) | RDA | $\geq 320$ | $\geq 105$ (weekly average) |
| Potassium (mg) | AI | $\geq 2600$ | $\geq 860$ (weekly average) ** |
| Sodium (mg) | Al and CDRR | $\leq 2300$ | $\leq 760$ (weekly average) |
| Vitamin A (mcg RAE***) | RDA | $\geq 700$ | $\geq 233$ (2-3 meals out of 5 meals per week) |
| Vitamin D (IU) | RDA | 600 | 200 (weekly average) |
| Vitamin C (mg) | RDA | $\geq 75$ | $\geq 25$ |
| Vitamin B12 (ug) | RDA | 2.4 | 0.8 (weekly average) |

* AI = Adequate Intake, AMDR = Acceptable Macronutrient Distribution Range; CDRR = Chronic Disease Risk Reduction Level; DGA = Dietary Guidelines for Americans, 2020-2025; RDA = Recommended Dietary Allowance.
** Prior to 2019, the AI for K+ was 4700 (1565 per meal) but was updated in 2019 to 2600 ( $860 /$ meal) for women and 3400 (1133 per meal) for men. Source: https://www.nap.edu/read/25353/chapter/8\#120 *** RAE $=$ Retinol Activity Equivalents


## Menu Analysis

## Compliance Requirements

Menus must be analyzed for nutritional adequacy and to ensure that the meals follow the Dietary Guidelines and provide a minimum of one-third of the DRIs as required by the OAA and CCR. Nutritional adequacy is based on standardized recipes and nutritional information published by the manufacturers for all menu items, including condiments. Nutritional information for fresh fruits and vegetables should be based on the type and amount to be served. All menus, and any substitutions, must be approved by a RD.

To meet compliance requirements, meals must supply a minimum of one-third of the DRIs for:

* Calories
* Protein
* Fiber
* Calcium
* Vitamin A
* Vitamin C

Additionally, meals should not exceed 760 mg sodium per meal, on average per week.

Menus may be analyzed using either the Computerized Nutrient Analysis or the Component Meal Pattern system.

## Nutrient Analysis

Computerized nutrient analysis is the most accurate method for analyzing meals for nutritional adequacy. Meals are in compliance with requirements when they meet onethird of the DRIs for target nutrients, provide an appropriate calorie level, and follow the Dietary Guidelines.

## Component Meal Pattern:

The component meal pattern serves as a basic framework for menu planning. Meals are in compliance with requirements when food component guidelines and serving sizes are followed. A sample component meal pattern is pictured in Figure 1 and is also available on the CDA website.

Figure 1. Sample Component Meal Pattern

| PM 21-XX Menu Guidance for the Older Californians Nutrition Program Sample Component Meal Pattern |  |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: |
| Nưrition Provider: <br> Menu Approved by: <br> Approved Date: <br> Menu Cycle Date: <br> Week: |  |  |  |  |  |
| Food Group | Monday | Tuesday | Wednesday | Thursday | Friday |
| PROTEIN (2 oz equivalent) 2 oz equiv: - 2 oz meat -1/2 cup beans |  |  |  |  |  |
| VEGETABLES ${ }^{1}$ ( $1-2$ servings) <br> 1 serving: - $1 / 2$ cup cooked - 1 cup raw <br> * indicates high in Vit C <br> ** indicates high in Vit A |  |  |  |  |  |
| FRUITS ${ }^{1}$ (1 serving) <br> 1 serving: - 1 medum fruit -1/2 cup chopped <br> * indicates high in Vit C <br> ** indicates high in Vit A |  |  |  |  |  |
|  |  |  |  |  |  |
| Dairy and Soy <br> Alternatives ( 1 serving) <br> 1 serving: - 8 oz mik, yogurt, or soy beverage <br> - $11 /$ ounce cheese |  |  |  |  |  |
| Other (optonal) (dessert, condiments) |  |  |  |  |  |
| $\begin{aligned} & \text { Sodium }{ }^{2}(\leq 760 \mathrm{mg} / \text { meal }) \\ & \text { List mg sodum per meal } \end{aligned}$ |  |  |  |  |  |
| ${ }^{1}$ Requirement for Vit C source ( 25 mg ) per meal and Vit A source ( $233 \mu \mathrm{~g}$ ) 2-3 fmes per week. Indicate foods high in Vit C ( ${ }^{*}$ ) and Vit A (*) ${ }^{\text {a }}$ ). |  |  |  |  |  |

To ensure nutrient adequacy using the component meal pattern, it is necessary to include specific types of fruits and vegetables, whole grains, high fiber foods, and the sodium content of foods and beverages.

* Fiber:

A weekly average of seven grams of fiber per meal can be met by including foods high in fiber each meal such as:

- Whole grains; vegetables; fruits; beans, peas, and lentils; nuts and seeds
* Calcium and Vitamin D:

Provide a calcium-rich food at each meal, such as:

- Milk, yogurt, and fortified soy beverages

Dietary sources of Vitamin D include:

- Seafood and foods that are fortified with Vitamin D, including milk and fortified soy beverages
* Vitamin A:

One-third of the DRI for vitamin A can be met by including a food high in vitamin A at least two to three times per week such as:

- Spinach, sweet potato, pumpkin, carrots, cantaloupe, red peppers
* Vitamin C:

One-third of the DRI for Vitamin C can be met by including a food high in vitamin C each meal such as:

- Fruits: orange, kiwi, strawberries, cantaloupe, tomato
- Vegetables: broccoli, green/red pepper, brussels sprouts
* Sodium:

Limit sodium to a weekly average of less than or equal to 760 mg per meal. Meals containing over 1000 mg of sodium must not exceed more than one meal per week. Tips for reducing the sodium content of meals are found in Figure 2.


## Food Groups

The Dietary Guidelines include recommendations for food groups—vegetables, fruits, grains, dairy, and protein foods. A healthy dietary pattern consists of nutrient-dense foods and beverages from each of the food groups, in recommended amounts.
Selections, serving sizes, and tips are provided for each of the food groups in this section.

## Protein Foods

When developing menus, be sure to include a variety of protein foods from both animal and plant sources. The meat, poultry, and egg subgroup is a common source of protein. Meat and poultry selections should be from fresh, frozen, or canned, and in lean forms (e.g., chicken breast or ground turkey) instead of processed meats (e.g., hot dogs, sausages, ham, and luncheon meats). Add variety by including foods from the seafood, fortified soy products, and beans, peas, and lentils subgroups which provide important nutrients that support health and are under consumed in older adults. For example, the beans, peas, and lentils subgroup provides dietary fiber while many choices within the seafood subgroup provide vitamins D, B12, and beneficial fatty acids.

Each meal should contain a minimum of a two-ounce protein equivalent from the categories below. If the two-ounce protein equivalent provided does not contain adequate protein, the requirement to provide 15 grams of protein per meal may be met by also counting the grams of protein provided from the dairy/soy alternatives food group. The following are examples of a two-ounce protein equivalent:

- 2 ounces cooked, edible portion of meat, poultry, seafood
- 2 eggs
- $1 / 2$ cup cooked beans or tofu
- 2 tablespoons nut or seed butter
- 1 ounce nuts or seeds

The protein food group includes the following subgroups:
Meat, Poultry, Eggs: Meats include lean or low-fat beef, goat, lamb, pork, and game meat. Poultry includes chicken, Cornish hens, duck, game birds, goose, and turkey. Eggs include chicken eggs and other birds' eggs.

Seafood: Select seafoods that are lower in methylmercury such as anchovy, black sea bass, catfish, clams, cod, crab, crawfish, flounder, haddock, hake, herring, lobster, mullet, oyster, perch, pollock, salmon, sardine, scallop, shrimp, sole, squid, tilapia, freshwater trout, light tuna, and whiting.

Beans, Peas, and Lentils: All cooked from dry or canned beans, peas, chickpeas, and lentils: for example, black beans, black-eyed peas, bayo beans, chickpeas (garbanzo beans), edamame, kidney beans, lentils, lima beans, mung beans, pigeon peas, pinto beans, and split peas. Does not include green beans or green peas.

Please Note: Beans, peas, and lentils are part of the protein food group and the vegetable group but are counted in one group only. For example: If you are serving vegetarian burrito bowls with pinto beans and bell peppers, the pinto beans would be used to meet the protein requirement and would not count toward the vegetable requirement.

Nuts, Seeds, Soy Products: Nuts and seeds include all nuts (tree nuts and peanuts), nut butters, seeds (e.g., chia, flax, pumpkin, sesame, and sunflower), and seed butters (e.g., sesame or tahini and sunflower). Soy includes tofu, tempeh, and products made from soy flour, soy protein isolate, and soy concentrate. Nuts and seeds should be unsalted.


## Vegetables

Healthy dietary patterns include a variety of vegetables from all five vegetable subgroups—dark green; red and orange; beans, peas, and lentils; starchy; and other. These include all fresh, frozen, canned, and dried options in cooked or raw forms, including 100\% vegetable juices. Vegetables in their nutrient-dense forms have limited additions such as salt, butter, or creamy sauces.

Each meal should contain a minimum of one to two servings of vegetables, and a variety of vegetables from each of the five subgroups should be included each week. Meeting the recommended servings of vegetables will contribute to meeting the requirement for 7 grams of fiber per meal (may average fiber over the number of meals provided per week).

The serving size for vegetables includes:

- $1 / 2$ cup fresh, chopped, cooked, frozen, or canned vegetable
- 1 cup raw leafy salad greens
- $1 / 2$ cup $100 \%$ vegetable juice
- $1 / 2$ cup dried vegetable

Creating a healthy menu will require offering foods from all vegetable subgroups, offering a variety of different vegetables from each subgroup, and shifting to nutrientdense forms. Vegetables can be part of many types of mixed dishes, from burgers, sandwiches, and tacos, to pizza, stews, pasta dishes, grain-based casseroles, and soups. Strategies to increase vegetable intake include increasing the vegetable content of mixed dishes or providing smaller main dishes to allow for more nutrient dense vegetables as side dishes. When counting vegetable servings in mixed dishes, it is important to review recipes to ensure the portion provided meets the required serving size for vegetables.

The vegetable group includes five subgroups and at least one serving from each subgroup should be included in the menu each week. The five subgroups include:

Dark-Green Vegetables: All fresh, frozen, and canned dark-green leafy vegetables and broccoli, cooked or raw: for example, amaranth leaves, basil, beet greens, bitter melon leaves, bok choy, broccoli, chrysanthemum leaves, chard, cilantro, collards, cress, dandelion greens, kale, mustard greens, romaine lettuce, spinach, nettles, turnip greens, and watercress.

Red and Orange Vegetables: All fresh, frozen, and canned red and orange vegetables or juice, cooked or raw: for example, calabaza, carrots, red chili peppers, red or orange bell peppers, pimento/pimiento, sweet potatoes, tomatoes, $100 \%$ tomato juice, and winter squash such as acorn, butternut, kabocha, and pumpkin.

Beans, Peas, Lentils: All cooked from dry or canned beans, peas, chickpeas, and lentils: for example, black beans, black-eyed peas, bayo beans, brown beans, chickpeas (garbanzo beans), cowpeas, edamame, fava beans, kidney beans, lentils, lima beans, mung beans, navy beans, pigeon peas, pink beans, pinto beans, split peas, soybeans, and white beans. Does not include green beans or green peas.

Please Note: Beans, peas, and lentils are part of the protein food group and the vegetable group but should be counted in one group only. For example: If you are serving vegetarian burrito bowls with pinto beans and bell peppers, the pinto beans can only be used to meet the protein requirement and cannot count toward the vegetable requirement.

Starchy Vegetables: All fresh, frozen, and canned starchy vegetables: for example, breadfruit, burdock root, cassava, corn, jicama, lotus root, lima beans, immature or raw (not dried) peas (e.g., cowpeas, black-eyed peas, green peas, pigeon peas), plantains, white potatoes, salsify, tapioca, taro root (dasheen or yautia), water chestnuts, yam, and yucca.

Other Vegetables: All other fresh, frozen, and canned vegetables, cooked or raw: for example, artichoke, asparagus, avocado, bamboo shoots, bean sprouts, beets, bitter melon (bitter gourd, balsam pear), Brussels sprouts, cabbage (green, red, napa, savoy), cactus pads (nopales), cauliflower, celeriac, celery, chayote (mirliton), chives, cucumber, eggplant, fennel bulb, garlic, ginger root, green beans, iceberg lettuce, kohlrabi, leeks, luffa (Chinese okra), mushrooms, okra, onions, peppers (chili and bell types that are not red or orange in color), radicchio, sprouted beans (e.g. sprouted mung beans), radish, rutabaga, seaweed, snow peas, summer squash, tomatillos, turnips, and winter melons.


## Fruits

The fruit food group includes whole fruits and 100\% fruit juice. Whole fruits include fresh, canned, frozen, and dried forms. Whole fruits can be eaten in various forms, such as cut, sliced, diced, or cubed. At least half of the recommended amount of fruit should come from whole fruit, rather than $100 \%$ juice as fruit juice lacks dietary fiber and can increase blood sugar (glucose) levels. When juices are provided, they should be 100\% juice and always pasteurized. When selecting canned fruit, choose options that are canned with 100\% juice.

When planning menus, select whole fruits instead of fruit juice to increase fiber content. Add variety by offering various types of whole fruits and offering them in forms that are easy for older adults to eat such as pre-peeled, sliced, cut or cubed.

Each meal must contain at least one serving of fruit. The following are examples of one serving:

- 1 medium sized whole fruit
- $1 / 2$ cup fresh, chopped, cooked, frozen, or canned fruit
- $1 / 2$ cup $100 \%$ fruit juice $1 / 4$ cup dried fruit

Please Note: Fruit-based desserts, such as pies or cobblers, may not be used to meet the full required servings for fruit in a meal. A fruit-based dessert containing one-quarter cup of fruit per serving may be counted as meeting half of the required fruit per meal.

The fruit group includes:
All fresh, frozen, canned, and dried fruits and $100 \%$ fruit juices: for example, apples, apricots, Asian pears, bananas, berries (e.g., blackberries, blueberries, cranberries, currants, dewberries, huckleberries, kiwifruit, loganberries,
 mulberries, raspberries, and strawberries); citrus fruit (e.g., calamondin, grapefruit, kumquats, lemons, limes, mandarin oranges, pomelos, tangerines, and tangelos); cherries, dates, figs, grapes, guava, jackfruit, lychee, mangoes, melons (e.g., cantaloupe, casaba, honeydew, and watermelon); nectarines, papaya, passion fruit, peaches, pears, persimmons, pineapple, plums, pomegranates, prunes, raisins, rhubarb, sapote, soursop, starfruit, and tamarind.

## Grains

A healthy dietary pattern includes at least half of the total daily grains as whole grains and limits refined grains. When planning menus, at least half of the total grains in each meal should be whole grains. For example, if a meal includes two one-ounce servings from the grain group, one of the servings must be a whole grain food and the overall total of whole grains in the meal equal to or greater than 50 percent.

Refined grains have been processed to remove parts of the grain kernel in a process that also removes fiber, iron, and many B vitamins. Refined grains should be enriched which means that iron and some $B$ vitamins are added back (fiber is not added back). When using refined grains, check the ingredient list to make sure that the word "enriched" is included the grain name. Fifty-fifty mixtures of white and brown rice meet the requirement for whole grain.

Shifting from refined to whole-grain versions of commonly consumed foods increases whole grains and lowers refined grains to help meet recommendations. Examples include shifting from white to $100 \%$ whole-wheat breads, from white to brown or wild rice, and from pasta to whole grain pasta.

Each meal must contain at least one to two servings from the grain group with at least half as whole grain in each meal. The following are examples of one serving:

- 1 slice bread
- $1 / 2$ cup cooked rice, pasta, or cooked cereal
- 1 tortilla ( 6 " diameter)
- 1 cup ready-to-eat-cereal
- 1 ounce whole wheat crackers

Please note: Grain-based desserts, such as cakes, pies or cobblers, may not be used to meet the full required servings for grains in a meal. A grain-based dessert containing one-quarter cup of grains (or equivalent) per serving may be counted as meeting half of a grain serving.

The grain group includes:
Whole Grains: All whole-grain products and whole grains used as ingredients: for example, amaranth, barley (not pearled), brown rice, buckwheat, bulgur, millet, oats, popcorn, quinoa, dark rye, triticale, whole-grain cornmeal, whole-wheat bread, wholewheat chapati, whole-grain cereals and crackers, nixtamalized corn and wild rice.

Refined Grains: All refined-grain products and refined grains used as ingredients: for example, white breads, refined-grain cereals and crackers, cream of rice, cream of wheat, barley (pearled), masa, pasta, and white rice. Refined-grain choices should be enriched.

## Identifying Whole Grain Foods

There are several ways to determine if a product meets the whole grain requirement.

1. The food's ingredient list has whole grain as the first ingredient, or the second ingredient, after water and the next two ingredients must be enriched grain, bran, germ, or whole grain.
2. For ready to eat cereals, the first ingredient listed must be whole grain and the cereal must be fortified to meet the whole grain requirement.
3. If a food uses nixtamalized corn (meaning the corn is treated with lime) it can be counted as a whole grain. You can determine if it is a whole grain by using the ingredient list, the first ingredient must be corn treated with lime and enriched grains should be the second or third ingredient.
4. If the food meets the whole grain requirement for the USDA National School Lunch Program or the USDA Child and Adult Care Food Program.
5. A product formulation statement or standardize recipe from the manufacturer that shows the primary ingredient by weight are whole grain.

Please note that wheat by products/derivatives (dextrin, wheat gluten, corn starch, etc.) do not count toward the whole grain requirement.


## Dairy and Soy Alternatives

Each meal should include one serving from the dairy or soy alternative group. Foods from this group should be fat-free or low-fat (1\%) milk, yogurt, and cheese. Low-lactose and lactose-free dairy products are available for individuals who are lactose intolerant. Dairy alternatives, including fortified soy beverages (also known as "soy milk") and soy yogurt are included as part of this group because they have similar nutrient composition to milk and yogurt. Products made from plants (e.g., almond, rice, coconut, oat, and hemp "milks") are not included as part of the dairy group because their overall nutritional content is not similar to dairy milk and fortified soy beverages.

The following are examples of one serving:

- 1 cup (8 ounces) milk, yogurt, or fortified soy beverage
- $1 \frac{1}{2}$ ounces cheese or $1 / 3$ cup shredded cheese

The dairy and soy alternatives group includes:
All fluid, dry, or evaporated milk, including lactose-free and lactose-reduced products and fortified soy beverages (soy milk), buttermilk, yogurt, kefir, frozen yogurt, and cheeses (e.g., brie, camembert, cheddar, cottage cheese, colby, edam, feta, fontina, goat, gouda, gruyere, limburger, Mexican cheeses [queso anejo, queso asadero, queso chihuahua], monterey jack, mozzarella, muenster, parmesan, provolone, ricotta, and Swiss). Most choices should be fat-free or low-fat.

Cream, sour cream, and cream cheese are not included due to their low calcium content.


## Other Menu Planning Considerations

## Sodium

The Dietary Guidelines recommend limiting sodium to the Chronic Disease Risk Reduction (CDRR) level defined by the National Academies based on evidence of the beneficial effect that reducing sodium intake has on hypertension risk and cardiovascular disease risk. Although the established Al for sodium is 1500 mg per day, the CDRR recommendation is to reduce sodium intakes if above 2300 mg per day and this recommendation is the basis for the OCNP target of 760 mg sodium per meal.

When planning menus, the target for sodium content is less than or equal to 760 mg sodium per meal, averaged over the number of meals provided in one week.

Meals containing equal to or greater than 1000 mg of sodium should be avoided. High sodium meals containing equal to or greater than 1000 mg , must not exceed more than one meal per week and must be identified on the nutrient analysis and on the participant menu as containing greater than 1000 mg sodium.

Figure 2 provides strategies and tips for lowering the sodium content in meals.


Figure 2.

| Tips for Reducing the Sodium Content in Meals |  |  |
| :---: | :---: | :---: |
| Instead of: |  | Try: |
| Flavoring foods with salt, high sodium seasonings, soy sauce |  | Onions, garlic, fresh or dried herbs, spices, vinegars, citrus juices, diluted soy sauce (equal parts soy sauce and water) |
| High sodium soup bases and canned foods |  | Low sodium, reduced sodium* or no salt added soup bases and canned goods |
| High sodium canned foods (vegetables, legumes) |  | Drain and rinse canned foods like vegetables and legumes with water |
| Canned vegetables with salt, frozen vegetables with sauce |  | Fresh, canned without salt, or frozen vegetables without sauce |
| Processed meats, poultry, and seafood (deli meat, sausage, pepperoni, sardines) |  | Fresh meat, poultry, and seafood |
| Instant products like flavored rice and ready-made pasta |  | Regular rice and pasta with low sodium seasonings and sauces |
| High sodium condiments like ketchup, mustard, pickles, olives, salad dressings |  | Low or reduced sodium* condiments and salad dressings |
| Purchasing products without comparing nutrition labels |  | Reading the Nutrition Facts labels to compare products and choose lower sodium foods |

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## Hydration and Fluids

It is important that older adults drink plenty of water to prevent dehydration and aid in the digestion of food and absorption of nutrients. In addition to water, unsweetened beverages such as 100 percent fruit or vegetable juice, fat-free or low-fat (1 percent) milk, and fortified soy beverages all support the fluid needs of older adults. The water contained in foods such as fruits, vegetables, and soups also contributes to total fluid intake.

Nutrition providers should encourage participants to drink water to promote adequate hydration and water should be readily accessible to participants during mealtimes. Water intake is particularly important if non-fluid menu selections from the dairy and soy alternatives group are used.

## Fats

A healthy dietary pattern includes oils, including vegetable oils and oils in food, such as seafood and nuts. Oils provide essential fatty acids are an important part of a healthy dietary pattern. Saturated fat, from sources including high-fat meats, full-fat dairy products, and butter, should be limited to less than ten percent of calories.

The saturated fat content of meals can be lowered by purchasing and cooking products made with oils higher in polyunsaturated and monounsaturated fat (e.g., canola, corn, olive, peanut, safflower, soybean, and sunflower) rather than butter, shortening, or coconut or palm oils.

Other strategies include providing lower fat forms of foods and beverages (e.g., fat-free or 1 percent milk instead of 2 percent or whole milk; lean rather than fatty cuts of meat) and reducing frequency and/or portion sizes of desserts containing saturated fats, which are also often high in added sugars.

As of June 2018, partially hydrogenated oils (PHOs), the major source of artificial transfat in foods, are no longer Generally Recognized as Safe (GRAS) and are no longer added to foods. Menus following the Dietary Guidelines are limited in trans-fat as a small amount of trans fat occur naturally in some animal source food.

Oils
Canola, corn, olive, peanut, safflower, soybean, and sunflower oils. Oils are also naturally present in nuts, seeds, seafood, olives, and avocados.

Note: Coconut oil, palm kernel oil, and palm oil are not included in the oils category because they contain a higher percentage of saturated fat than do other oils.

## Saturated Fats

High-fat meats, full-fat dairy products (whole milk, $2 \%$ milk, cheese, ice cream), butter, coconut oil, palm kernel oil, and palm oil.

## Dessert

The Dietary Guidelines include recommendations for nutrient-dense foods. Nutrientdense foods provide vitamins, minerals, and other health-promoting components and have little added sugars, saturated fat, and sodium.

The caloric needs of older adults are often lower due to reduced physical activity, changes in metabolism, and/or age-related loss in bone and muscle mass, while vitamin and mineral needs are similar or higher compared to younger adults. The unique nutritional needs of older adults make it particularly important for OCNP menus to provide nutrient-dense foods and limit desserts which are often high in saturated fat, added sugars, and refined grains.

Desserts high in saturated fat, added sugars, and/or refined grains should be limited to no more than once a week and should be an optional element of the meal. Instead, provide fruits, including fresh, frozen, canned, or dried fruit as desserts.

If a fruit- or grain-based dessert, such as cake, pie, or cobbler, is counted toward the fruit and/or grains requirement, it may be used to meet a portion, but not the full required servings for fruit and grains in a meal. A fruit-based dessert containing onequarter cup of fruit per serving may be counted as meeting half of the required fruit per meal. A grain-based dessert containing one-quarter cup of grains (or equivalent) per serving may be counted as meeting half of a grain serving.


## Reading Food Labels

Reading food labels on packaged foods and beverages will provide important nutrition information to assist you in menu planning.

## Ingredient List

The ingredient list identifies each ingredient in the food product. Ingredients are listed in order of predominance, with the ingredients used in the greatest amount first, followed in descending order by those in smaller amounts.

## Nutrition Facts Label

The Nutrition Facts Label contains product-specific information for serving size, calories, and nutrient information. The U.S. Food and Drug Administration (FDA) requires a Nutrition Facts label on most packaged food and beverages. See Figure 3 below for details.

Figure 3. Nutrition Facts Label


Source: https://www.fda.gov/food/new-nutrition-facts-label/how-understand-and-use-nutrition-facts-label

1. Serving Information: The serving size is listed at top of the Nutrition Facts label and is based on the amount that people typically eat at one time. It is not a recommendation of how much to eat. All the nutrient amounts on the label refer to the serving size listed.
2. Calories: The calorie level is provided for the serving size listed. The target for OCNP meals is $550-650$ calories per meal.
3. Nutrients: The nutrients section of the Nutrition Facts label provides the amount of each nutrient for the serving size listed. This will help you identify foods high in saturated fat, sodium, and added sugars (sugars that are added during food processing) and compare with other products. The label will also help you identify nutrients that should be included in a healthy diet, including fiber, vitamin D, calcium, iron, and potassium.
4. Percent Daily Value (\% DV): The percent Daily Value provides the percentage of each nutrient in a 2,000-calorie diet. Since the OCNP meal is based on a 1,600calorie diet, the actual \% DV will be higher than what is listed on the label.

As a rule of thumb, if a food has five\% DV or less of a nutrient per serving, it is considered low in that nutrient. If it has $20 \%$ DV or more of a nutrient per serving, it is considered high in that nutrient. Low or high can be either good or bad-it depends on whether you need more of a nutrient (like fiber) or less (like sodium). Nutrients that should be included in a healthy diet, including fiber, vitamin D, calcium, iron, and potassium should ideally have a high DV. Since saturated fat, sodium, and added sugars should be limited in a healthy diet, the DV for these should be low.


## Nutrient Content Claims on Food Packaging

Nutrient content claims on food products characterize the level of a nutrient in the food. The U.S. Food and Drug Administration (FDA) provides specific definitions for nutrient content claim on food packaging. Figure 4 provides commonly used claims on food packaging and what these claims mean.

Figure 4. Understanding Nutrient Content Claims on Food Packaging

| Sodium Claims | Meaning of Claim |
| :--- | :--- |
| Sodium free or salt free | Less than 5 mg per serving |
| Very low sodium | 35 mg or less per serving |
| Low sodium | 140 mg or less per serving |
| Reduced or less sodium | At least $25 \%$ less than the regular product |
| Light in sodium or lightly <br> salted | At least 50\% less than the regular product |
| Unsalted or no salt added | No salt added during processing (this is not a sodium-free <br> food) |
| Fat Claims | Meaning of Claim |
| Fat-free | Less than 0.5 g per serving |
| Low saturated fat | 1g or less per serving and 15\% or less calories from <br> saturated fat |
| Low-fat | 3 g or less per serving |
| Reduced fat | At least 25\% less than the regular product |
| Sugar Claims | Meaning of Claim |
| Sugar free | Less than 0.5 grams sugars and no ingredient that is a <br> sugar |
| Reduced sugar or less <br> sugar | At least 25\% less sugars than the regular product |
| No added sugar | No sugar or sugar-containing ingredient added during <br> processing |

Source: $\underline{h t t p s: / / w w w . f d a . g o v / r e g u l a t o r y-i n f o r m a t i o n / s e a r c h-f d a-g u i d a n c e-d o c u m e n t s / g u i d a n c e-i n d u s t r y-~}$ food-labeling-guide

## Appendices

Appendix 1

## Older Californians Nutrition Program 1600 Calorie Dietary Pattern

| Calorie Level |  | Per Day <br> 1600 | Per Meal 550 |
| :---: | :---: | :---: | :---: |
| Food Group or Subgroup | Serving Size | Serving(s) | Serving(s) |
| Vegetables <br> - Dark-Green Vegetables <br> - Red and Orange Vegetables <br> - Beans, Peas, Lentils <br> - Starchy Vegetables <br> - Other Vegetables | - $1 / 2$ cup fresh, chopped, cooked, frozen, or canned fruit <br> - 1 cup raw leafy salad greens <br> - $1 / 2$ cup $100 \%$ vegetable juice <br> - $1 / 2$ cup dried vegetable | 4 | 1-2 |
| Fruits | - 1 medium sized whole fruit <br> $-1 / 2$ cup fresh, chopped, cooked, frozen, or canned fruit <br> - $1 / 2$ cup $100 \%$ fruit juice <br> - $1 / 2$ cup dried fruit | 3 | 1 |
| Grains (at least 1/2 as whole grain) | - 1 slice bread <br> - $1 / 2$ cup cooked rice, pasta, or cooked cereal <br> - 1 tortilla ( 6 " diameter) <br> - 1 cup ready-to-eat-cereal <br> - 1 ounce whole wheat crackers | 5 | 1-2 |
| Dairy and Soy Alternatives | - 1 cup (8 ounces) milk, yogurt or fortified soy beverage <br> - $11 / 2$ ounces cheese or $1 / 3$ cup shredded cheese | 3 | 1 |
| Protein Foods | - 2 ounces meat, poultry, seafood <br> - 2 eggs <br> - $1 / 2$ cup cooked beans or tofu <br> - 2 tablespoons nut or seed butter <br> - 1 ounce nuts or seeds | 2.5 | 1 |

Appendix 2

| Healthy U.S.-Style Dietary Pattern |  |  |
| :---: | :---: | :---: |
| Calorie Level | $\begin{gathered} \text { Per Day } \\ 1600 \end{gathered}$ | Per Meal 550 |
| Food Group or Subgroup | Number of servings | Number of servings |
| Vegetables <br> - Dark-Green Vegetables <br> - Red and Orange Vegetables <br> - Beans, Peas, Lentils <br> - Starchy Vegetables <br> - Other Vegetables | 2 cups <br> ( $4-1 / 2$ cup servings) | $\begin{gathered} 1 \text { cup } \\ (2-1 / 2 \text { cup servings }) \end{gathered}$ |
| Fruits | $\begin{gathered} 1.5 \text { cups } \\ (3-1 / 2 \text { cup servings }) \end{gathered}$ | $\begin{gathered} 0.5 \text { cup } \\ \text { (1-1/2 cup servings) } \end{gathered}$ |
| Grains | 5 ounces | 1.5-2 ounces |
| - Whole Grains | 3 ounces | 1 ounce |
| - Refined Grains | 2 ounces | 0.5-1 ounce |
| Dairy and Soy Alternatives | 3 cups | 1 cup |
| Protein Foods <br> - Meats, Poultry, Eggs <br> - Seafood <br> - Nuts, Seeds, Soy Products | 5 ounces | 2 ounces |
| Oils | 22 grams | 7 grams |
| Limit on Calories for Other Uses | 100 calories | 33 calories |

Appendix 3

| Healthy Vegetarian Dietary Pattern |  |  |
| :---: | :---: | :---: |
| Calorie Level | Per Day $1600$ | Per Meal $550$ |
| Food Group or Subgroup | Number of servings | Number of servings |
| Vegetables <br> - Dark-Green Vegetables <br> - Red and Orange Vegetables <br> - Beans, Peas, Lentils <br> - Starchy Vegetables <br> - Other Vegetables | 2 cups <br> ( $4-1 / 2$ cup servings) | $\begin{gathered} 1 \text { cup } \\ (2-1 / 2 \text { cup servings) } \end{gathered}$ |
| Fruits | $\begin{gathered} 1.5 \text { cups } \\ (3-1 / 2 \text { cup servings }) \end{gathered}$ | 0.5 cup ( $1-1 / 2$ cup servings) |
| Grains | 5.5 ounces | 1.5-2 ounces |
| - Whole Grains | 3 ounces | 1 ounce |
| - Refined Grains | 2.5 ounces | 0.5-1 ounce |
| Dairy and Soy Alternatives | 3 cups | 1 cup |
| Protein Foods <br> - Eggs <br> - Beans, Peas, Lentils <br> - Soy Products <br> - Nuts and Seeds | 2.5 ounces | 1 ounce |
| Oils | 22 grams | 7 grams |
| Limit on Calories for Other Uses | 150 calories | 50 calories |

Appendix 4
Dietary Approaches to Stop Hypertension (DASH) Dietary Pattern

| Calorie Level | Per Day <br> 1600 | Per Meal <br> 550 |
| :--- | :---: | :---: |
| Food Group or <br> Subgroup | Number of servings | Number of servings |
| Grains* | 6 | 2 |
| Vegetables | $3-4$ | $1-1.5$ |
| Fruits | 4 | $1-1.5$ |
| Dairy Products | $2-3$ | 1 |
| Lean Meat, Poultry, Fish | $3-4$ | $1-1.5$ |
| Nuts, Seeds, Legumes | $3-4$ | $1-1.5$ |
| Fats and Oils | 2 | $.5-1.0$ |
| Sweets | 3 or less per week | 1 or less per week |

* Whole grains recommended for most grain servings.

Refer to the DASH Eating Plan for serving sizes and examples of foods in each food group: https://www.nhlbi.nih.gov/health-topics/dash-eating-plan

## Resources

National Academies of Sciences, Engineering, and Medicine 2019. Dietary Reference Intakes for Sodium and Potassium. Washington, DC: The National Academies Press. https://doi.org/10.17226/25353.

Institute of Medicine. 2006. Dietary Reference Intakes: The Essential Guide to Nutrient Requirements. Washington, DC: The National Academies Press.
https://doi.org/10.17226/11537.
Mabli J, et al (2017) Evaluation of the effect of the Older Americans Act Title III-C
Nutrition Services Program on participants' food security, socialization, and diet quality, April 21, 2017.
https://acl.gov/sites/default/files/programs/2017-07/AoA outcomesevaluation final.pdf
National Heart, Lung, and Blood Institute: Dietary Approach to Stop Hypertension: https://www.nhlbi.nih.gov/health-topics/dash-eating-plan

Older Americans Act of 1965, as Amended, Section 339 - Nutrition Service. Older Americans Act of 1965 Amended March 2020 (acl.gov)

Title 22, California Code of Regulations, Chapter 4, Article 5. Title IIIC - Elderly Nutrition Program.
U.S. Department of Agriculture and U.S. Department of Health and Human Services. Dietary Guidelines for Americans, 2020-2025. 9th Edition. December 2020. Available at DietaryGuidelines.gov (https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials).
U.S. Food and Drug Administration, A Food Labeling Guide. 2013:
https://www.fda.gov/regulatory-information/search-fda-guidance-documents/guidance-industry-food-labeling-guide
U.S. Food and Drug Administration, How to Understand and Use the Nutrition Facts Label: https://www.fda.gov/food/new-nutrition-facts-label/how-understand-and-use-nutrition-facts-label
U.S. Food and Drug Administration, Using the Nutrition Fact Label: For Older Adults. February 2020. https://www.fda.gov/media/135599/download.
U.S. Department of Agriculture, USDA Food and Nutrition Service Crediting Handbook for the Child and Adult Care Food Program, March 2020.
https://www.fns.usda.gov/tn/crediting-handbook-child-and-adult-care-food-program


[^0]:    * Foods labeled "reduced sodium" may still be high in sodium. Read the Nutrition Facts label to determine sodium content.

