

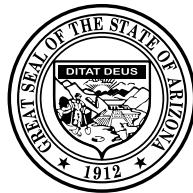


DEPARTMENT OF ECONOMIC SECURITY

Your Partner For A Stronger Arizona

Nutrition, Food Service, And Wellness Manual

2023



Arizona Department of Economic Security
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Introduction

Adequate nutrition is critical to health, functioning, and quality of life, and is thus an important component of home and community-based services for older adults.

The Senior Nutrition Program (SNP) is authorized under the Older Americans Act (OAA), Title III, Grants for State and Community Programs on Aging, and Title VI, Grants for Native Americans. The Administration for Community Living's (ACL) Administration on Aging (AoA) provides grants to support nutrition services to older adults throughout the country. The SNP's focus is to improve participants' dietary intake, provide opportunities for social engagement and offer information about healthy aging to improve overall health and wellbeing.

The Nutrition, Food Service, and Wellness Manual is a reference guide for AAAs and local service providers to implement and manage nutrition programs under the OAA. The manual covers the nutrition and food service standards from the Older Americans Act of 1965 and subsequent amendments and reauthorizations, with the most recent reauthorization having occurred in 2020.¹

This manual provides tools to implement and manage disease prevention and evidence-based health promotion programs (DPHP). The purpose of the DPHP programs is to prevent or delay the onset of adverse health conditions resulting from poor nutritional health and reduce the risk of injury, disease, and disability. The information provided in the manual will assist the AAAs and local service providers in complying with Federal and State Standards, various regulatory agency compliance requirements, and the licensor requirements for which they are responsible.²

This manual also includes guidelines to assist AAAs and their providers to meet the requirement to coordinate activities and develop long-range emergency preparedness plans, in conjunction with local emergency response agencies, local governments, state agencies responsible for emergency preparedness, and other entities involved in disaster relief.

1 Gov Info (n.d.) Supporting Older Americans Act of 2020, Pub L. 116 - 131 (2020).

2 Arizona Administrative Code (A.A.C.). R9-8-101 et. seq.

1 Authority And Responsibility

1.1 Older Americans Act

Overview

The Older Americans Act was originally signed into law by President Lyndon B. Johnson on July 14, 1965. In addition to creating the Administration on Aging, it authorized grants to States for community planning, research, demonstration, and training projects in the field of aging. Later amendments to the Act added grants to Area Agencies on Aging (AAAs) for local needs, including but not limited to, community-based and homebound nutrition programs; programs that serve Native American elders; services targeted at low-income minority elders; health promotion and disease prevention activities; in-home services for frail elders, and services that protect the rights of older persons, such as the long-term care ombudsman program.³

The State Unit on Aging (SUA) and the AAAs are responsible for developing greater capacity and implementing comprehensive and coordinated systems which serve older individuals by entering into new cooperative arrangements for the planning and provision of supportive services and multipurpose senior centers, in order to:

- Secure and maintain maximum independence and dignity in a home environment for older individuals capable of self care with appropriate supportive services;
- Remove individual and social barriers to economic and personal independence for older individuals;
- Provide a continuum of care for vulnerable older individuals;
- Secure the opportunity for older individuals to receive managed in-home and community-based long-term care services; and
- Measure impacts related to social determinants of health of older individuals.

The nutrition service system provides older Arizonans access to nutrition services, nutrition and health-related education, and nutritionally sound meals. Particular attention is given to older adults who:

- Have the greatest economic need;
- Have lower incomes;
- Are low income minorities;
- Have limited English proficiency; and
- Reside in rural areas.

3 Administration for Community Living - (ACL) - (n.d.). Older Americans Act of 1965, Pub L. 116-131 (2020).

1.2 Policies and Procedures

As the State Unit on Aging (SUA), DAAS is responsible for developing policies and procedures for the administration of programs and services. The [DAAS Policy and Procedure Manual](#) is available on the [DES website](#).

The purpose of the [DAAS Policy and Procedure Manual](#) is to document program policies and requirements for contractors (AAAs) who implement the OAA programs. The manual establishes the regulatory agency of administrative standards for AAAs, Area Plans on Aging, and services and programs for older Arizonans. Policy changes can stem from several sources, including recently published or revised Federal and State regulations, changes in accepted standards of practice, and emerging technology.

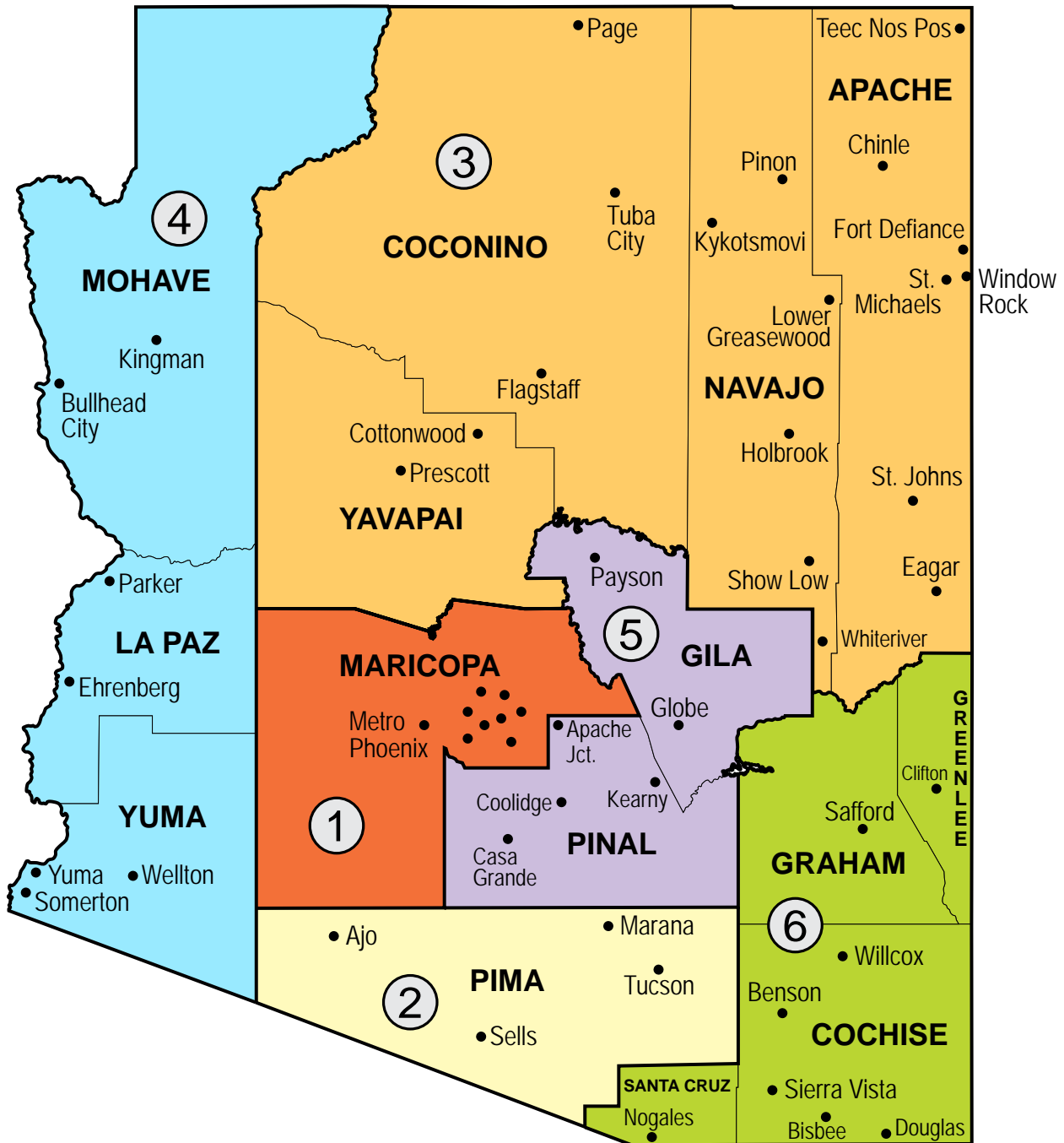
For the purposes of this Manual, focus will be placed on sections [3100](#) and [3200](#) of the [DAAS Policy and Procedure Manual](#).

These sections are used as guidelines in carrying out responsibilities associated with nutrition, food service, and wellness.

1.3 Regional Map

The map below depicts the counties served within the 8 AAAs in Arizona.

Each region is responsible for compliance with local and County Health Codes. A list of Arizona County Health Code resources can be found in [Chapter 15 of this manual: State and County Health Codes](#).



- ⑦ Region 7 serves the Navajo Nation, which is located in the northeastern corner of the state.
- ⑧ Region 8 serves the Inter Tribal Council of Arizona, Inc. Member tribes are located throughout the state.

2 Nutrition Programs

2.1 Program Information

Through the Older Americans Act (OAA) Nutrition Services, ACL's Administration on Aging (AoA) provides grants to states to support nutrition services for adults aged 60 and older nationwide. Provided by local senior nutrition programs, these services include healthy home-delivered meals and meals served in group settings, such as senior centers and faith-based locations. In addition, the programs provide a range of services including nutrition screening, assessment, education, and counseling. Nutrition services also provide an important link to other supportive in-home and community-based supports such as homemaker and home-health aide services, transportation, physical activity and chronic disease self-management programs, home repair and modification, and falls prevention programs.⁴

DAAS (through contracts with the AAAs) provides nutrition services to older adults to access adequate food and nutrition and increase their ability to live at home in the community. The individuals at highest risk for poor nutrition and the resultant health consequences include those age 85 and older with limited English proficiency, minorities, low-income, living alone, living with a disability particularly one that interferes with their ability to shop and cook for themselves, and having multiple chronic diseases. Adequate nutrition is integral to healthy aging and the prevention or delay of chronic disease and disease-related disabilities.⁵

Congregate nutrition services improve a participant's physical and mental health and prevent more costly interventions. Home-delivered nutrition services enable older adults to avoid or delay costly institutionalization and allow them to stay in their home and community.

The AoA's Senior Nutrition Program specifically provides grants to support nutrition services to adults age 60 and older. The Senior Nutrition Program, authorized under Title III, Grants for State and Community Programs on Aging, and Title VI, Grants for Native Americans, under the Older Americans Act, is intended to improve the dietary intakes of participants and to offer participants opportunities to form new friendships and to create informal support networks. Two of these funded programs are for congregate and home delivered meals (*refer to footnote 4*).

Through additional services, older participants learn to shop, plan, and prepare nutritious meals that are economical and optimize their health and well-being. The congregate meal programs provide older participants with positive social contacts with other seniors at the group meal sites.

4 ACL. *Nutrition Services*.

5 Arizona Department of Economic Security (n.d). *DAAS Policy and Procedure Manual Division of Aging and Adult Services - (Hereafter referred to as DAAS) - Chapter 3000 – Nutrition Services 3200*.

Volunteers and paid staff who deliver meals to homebound participants often spend time with the older adult, helping to decrease their feelings of isolation. These volunteers and paid staff also check on the welfare of the homebound older adult and are encouraged to report any health or other problems that they may note during their visits. In addition to providing nutrition and nutrition-related services, the Senior Nutrition Program provides an important link to other needed supportive in-home and community-based services such as homemaker, home health-aide services, assistive devices, transportation, physical activity programs, and home repair and modification programs (*refer to footnote 4*).

2.2 Congregate Meal Program

The Congregate Meal Program is a service that provides a nutritious meal for an individual in a congregate setting. The AAAs contract with nutrition sites which provide at least one meal in a congregate setting at least once a day, five or more days a week (except in a rural area where such frequency is not feasible, and a lesser frequency is approved by the DES).

Meals provided through the Congregate Meal Program must comply with the current Dietary Guidelines for Americans, which require a minimum of 1/3rd of the current Dietary Reference Intakes (DRI's) as established by the Food and Nutrition Board of the National Research Council of the National Academy of Sciences. These nutrition sites provide for menu planning, meal preparation and service, staff training, nutrition education, and social interaction. (CNG SOW) (*refer to footnote 5*)

In addition to serving healthy meals, the program provides opportunities for social engagement, health-related services such as transportation, health screening and promotion, social service referrals, shopping assistance, volunteer opportunities to the participants, information on healthy aging, all of which contribute to an older individual's overall health and well-being. The Congregate Meal Program serves individuals age 60 and older, and in some cases, their caregivers, spouses, and/or persons with disabilities.

2.3 Eligibility for Congregate Meal Program

Title III, Grants to State and Community Programs on Aging, provides funding for congregate meal programs for individuals who are age 60 or older but may also include:

- The spouse of an individual age 60 or older. The spouse may be of any age;
- An individual under age 60 with a disability who resides in a housing facility occupied primarily by older individuals at which congregate nutrition services are provided;
- An individual under age 60 with a disability who resides at home with and accompanies an older individual who participates in the program;
- A volunteer under age 60 who provides services during the meal hour(s); or

- An individual under age 60 with a disability that does not meet the categories described above. NOTE: Older Americans Act funds cannot be used to provide meals to these individuals.

Efforts should be made to target those eligible individuals with the greatest economic and social need, low income, rural, limited English proficiency, and eligible minorities (*refer to footnote 4*).

American Indians, Alaskan Natives, and Native Hawaiians tend to have lower life expectancies and higher rates of illness at a younger age, therefore, tribal organizations, funded under Title VI, Grants for Native Americans, are given the option of setting the age at which older people can participate in the program.⁶

Title VI of the OAA authorizes funds for supportive and nutrition services provided to older Native Americans. Funds are awarded directly by the Assistant Secretary to Indian tribal organizations, Native Alaskan organizations, and non-profit groups representing Native Hawaiians. To be eligible for funding, a tribal organization must represent at least 50 individuals who are age 60 or older (*refer to footnote 7*).

2.4 Home Delivered Meals

The Home-Delivered Meals Program is a service that provides a nutritious meal to an individual, delivered to their place of residence (HDM SOW).

2.5 Eligibility for Home Delivered Meals

The following individuals are eligible to receive home-delivered meals:

- An individual 60 years of age or older who has functional limitations, as described in 3203.2d of the Aging and Adult Administration Policy and Procedures Manual Chapter 3100-NMHCBS, which restricts their ability to obtain and prepare appropriate meals within their home and has no other meal preparation assistance;
- The spouse or significant other of an eligible individual, regardless of age or condition where receipt of the meal is in the best interest of the home delivered meal participant;
- An individual age 18-59 with a disability who resides with an eligible person and where receipt of the meal is in the best interest of the home delivered meal participant;
- An individual aged 18-59 with a disability, who has functional limitations which restricts their ability to obtain and prepare appropriate meals within their home and has no other meal preparation assistance available (funds other than Older Americans Act must be expended for persons in this category). (*Refer to footnote 5*)

6 ACL (n.d). *Services for Native Americans (OAA Title VI)*.

To be eligible for home-delivered meals, individuals must be assessed as moderately to severely impaired in the following Instrumental Activities of Daily Living (IADL). (*Refer to footnote 6*)

- Shopping or Transportation; and
- Meal preparation

Home-delivered meals are often the first in-home service that an older adult receives, and the program is a primary access point for other home- and community-based services. The program often serves frail, homebound, or isolated individuals who are age 60 and older, and in some cases, their caregivers, and/or persons with disabilities (*Refer to footnote 4*). In Arizona, eligible persons with the greatest economic and/or social needs may be incapacitated or disabled due to accident, illness, or frailty are prioritized. This includes those unable to prepare meals due to their limited mobility, psychological or mental impairment; those unable to safely prepare meals and/or lacking knowledge to select and prepare nourishing and well-balanced meals; and those without resources such as family, friends or other community services to provide them with meals.

Home-delivered meal recipients are encouraged to participate in the meals program at their congregate site to decrease social isolation, if possible. This “social nutrition” approach is based on the premise that older persons with limited mobility, such as those confined to wheelchairs or the blind, should attend the congregate program, at least occasionally.

3 Congregate and Home Delivered Menu Requirements

3.1 Menu

1. Menus must be prepared with input from the participant group, i.e. site council, menu planning sessions, suggestion box and surveys.
2. Menus must be prepared in the dominant language(s) of the participant group.
3. Menu preparation must accommodate ethnic, cultural and religious preferences.
4. Menus must consist of a minimum of a six-week cycle rotation of different food combinations to assure variety of colors, flavors and textures. Cycle menus must run for a maximum of six months before changing. Food items cannot be repeated on two consecutive days or on the same days of consecutive weeks, except with documented preference of the participants receiving the meal, i.e. mashed potatoes two days in a row or every Wednesday.
5. Meals may be prepared and served for persons needing diabetic, renal or restricted sodium diets when feasible, appropriate and cost effective, to meet particular dietary needs. A written approval is a diet order from the participant's physician. Special diet menus must be approved by a Registered Dietitian Nutritionist.
6. Menus must be planned as hot meals. A cold meal may be planned up to 10 times during a six week cycle to add variety to the menu (i.e. chef salad, sub sandwich).
7. Standardized recipes must be used for all recipes involving more than two ingredients to ensure consistency and yield the same number of servings and nutritional value (*see Appendix 39 for template*).
8. Production records are recommended for consistent meal planning and cost control purposes (*see Appendix 38 for template*).
9. Menus must be prepared considering the seasonal availability of foods. Seasonal fruits and vegetables should be used as often as possible.

Fruits and vegetables available yearly in Arizona include: citrus, melons, dry beans, peppers, cauliflower, broccoli, cabbage, cucumbers, carrots, garlic, dry onions, green onions, potatoes, radishes, squash, and tomatoes.

Seasonal foods available in Arizona include: apples, peaches, grapes, fresh beans, peas, asparagus, chili peppers, cilantro, sweet corn, greens, turnips, lettuce, spinach, okra, pumpkins, berries, and watermelon.
10. Menus, as served, must be retained by the nutrition provider for monitoring one year after the meals have been served. (*Refer to footnote 5*).

3.2 Meal Pattern

1. Menus must be planned using a standardized meal planner equivalent to the recommended menu pattern. Following the recommended meal pattern will help to ensure the menu meets the Dietary Guidelines for Americans (DGAs). See Table 1 below for the recommended meal pattern for lunch.

Protein	2-3 ounces
Vegetables	2 (½ cup) servings (subgroups referenced below)
Grains	2 Servings/1 oz equivalent (1 as whole grain)
Fruit	1 serving (¾ cup)
Milk	2%, 1% or skim, 8 ounces
Fat	1 serving (1-2.5 tsp monounsaturated oil or 1 tsp of solid fat)
*Dessert	*Extra Item, 2 Times/Week (optional)

2. Fruit may be fresh, frozen, or canned. If canned fruit is used, it must not be packed in heavy syrup and should instead be packed in water or in its own juice.
3. Full strength (100%) vegetable or fruit juices may be substituted occasionally, particularly when needed to meet vegetable or fruit requirements. Partial strength or simulated fruit juices or drinks, even when fortified, may not count as a vitamin or fruit source.
4. Following the guidelines at the reference 2,000-calorie level, the following fruit and vegetable subgroups should be served weekly.

Dark green vegetables	2-3 servings/week
Orange vegetables	2 servings /week
Legumes (dried beans, peas)	2 servings/week
Starchy vegetables	2-3 servings /week
Other vegetables	2-3 servings /week (Can use vegetable blends)
Fruits	5 servings/week (½ cup portion)

5. Based on the DGA's amount for a reference 2,000 calorie diet; each meal must contain at least 2-ounce equivalents of grain products, at least one ounce must be whole grain.
6. Based on the United States Department of Agriculture (USDA) Food Guide, for a 2,000 calorie diet, each meal must contain:
 - At least 8 ounces (1 cup or ½ pint) of fortified fat-free skim or low-fat milk or the equivalent such as yogurt, frozen yogurts, dairy desserts, cheeses (except

- cream cheese), including lactose-free and lactose-reduced products.
- All milk shall contain the equivalent of 5,000 IU of vitamin A and 400 IU of vitamin D per quart.
 - Appendix 10 illustrates equivalent dairy food sources of calcium ranked by milligrams of calcium per standard amount and calories in the standard amount.
 - All milk products must be pasteurized and comply with grade A standards as specified in the law.
 - Powdered milk is acceptable for use when added to a recipe during cooking. Reconstituted powdered milk is acceptable as a beverage when reconstituted at a temperature of 40 degrees F or lower, in single portions for immediate consumption, unless otherwise prohibited by the authority having jurisdiction.
 - For a kosher meal, it is recommended that 8 ounces (8 oz.) of milk or any of the above substitutions be served as a snack within the culturally accepted time-period.⁷
7. Each meal may contain between 2 – 4 tsp. of oil in the preparation of foods and may include one teaspoon of solid fat in the form of fortified margarine or butter, if necessary, to increase the palatability and acceptability of the meal or included as part of the discretionary calories. Per the DGAs, it is recommended that a mono- or polyunsaturated fat be used such as olive, canola or avocado oil or spreads.
8. Each meal may contain between 90 and 240 additional discretionary calories. Discretionary calories are calories from sources that are not part of the meal pattern. The sources of these calories can be derived from between 1 – 2 ½ tsp. solid fats and/or 2 ½ - 6 tsp. sugar daily.
- *Discretionary calorie desserts should be limited to once or twice a week. (Note: Desserts cannot replace the fruit requirement with one exception);
 - *Incorporating a ¾ cup fruit in a dessert recipe such as apple crisp or strawberry shortcake may be counted as a full serving of fruit.⁸
9. Salad Bars are an excellent way to increase fruit and vegetable consumption among older adults. According to the DGAs, older adults consume only 4.5 servings of the 6 recommended servings of fruits and vegetables per day. Salad bars offer a plentiful variety of fruits and vegetables, and providing food choice has been shown to increase consumption of these nutrient-dense foods.

Every effort should be made to keep foods at the proper holding temperatures. Cold food should be kept on ice or in a cooler and hot foods should be kept warm. Congregate meal sites should contact their health department to determine additional requirements for salad bars.

7 *Dietary Guidelines for Americans*, - Hereafter referred to as DGA - 2020-2025 (p.33).

8 *DGA, 2020-2025. Executive Summary, 4th Guideline.* (2020, December).

Salad bars can be used to meet the meal pattern in a variety of ways including:

- a. Fruit and Vegetable Bar: participants can choose from a variety of side items to meet the meal pattern requirements.
- b. Full Salad Bar: entrees and side items are offered exclusively on the salad bar to fully meet the meal pattern requirements.

For additional information, review the “Salad Bar Guide” at the Nutrition and Aging Resource Center at: <https://acl.gov/senior-nutrition/DGAtoolkit> (refer to footnote 4).

Optional Beverages

Hydration is of particular concern for older adults. Coffee, tea, decaffeinated and sugar-free flavored beverages may be served as desired. (Note: Eight ounces (8 oz.) of milk is required as part of the meal and must not be considered an optional beverage. Fruit or vegetable juices counted as a fruit or vegetable serving must not be considered as an optional beverage). Water should be available to participants of congregate and home delivered meal programs.⁹

Vitamin/Mineral and Dietary Supplements

Participants screened to be at high nutritional risk may benefit from a multi vitamin/mineral supplement. Participants should seek medical advice regarding vitamin/mineral supplements. If appropriate, sites may consider providing a fluid supplement such as instant breakfast packets, Ensure, Boost etc. as a supplement, not as a meal replacement to nutritionally high-risk participants (refer to footnote 9).

3.3 Dietary Reference Intakes (DRI) and Menu Requirement Epidemiology

Dietary Reference Intakes (DRI) values have been mainly used by scientists and nutrition professionals who work in research or academic settings. Nutrition professionals who develop menus that must meet certain nutritional requirements, such as elderly meal programs, also need to become familiar with the DRIs. The DRIs establish the nutrient levels that are now required under the Older Americans Act.

From 1941 to 1989, the Recommended Dietary Allowances (RDAs) were used to evaluate and plan menus that would meet the nutrient requirements of various groups. They were also used to interpret food consumption records of populations and establish guidelines for nutrition labeling. The RDAs were often used to evaluate the diets of individuals but were not intended for that purpose.¹⁰

In the early 1990s, the Food and Nutrition Board, began revising the RDAs, creating nutrient reference values - the DRIs. In 1997, the creation of the DRIs by the Food and

9 DGA, 2020-2025. (2020, December). Dietary Guidelines.

10 National Institutes of Health - Hereafter referred to as NIH, Office of Dietary Supplements (n.d.). *Nutrient Recommendations and Databases*.

Nutrition Board of the National Academy changed the way nutritionists and nutrition scientists evaluate the diets of healthy people. The new DRI values were released in stages between 1997 and 2005.

There are four types of DRI reference values:

- The Estimated Average Requirement (EAR);
- The Recommended Dietary Allowance (RDA);
- The Adequate Intake (AI); and
- The Tolerable Upper Intake Level (UL).

The primary goal of having new dietary reference values was to prevent nutrient deficiencies (same as the RDA's), and the addition of reducing the risk of chronic diseases such as osteoporosis, cancer, and cardiovascular disease. (*Refer to footnote 10*).

3.4 Nutrient Requirements

1. Each meal under Title III must contain at **least** one-third (1/3) of the current Dietary Reference Intakes (DRI's). The following nutrients will be targeted for nutrient analysis: Calories; protein; fat (including saturated, monounsaturated, polyunsaturated, and trans-fat); calcium; magnesium; sodium; potassium; fiber; zinc; vitamin B6; vitamin B12; folate; vitamin C; vitamin A; vitamin D. (*Refer to footnote 5*).
2. Based on the DRI's referenced 51+ year old male, a one-week menu cycle must contain an average of 650 calories per meal with a minimum of 500 calories and a maximum of 800 calories.
3. Based on the DRI referenced 51+ year old male, each meal must contain less than 30% total fat, 10% or less of saturated fat, and 0% trans-fat.
4. Sodium content per meal should be limited to 500mg to 800mg (occasionally may be 1000mg).
5. Menus must provide an average of 10 grams fiber for one meal. (*Refer to footnote 10*).

3.5 Nutrient Needs for Older Adults

Older adults are at greater risk for chronic disease including cardiovascular disease, cancer, bone and muscle loss, and obesity. Due to a decrease in physical activity and lower muscle mass, older adults typically have lower caloric needs. However, they are at greater risk for nutrient deficiencies due to chronic conditions that cause malabsorption, medicine-nutrient interactions, and changes in body composition. Because of these

factors, it is important that older adults eat more nutrient-dense food.¹¹

Inadequate intake of nutrient-dense foods have caused underconsumption of some nutrients. For the general U.S. population, nutrients of concern include calcium, vitamin D, potassium and fiber. Older adults have special nutrient considerations due to underconsumption of certain foods at this age and/or malabsorption of certain nutrients. These include B12, potassium and protein. Adequate hydration is also of additional concern.¹²

For the purposes of the Congregate Meal Program and Home Delivered Meals, the following nutrients will be targeted for nutrient analysis: Calories; protein; fat (including saturated, monounsaturated, polyunsaturated, and trans-fat); calcium; magnesium; sodium; potassium; fiber; zinc; vitamin B6; vitamin B12; folate; vitamin C; vitamin A; vitamin D.

Planning meals to meet the DGAs and the recommended meal pattern will help to ensure the nutrient needs of older adults are met.

Protein

Adequate protein intake is important to prevent the loss of muscle tissue that naturally declines with age. Protein is necessary to rebuild muscle tissue that is lost daily.

According to the DGAs, approximately 50% of women and 30% of men aged 71 or older do not consume enough protein. Protein may come from animal sources such as beef, chicken, turkey, pork, fish, seafood, eggs, and dairy or plant-based sources such as nuts, seeds, beans, legumes, and soy.

According to the DGAs, older adults receive the majority of their protein from meat, poultry and eggs. However, seafood, dairy, fortified soy alternatives, beans, peas and lentils are under consumed. Adding more of these foods to the diet may be beneficial, not only for the protein content, but for the additional nutrients these foods provide.¹³

Fiber

Dietary fiber is the parts of plant food that your body cannot digest or absorb. The recommended dietary fiber intake is 14 grams per 1,000 calories consumed. Increasing the intake of fiber-rich foods will provide significant health benefits, including decreased risk of coronary heart disease and improvement in digestion and intestinal motility.¹⁴

Since constipation may affect up to 20 percent of people over 65 years of age, older adults should choose to consume foods rich in dietary fiber. In addition to fruits and vegetables, whole grains are an important source of fiber and other nutrients.

11 *DGA, 2020-2025* (p. 123). (2020, December). Dietary Guidelines.

12 *DGA, 2020-2025* (pp. 128-129). (2020, December). Dietary Guidelines.

13 *DGA, 2020-2025* (p. 128). (2020, December). Dietary Guidelines.

14 *DGA, 2020-2025* (p. 133 - Appendix 1, Table A1-2). (2020, December). Dietary Guidelines.

In the fruit group, consumption of whole fruits (fresh, frozen, canned, dried) rather than fruit juice for the majority of the total daily amount, is suggested to ensure adequate fiber intake.¹⁵

Consuming at least 3 ounce-equivalents of whole grains per day can reduce the risk of several chronic diseases and may help with weight maintenance. Thus, daily intake of at least 3 ounce-equivalents of whole grains per day is recommended by substituting whole grains for refined grains at all calorie levels, for all age groups. For purposes of the Congregate Meal Program and Home Delivered Meals, at least half of the grains served should be whole-grain. All grain servings can be whole-grain; however, it is advisable to include some folate-fortified products, such as folate-fortified whole-grain cereals, in these whole-grain choices. See Appendix 18 - “Whole Grain Tips for Seniors” for ways to incorporate whole grains in the menu and the lives of older adults.¹⁶

Legumes—such as dried beans and peas—are especially rich in fiber and should be consumed several times per week. They are considered part of both the vegetable group and the meat and beans group, as they contain nutrients found in each of these food groups. See Appendix 17 - Food Sources of Dietary Fiber for dietary sources of fiber.¹⁷

B12

Vitamin B12 helps to keep the body’s blood and nerve cells healthy. It also plays a role in DNA formation and helps to prevent megaloblastic anemia. Absorption of B12 tends to decrease with age. Additionally, some medications interact with the absorption of this key nutrient. Therefore, consumption of this vitamin is of concern for older adults. Good food sources of B12 include meat, fish, milk, and fortified foods such as cereal. See Appendix 16 for food sources of vitamin B12.¹⁸

Vitamin A

Vitamin A is a fat-soluble vitamin found in a variety of foods. Vitamin A is important for older adults because of its role in healthy vision, boosting the immune system, and ensuring proper function of vital organs including the heart, lungs and kidneys. Low intakes of vitamin A (as carotenoids) tend to reflect low dietary intakes of fruits and vegetables.¹⁹ See Appendix 7 for good dietary sources of vitamin A.

15 DGA, 2020-2025 (p. 101). (2020, December). Dietary Guidelines.

16 Oldways Whole Grains Council (n.d) - Hereafter referred to as OWGC. *Definition of a Whole Grain*.

17 DGA, 2020-2025 (p. 31). (2020, December). Dietary Guidelines.

18 DGA, 2020-2025 (p. 128). (2020, December). Dietary Guidelines.

19 NIH, Office of Dietary Supplements (n.d.). *Vitamin A and Carotenoids*.

Vitamin C

Vitamin C is a water-soluble vitamin found in many fruits, vegetables and fortified products. It is an antioxidant that helps to protect the body from disease. It plays a role in collagen production which strengthens skin and provides elasticity and hydration. Vitamin C also increases the absorption of plant based iron.²⁰ See Appendix 8 for dietary sources of vitamin C.

Vitamin E

Vitamin E is a fat-soluble vitamin that acts as an antioxidant in the body, widens blood vessels, prevents clotting within blood vessels, and boosts the immune system. Vitamin E-rich foods include vegetable oils, nuts, green vegetables like spinach and broccoli and some fortified foods.²¹ See Appendix 12 for dietary sources of vitamin E.

Calcium

Calcium is a mineral that is necessary for the body to make strong bones and teeth. Calcium is found in dairy foods but can also be found in non-dairy foods as well. Calcium is also needed for muscles to move and for nerves to send messages to the brain and throughout the body. It is important for older adults to consume adequate amounts of calcium along with vitamin D to prevent osteoporosis and osteopenia.²² See Appendix 10 for dairy sources of calcium and Appendix 11 for non-dairy sources of calcium.

Vitamin D

Vitamin D is a nutrient of concern for the general population, as low intakes have been linked to health problems. Vitamin D is needed for the absorption of calcium and is an important nutrient for maintaining strong bones. Vitamin D is also needed for nerves to function correctly, for muscles to move, and for the immune system to function properly. The body makes vitamin D from sunlight. However, some people are not exposed to enough sunlight which may be especially true for older adults. Additionally, some people do not metabolize vitamin D well. Very few foods naturally contain vitamin D, but sources that do include fatty fish, egg yolks, beef liver, cheese and mushrooms. Most of the vitamin D we consume comes from fortified products like cereals, juice, milk and alternatives like soy and almond milk.²³ See Appendix 44 for dietary sources of vitamin D.

Magnesium

Magnesium is an important nutrient for the body in regulating nerve and muscle function, blood sugar, blood pressure and making protein, bone, and DNA. Magnesium is found in legumes, nuts, seeds, green leafy vegetables, milk, yogurt and other dairy products and fortified products.²⁴ See Appendix 13 for dietary sources of magnesium.

20 NIH, Office of Dietary Supplements (n.d.). *Vitamin C*.

21 NIH, Office of Dietary Supplements (n.d.). *Vitamin E*.

22 NIH, Office of Dietary Supplements (n.d.). *Calcium*.

23 NIH, Office of Dietary Supplements (n.d.). *Vitamin D*.

24 NIH, Office of Dietary Supplements (n.d.). *Magnesium*.

Potassium

Potassium is a mineral with many important functions in the body including kidney and heart function, muscle contraction and nerve transmission. Potassium is found in a variety of foods including leafy greens, banana, cantaloupe, oranges, avocado, potatoes, beans, nuts, lentils and tomatoes. Consuming a diet rich in potassium helps to lower blood pressure. A potassium-rich diet blunts the effects of salt on blood pressure, may reduce the risk of developing kidney stones, and possibly decrease bone loss. To meet the recommended potassium intake levels, potassium-rich fruits and vegetables must be incorporated into the menu. Caution should be exercised by those with kidney disease as they may be following a lower potassium diet.²⁵ See Appendix 9 for dietary sources of potassium.

3.6 Additional Meal Planning Considerations for Older Adults:

Fruits and Vegetables

A diet rich in fruits and vegetables has many positive health effects including lowering blood pressure, reducing the risk of heart disease and stroke, decreasing the risk of certain cancers, lowering the risk of both eye and digestive problems, improving blood sugar, and helping to control appetite.²⁶

According to a 2019 CDC study, approximately only 1 in 10 adults meet the recommended fruit and vegetable intake. Therefore, it is important to provide a variety of fruits and vegetables in various forms to encourage consumption at congregate meal sites.²⁷ Fruits and vegetables provide fiber and a variety of micronutrients.

- Fruit - Consumption of a variety of whole fruits (fresh, frozen, canned, dried) rather than fruit juice for the majority of the total daily amount is suggested to ensure adequate fiber intake with minimal added sugar.
- Vegetables - Weekly intake of specific amounts of the following vegetable subgroups is recommended for adequate nutrient intake:
 - Dark green (broccoli, spinach, romaine lettuce, kale)
 - Red/orange (carrots, orange peppers, tomatoes);
 - Legumes (dried beans, peas);
 - Starchy (corn, potatoes, jicama);
 - Other vegetables (artichokes, asparagus, beets)

The key recommendation from the current *Dietary Guidelines* includes consuming a sufficient amount of fruits and vegetables while staying within energy needs. A sample list of vegetables in each subgroup is included in Appendix 1 - USDA Daily Meal Plan.

25 NIH, Office of Dietary Supplements (n.d.). *Potassium*.

26 Harvard School of Public Health, The Nutrition Source (September 18, 2012). *Vegetables and Fruits*.

27 Centers for Disease Control and Prevention - Hereafter referred to as CDC. *Adults Meeting Fruit and Vegetable Intake Recommendations — United States, 2019*.

Whole Grains

In addition to fruits and vegetables, whole grains are an important source of fiber and other nutrients. Whole grains, as well as foods made from them, consist of the entire grain seed, usually called the kernel. The kernel is made of three components—the bran, the germ, and the endosperm. Kernels that have been cracked, crushed, or flaked are still considered whole grain.

Refined grains are whole grains that have gone through the grain-refining process that cause most of the bran and some of the germ to be removed, resulting in the loss of dietary fiber, vitamins and minerals. Because refined grains often contain less nutrient value, at least 50% of the grains served in the Home Delivered Meal or Congregate Meal Programs must be whole grains. For guidance in determining whether a product is a whole grain, refer to Appendix 18 - “Whole Grain Tips for Seniors”. (*Refer to footnote 16*).

Milk and Other Dairy Foods

Approximately 90% of the U.S. population does not consume the daily dairy recommendations. Consumption of dairy products has been associated with improved diet quality and adequacy of intake of many nutrients, including calcium, potassium, magnesium, zinc, iron, riboflavin, vitamin A, folate, and vitamin D. The intake of milk and other dairy products is especially important to bone health.²⁸

The majority of dairy consumed in the U.S. contains higher amounts of sodium (cheese), saturated fat (whole fat milk and yogurt) and sugars (flavored milk, ice cream). It is important to consume dairy that is lower in fat, sodium and sugar. There are many fat-free and low-fat choices without added sugars that are available and consistent with an overall healthy dietary plan.

Lactose intolerance becomes more prevalent in individuals as they age. If a person wants to consider milk alternatives because of lactose intolerance, the most reliable and easiest way to derive the health benefits associated with milk and milk product consumption is to choose alternatives within the milk food group, such as yogurt or lactose-free milk, or to consume the enzyme lactase prior to the consumption of milk products.

For individuals who choose to or must avoid all milk products (e.g. individuals with allergies, vegans, cultural reasons, etc.), non-dairy, calcium-containing alternatives may be selected to help meet calcium needs, such as calcium-fortified soy beverages. Appendix 11 - Non-dairy Food Sources of Calcium contains a list of non-dairy calcium containing foods and beverages.²⁹

Since milk and milk products provide more than 70% of the calcium consumed by Americans, guidance on other choices of dietary calcium is needed for those who do

28 DGA, 2020-2025 (Chpt.1, p. 33). (2020, December). Dietary Guidelines.

29 DGA (n.d.). *Food Sources of Calcium*.

not consume the recommended amount of milk products. Individuals who avoid all milk products need to choose rich sources of the nutrients provided by milk, including potassium, vitamin A, and magnesium in addition to calcium and vitamin D.³⁰

Home Delivered Meals and Congregate Meals are required to offer 8 ounces of milk. AAAs may choose to offer alternative milks in addition to dairy milk that have been fortified with similar nutrients.

Hydration

Many older adults are at risk for dehydration. The thirst sensation tends to decline with age. Additionally, due to concerns with bladder control, some older adults purposefully drink less. According to the DGAs, adults aged 60 and older drink about 2 cups or less of fluids per day, most of which is water. It is important that older adults stay hydrated to aid in kidney function, digestion, and absorption of nutrients. In addition to water, sources of fluid intake could include 100% fruit juice, milk or a milk alternative. Sweetened beverages should be avoided whenever possible as they contribute little nutrient value and added sugar and calories.³¹ There is a wide range of variables to determine the amount of fluid a person should consume daily. Older adults should consult with their health care provider to determine daily fluid recommendations. Congregate meal sites should ensure access to water and other beverages to help encourage fluid intake.

Fats, Oil, Margarine, and Butter

Fats and oils are part of a healthy diet, but the type of fat makes a difference to heart health, and the total amount of fat consumed is also important. Fats supply energy and essential fatty acids and serve as a carrier for the absorption of the fat-soluble vitamins A, D, E, and K and carotenoids. Fats serve as building blocks of membranes and play a key regulatory role in numerous biological functions.

Dietary fat is found in foods derived from both plants and animals. The recommended total fat intake is between 20 and 35 percent of calories for adults. High intake of saturated fats, trans fats, and cholesterol increases the risk of unhealthy blood lipid levels, which, in turn, may increase the risk of coronary heart disease. A low intake of fats and oils (less than 20 percent of calories) increases the risk of inadequate intakes of vitamin E and of essential fatty acids and may contribute to unfavorable changes in high-density lipoprotein (HDL), cholesterol and triglycerides.

The current Dietary Guidelines recommend that Americans consume the majority of their fat from polyunsaturated or monounsaturated sources such as canola, olive, peanut, safflower, soybean and sunflower oil. It is recommended that saturated fat contributes to less than 10% of total calories. Saturated fat is found in animal products, high fat dairy, butter, shortening and coconut or palm oils.³²

30 DGA, 2020-2025 (p 101). (2020, December). Dietary Guidelines.

31 DGA, 2020-2025 (p. 129). (2020, December). Dietary Guidelines.

32 DGA, 2020-2025 (p. 44). (2020, December). Dietary Guidelines.

3.7 Dietary Guidelines for Americans 2020-2025 Summary

Excerpt from the Dietary Guidelines for Americans 2020-2025 (DGAs 2020-2025):

The foods and beverages that people consume have a profound impact on their health. The scientific connection between food and health has been well documented for many decades, with substantial evidence showing that healthy dietary patterns can help people achieve and maintain good health and reduce the risk of chronic disease throughout all stages of the lifespan. Yet, Federal data show that from the first edition of the Dietary Guidelines for Americans in 1980 through today, Americans have fallen far short of meeting its recommendations, and diet-related chronic disease rates have risen to pervasive levels and continue to be a major public health concern. The Dietary Guidelines is an important part of a complex, multifaceted approach to promote health and reduce chronic disease risk. The Dietary Guidelines provides science-based advice on what to eat and drink to promote health, help reduce risk of chronic disease, and meet nutrient needs. The Dietary Guidelines is the foundation of Federal food, nutrition, and health policies and programs. An important audience is health professionals and nutrition program administrators who work with the general public to help them consume a healthy and nutritionally adequate diet and establish policies and services to support these efforts. Comprehensive, coordinated strategies built on the science-based foundation of the Dietary Guidelines—and a commitment to drive these strategies over time across sectors and settings—can help all Americans consume healthy dietary patterns, achieve and maintain good health, and reduce the risk of chronic diseases.

Grounded in Science and Focused on Public Health

The USDA and of Health and Human Services (HHS) update the Dietary Guidelines at least every 5 years, based on the current science. A fundamental premise of the Dietary Guidelines is that everyone, no matter their age, race, or ethnicity, economic circumstances, or health status, can benefit from shifting food and beverage choices to better support healthy dietary patterns.

To make sure that the dietary advice provided in the Dietary Guidelines is aimed at improving public health, the science used to inform the Guidelines has examined diet through a lens of health promotion and disease prevention and considered various segments of the United States population, including ethnic populations who have disproportionately and/or historically been affected by diet-related disparities. This means that 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.

Over time, eating patterns in the United States have remained far below Dietary Guidelines recommendations (Figure I-1). Concurrently, it has become increasingly clear that diet-related chronic diseases, such as cardiovascular disease, type 2 diabetes, obesity, liver disease, some types of cancer, and dental caries, pose a major public health problem for Americans. Today, 60 percent of adults have one or more diet-

related chronic diseases (Table I-1). Given its aim to prevent further disease incidence by promoting health and reducing chronic disease risk, the Dietary Guidelines focuses on the general public, including healthy individuals, as well as those with overweight or obesity and those who are at risk of chronic disease. The importance of following the Dietary Guidelines across all life stages has been brought into focus even more with the emergence of COVID-19, as people living with diet-related chronic conditions and diseases are at an increased risk of severe illness from the novel coronavirus.

Grounded in the current body of scientific evidence on diet and health that is relevant to all Americans, the Dietary Guidelines is a critically important tool for health professionals, policymakers, and many other professionals. It is designed to help people make food and beverage choices throughout life that are enjoyable and affordable and that also promote health and help prevent chronic disease.

A Spotlight on Dietary Patterns

Although many of its recommendations have remained relatively consistent over time, the Dietary Guidelines has evolved as scientific knowledge has grown. Early Dietary Guidelines editions used evidence that examined the relationships between individual nutrients, foods, and food groups and health outcomes. In recent years, researchers, public health experts, and registered dietitians have acknowledged that nutrients and foods are not consumed in isolation. Rather, people consume them in various combinations over time—a dietary pattern—and these foods and beverages act synergistically to affect health. The 2015-2020 Dietary Guidelines put this understanding into action by focusing its recommendations on consuming a healthy dietary pattern. The 2020-2025 Dietary Guidelines carries forward this emphasis on the importance of a healthy dietary pattern as a whole—rather than on individual nutrients or foods in isolation. Serving as a framework, the Guidelines’ dietary patterns approach enables policymakers, programs, and health professionals to help people personalize their food and beverage choices to accommodate their wants and needs, food preferences, cultural traditions and customs, and budgetary considerations.

Healthy Dietary Patterns at Every Life Stage

The 2020-2025 Dietary Guidelines takes the dietary patterns approach one step further by focusing on the importance of encouraging healthy dietary patterns at every stage of life, from birth to older adulthood. It provides recommendations for healthy dietary patterns by life stage, identifying needs specific to each life stage and considering healthy dietary pattern characteristics that should be carried forward into the next stage of life. And, for the first time since the 1985 edition, this edition of the Dietary Guidelines includes recommendations for infants and toddlers as well as continuing the emphasis on healthy dietary patterns during pregnancy and lactation. This approach recognizes that each life stage is distinct—nutrient needs vary over the lifespan and each life stage has unique implications for food and beverage choices and disease risk. At the same time, it recognizes an important continuity. Because early food preferences

influence later food choices, establishing a healthy dietary pattern early in life may have a beneficial impact on health promotion and disease prevention over the course of decades.

The Guidelines:

The 2020-2025 Dietary Guidelines provides four overarching Guidelines that encourage healthy eating patterns at each stage of life and recognize that individuals will need to make shifts in their food and beverage choices to achieve a healthy pattern. The Guidelines also explicitly emphasize that a healthy dietary pattern is not a rigid prescription. Rather, the Guidelines are a customizable framework of core elements within which individuals make tailored and affordable choices that meet their personal, cultural, and traditional preferences. Several examples of healthy dietary patterns that translate and integrate the recommendations in overall healthy ways to eat are provided. The Guidelines are supported by Key Recommendations that provide further guidance on healthy eating across the lifespan.

For most individuals, no matter their age or health status, achieving a healthy dietary pattern will require changes in food and beverage choices. Some of these changes can be accomplished by making simple substitutions, while others will require greater effort to accomplish. This edition of the Dietary Guidelines presents overall guidance on choosing nutrient-dense foods and beverages in place of less healthy choices and also discusses special nutrition considerations for individuals at each life stage—infants and toddlers, children and adolescents, adults, women who are pregnant or lactating, and older adults.

Although individuals ultimately decide what and how much to consume, their personal relationships; the settings in which they live, learn, work, play, and gather; and other contextual factors—including their ability to consistently access healthy and affordable food—strongly influence their choices. Health professionals, communities, businesses and industries, organizations, government, and other segments of society all have a role to play in supporting individuals and families in making choices that align with the Dietary Guidelines and ensuring that all people have access to a healthy and affordable food supply. Resources, including Federal programs that support households, regardless of size and make-up, in choosing a healthy diet and improving access to healthy food, are highlighted throughout this edition of the Dietary Guidelines for Americans (refer to footnote 9).

Key Recommendations

- **Follow a healthy dietary pattern at every life stage.**
At every life stage—infancy, toddlerhood, childhood, adolescence, adulthood, pregnancy, lactation, and older adulthood—it is never too early or too late to eat healthfully.
 - *For about the first 6 months of life, exclusively feed infants human milk.*

Continue to feed infants human milk through at least the first year of life, and longer if desired. Feed infants iron-fortified infant formula during the first year of life when human milk is unavailable. Provide infants with supplemental vitamin D beginning soon after birth.

- *At about 6 months, introduce infants to nutrient-dense complementary foods. Introduce infants to potentially allergenic foods along with other complementary foods. Encourage infants and toddlers to consume a variety of foods from all food groups. Include foods rich in iron and zinc, particularly for infants fed human milk.*
- *From 12 months through older adulthood, follow a healthy dietary pattern across the lifespan to meet nutrient needs, help achieve a healthy body weight, and reduce the risk of chronic disease.*

- **Customize and enjoy nutrient-dense food and beverage choices to reflect personal preferences, cultural traditions, and budgetary considerations.**

A healthy dietary pattern can benefit all individuals regardless of age, race, or ethnicity, or current health status. The Dietary Guidelines provides a framework intended to be customized to individual needs and preferences, as well as the foodways of the diverse cultures in the United States.

- **Focus on meeting food group needs with nutrient-dense foods and beverages, and stay within calorie limits.**

An underlying premise of the Dietary Guidelines is that nutritional needs should be met primarily from foods and beverages—specifically, nutrient-dense foods and beverages. Nutrient-dense foods provide vitamins, minerals, and other health-promoting components and have no or little added sugars, saturated fat, and sodium. A healthy dietary pattern consists of nutrient-dense forms of foods and beverages across all food groups, in recommended amounts, and within calorie limits. The core elements that make up a healthy dietary pattern include:

- **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 which 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

- **Limit foods and beverages higher in added sugars, saturated fat, and sodium, and limit alcoholic beverages.**

At every life stage, meeting food group recommendations—even with nutrient-dense choices—requires most of a person’s daily calorie needs and sodium

limits. A healthy dietary pattern doesn't have much room for extra added sugars, saturated fat, or sodium—or for alcoholic beverages. A small amount of added sugars, saturated fat, or sodium can be added to nutrient-dense foods and beverages to help meet food group recommendations, but foods and beverages high in these components should be limited. Limits are:

- **Added sugars**—*Less than 10 percent of calories per day starting at age 2. Avoid foods and beverages with added sugars for those younger than age 2.*
- **Saturated fat**—*Less than 10 percent of calories per day starting at age 2.*
- **Sodium**—*Less than 2,300 milligrams per day—and even less for children younger than age 14.*
- **Alcoholic beverages**—*Adults of legal drinking age can choose not to drink, or to drink in moderation by limiting intake to 2 drinks or less in a day for men and 1 drink or less in a day for women, when alcohol is consumed. Drinking less is better for health than drinking more. There are some adults who should not drink alcohol, such as women who are pregnant (refer to footnote 9).*

Additional information may be found at the [Dietary Guidelines for Americans website](#).

4 Menu Approval and Nutritional Analysis

4.1 Menu Approval

The Registered Dietitian Nutritionist (RDN), Nutrition and Diet Technology Registered (NDTR) or Certified Dietary Manager (CDM) is responsible for reviewing and approving all menus to ensure they comply the following contractor service requirements:

- Each meal contains at least $\frac{1}{3}$ of the current DRIs;
- Follows the recommended meal pattern;
- Meets the most current edition of the Dietary Guidelines for Americans.³³

The Scopes of Work require that cycle menus be developed every 6 months and that during any 6-month period, there must be at least 6 weeks (or more) worth of menus within the cycle. Menus must be prepared as written and approved. Menus, as served, are required to be maintained on file for one year.

The Registered Dietitian, Nutritionist, Registered Dietetic Technician, or Certified Dietary Manager will verify the above referenced nutrition requirements by computerized nutritional analysis of at least one meal per week of the menu cycle and adherence to menu requirements in the Nutrition, Food Service and Wellness Manual. Each meal must meet a minimum of 33 $\frac{1}{3}$ % of the Dietary Reference Intakes, for each meal provided per day. Menus shall meet the recommendations from the current Dietary Guidelines for each meal served.³⁴

4.2 Menu Analysis

Meal patterns can be used efficiently as a menu planning tool; however, they do not always ensure that DRI requirements are met for protein, fat, fiber, calories or other micronutrients. To ensure nutrient requirements are met, a nutrient analysis must be conducted and signed by the person with the credentials to approve menus as discussed in 4.1.

The targeted nutrients for analysis should include: Calories; protein; fat (including saturated, monounsaturated, polyunsaturated, and trans-fat); calcium; magnesium; sodium; potassium; fiber; zinc; vitamin B6; vitamin B12; folate; vitamin C; vitamin A; vitamin D as these are nutrients of focus for older Americans according to the DGAs 2022-2025 (*refer to footnote 9*).

4.3 Holiday Meals

During holidays, a local service provider may decide to serve an alternative meal. The alternative holiday meal must still follow the recommended meal pattern and aim to

33 DAAS (Section 3204.2).

34 DAAS (Section 3204.2 (A),(B) and (C)).

provide $\frac{1}{3}$ of the DRI's. Holiday meals should be approved by the RDN, CDM or NDTR prior to serving and should be communicated with participants. Holiday meals are not considered menu substitutions and can be approved when the six-week cycle is approved every 6 months.³⁵

4.4 Menu Substitutions

Menus shall be prepared as written. Substitutions, which must be made because of a temporary inability to obtain, prepare or serve certain foods, must be selected from the same food group and meet minimum serving size requirements. Every attempt must be made to substitute fruits and vegetables with like items or from the same subgroup, i.e., $\frac{1}{2}$ cup red/orange vegetable (carrots) for $\frac{1}{2}$ cup red/orange vegetable (tomato).

Unless pre-approved, all substitutions that a local service provider is aware of one week or more prior to the day of service, must be approved by an RDN, NDTR or CDM prior to being served.

To decrease administrative burden, some menu items that can be substituted within the same category have been **pre-approved** and may be substituted without further RDN, NDTR or CDM signature.

The following sections list pre-approved menu substitutions. These are pre-approved IF they are substituted within the same category, in the same serving size, and IF there is a temporary inability to obtain, prepare or serve certain foods.

³⁵ DAAS Section 3204.2(C).

Vegetables (must be substituted within the same subgroup):

Dark Green	Red/Orange	Beans and Peas (Legumes)	Starchy	Other
<ul style="list-style-type: none"> • Arugula • Amaranth leaves • Basil • Beet greens • Bitter melon leaves • Bok choy • Broccoli • Broccoli rabe (rapini) • Butterhead lettuce • Cabbage, Chinese or celery • Chard • Cham Namul • Chrysanthemum leaves • Chicory • Cilantro • Collard greens • Cress • Dandelion greens • Endive • Escarole • Fiddleheads • Grape leaves • Kale • Lambsquarters • Mesclun • Mustard greens • Nettles • Parsley • Poke greens • Red leaf lettuce • Romaine lettuce • Spinach • Swiss chard • Taro leaves • Turnip greens • Watercress 	<ul style="list-style-type: none"> • Calabaza • Carrots • Chili peppers (red) • Orange peppers • Pimientos • Pumpkin • Red peppers • salsa (all vegetables) • Sweet potatoes/yams • Tomatoes • Tomato juice (100% juice) • Winter squash (acorn, butternut, Hubbard, Kabocha) 	<ul style="list-style-type: none"> • Bayo beans • Black beans • Black-eyed peas (mature, dry) • Brown beans • Cowpeas • Fava beans • Garbanzo beans (chickpeas) • Great Northern beans • Kidney beans • Lentils • Lima beans, mature • Mung beans • Navy beans • Pigeon peas • Pink beans • Pinto beans • Red beans • Refried beans • Soybeans/ edamame • Split peas • White beans 	<ul style="list-style-type: none"> • Black-eyed peas, fresh (not dry) • Breadfruit • Burdock root • Corn • Cassava • Cowpeas, fresh (not dry) • Field peas, fresh (not dry) • Green banana • Green peas • Jicama • Lima beans, green (not dry) • Lotus root • Plantains • Potatoes • Poi • Taro • Water chestnuts 	<ul style="list-style-type: none"> • Artichokes • Asparagus • Avocado • Bamboo shoots • Bean sprouts (alfalfa, mung) • Beans, green and yellow • Beets • Brussels sprouts • Cabbage, green and red • Cactus (nopales) • Cauliflower • Celeriac • Celery • Chayote (mirliton) • Chives • Cucumbers • Daikon (oriental radish) • Eggplant • Fennel • Garlic • Horseradish • Iceberg lettuce • Kohlrabi • Leeks • Mushrooms • Okra • Olives • Onions • Peas in pod, e.g., snap peas, snow peas • Pepperoncini • Peppers (green sweet bell, green chilis, purple, yellow) • Pickles (cucumber) • Radishes • Rhubarb • Shallots • Sauerkraut • Snap peas • Snow peas • Spaghetti squash • Tomatillo • Turnips • Wax beans • Yellow summer squash • Zucchini squash

Vegetable subgroups are based on the recommendations of the 2020-2025 *Dietary Guidelines for Americans*. (Ref: DGAs 2020-2025, https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf)

Fruit: All fruit may be substituted with another fruit of equal serving size. i.e., ½ cup canned peaches for ½ cup canned pears.

Grains: All grains may be substituted with another grain of equal serving size. However, a whole grain must be substituted with another whole grain unless approved by RDN, CDM or NDTR.

Meat/meat alternate: Any meat may be substituted with another meat of equal serving size. i.e. 2 oz of chicken can be substituted for 2 oz of turkey. Every effort must be made to maintain similar fat percentages.

A meat alternate may be substituted with another meat alternate of equal serving size. i.e. kidney beans can be substituted for black beans.

Milk: Alternative milk fats may be substituted for each other, i.e. 1% milk for skim milk. All other milk substitutes must be approved by a RDN, CDM or NDTR if more than one week prior to service.

Combination foods: Foods that contain more than one meal component must be approved by RDN, CDM, or NDTR if more than one week prior to service. i.e., most entrees.

Substitutions must:

1. Be documented on the menu and maintained on file.
2. List the name of the food or beverage item to be substituted and the food it will be substituted with.
3. List the reason for the substitution.
4. Contain RDN, NDTR or CDM signature IF more than one week prior to service and does not meet the pre-approved substitution lists above (*refer to footnote 35*).

5 Modifying Recipes to Meet Nutrient and Menu Requirements

Cooking within the dietary guidelines does not require sacrificing quality or flavor. Existing menus and recipes used by the nutrition providers can be modified to reduce fat, sugar, sodium and increase fiber. The Dietary Guidelines for Americans can be met by providing meals that include a variety of foods and by making gradual changes such as decreasing the amount of saturated and trans fat, sugar and sodium and adding herbs and spices for flavor.

5.1 Fats

Fats are a vital part of the diet. However, some fats should be restricted. Additionally, fats are more calorie dense than other macronutrients, 9 kilocalories/gram vs 4 kilocalorie/gram in protein and carbohydrate. When the goal is to reduce caloric intake, reducing the amount and type of fat in the diet can be helpful.

Types of Fat:

Unsaturated fat: Unsaturated fats include poly and monounsaturated fats and omega 3 fatty acids. When eaten in moderation, unsaturated fats have health benefits including lowering the risk of cardiovascular disease and decreasing cholesterol. Unsaturated fats include liquid oils such as corn, olive, canola, sunflower, safflower, and soybean oil. Other sources of unsaturated fats include avocado, nuts, nut butter, and fish.

See Appendix 41 for the American Heart Association's "4 Ways to get Good Fats" tips.

Saturated: Saturated fats are those saturated with hydrogen molecules. They are typically solids at room temperature. Saturated fats are most often found in animal products, dairy products (butter, cream, milk). Some plant based foods contain saturated fat as well including coconut oil, coconut butter, palm and kernel oil. Saturated fats are also found in many baked and processed goods. The Dietary Guidelines recommend that saturated fats are limited to less than 10% of total calories.

Trans Fat: As of June 2018, Partially Hydrogenated Oils (PHOs), which was the majority of trans fat in the food supply are no longer "Generally Recognized as Safe" (GRAS), therefore, most trans fat is no longer in the food supply. There is still a small amount of trans fat that occurs naturally in some animal sourced food. Trans Fat in the diet should be minimal.³⁶

Oils are not considered to be part of discretionary calories because they are a major source of vitamin E and polyunsaturated fatty acids, including the essential fatty acids. In contrast, solid fats (i.e., saturated and trans fats) are listed separately as a source of discretionary calories.³⁷

³⁶ American Heart Association (n.d.) - Hereafter referred to AHA. *Dietary Fats*.

³⁷ DGA, 2020-2025 (p. 35). (2020, December). Dietary Guidelines.

General Cooking Tips

- Emphasize fruits, vegetables, whole grains, low fat dairy, fish and poultry in the diet.
- Limit red meats and high sugar and sugar sweetened beverages as well as highly processed foods.
- Foods containing coconut and palm oils should be avoided.
- The use of fried foods, bacon, sausage, pastries, whole milk, and mayonnaise should be limited.
- The use of low fat salad dressings, cheeses and gravies made without drippings and fats is strongly encouraged.
- A combination of lean ground turkey and ground beef can be substituted in entrees calling for higher fat ground beef.
- Meats can be browned without added fat and fat can be removed from foods before and after cooking.
- Rinse high fat ground meats after cooking and reheat in the pan.
- Choose cuts of meat that are lean, with little visible fat. Trim off visible fat before cooking.³⁸
- Try ground turkey for a lower fat alternative to ground beef. Read the label—some brands contain about the same amount of fat as lean ground beef.
- Try fresh ground fish, like ahi, or soy-based products in recipes.

Try these lower-fat cooking methods:

- Baking, broiling, grilling and steaming food is strongly encouraged. Frying in fat should be avoided.
- Roasting – Place meat on a rack in the roasting pan so that the fat drips away during cooking.
- Braising or Stewing – To get rid of the fat that remains in the cooking liquid, refrigerate overnight and then remove the hardened fat. Longer cooking times help tenderize tough cuts of meat.
- Use a bulb baster or fat separator to remove liquid fat.
- Drain meat after browning.
- Drain and rinse ground meats after browning.
- Sauté onions and garlic in 1 Tablespoon or less olive oil to start and then add water or broth to steam and sauté.

38 AHA (n.d.). *Cooking to Lower Cholesterol*.

Sauces, Gravies, and Dressings:

- Low fat or fat free milk should be substituted for milk and cream in recipes.
- To make gravies or sauces with less fat but without lumping, mix the flour or cornstarch with a small amount of cold liquid until smooth. Stir this mixture slowly into the hot liquid you want to thicken and bring to a boil.
- If a sauce made with yogurt is to be heated, add 1 Tablespoon of cornstarch for each cup of yogurt to prevent separation.
- For homemade salad dressings, use less oil in proportion to other ingredients. For creamy dressings, add yogurt to replace some of the oil.
- Try lemon juice or herbed vinegar for fat-free dressings, and reduced calorie or fat-free salad dressings.

Baked Products

- Instead of using solid fats such as shortening, lard and butter, use vegetable oil in your recipes. Types of vegetable oils include corn oil, canola oil and peanut oil. To substitute liquid oil for solid fats, use about $\frac{1}{4}$ less than the recipe calls for. For example, if a recipe calls for $\frac{1}{4}$ cup shortening or butter (4 tablespoons), use 3 tablespoons of oil instead.
- Use plain low fat or nonfat yogurt instead of sour cream in baking, use plain low fat or nonfat yogurt in the same proportion as sour cream and save on saturated fat calories. You can also substitute buttermilk or blended low fat cottage cheese. This method produces a savings of 44 grams of fat.
- Another way to decrease the amount of fat and calories in your recipes is to use skim milk or 1% milk instead of whole milk or half and half. For extra richness, try evaporated skim milk. This method produces a savings of 25 grams of fat!
- Make one-crust or “no crust” pies rather than two crust pies.
- Substitute dried fruits and raisins for chocolate chips.
- Use 2 egg whites instead of one whole egg, for half to all the eggs in a recipe.
- Make angel food cake in place of other cakes. It uses egg whites and has only a trace amount of fat (*refer to footnote 38*).

5.2 Sodium

According to the DGAs, a healthy eating pattern limits sodium to the Chronic Disease Risk Reduction (CDDR) levels defined by the National Academies. The recommendation is less than 2300 mg per day for adults age 51 or older. The CDDR is based on evidence that shows that lower salt diets reduce the risk of cardiovascular disease and hypertension.

- 1 teaspoon salt = 2,300 milligrams sodium

- 1 teaspoon soda = 820 milligrams sodium
- 1 teaspoon baking powder = 330 milligrams sodium
- Salt should be used lightly in cooking with emphasis placed instead on herbs and spices. Onion or garlic powders can be used, rather than using seasoned salts, i.e., onion or garlic salt.
- The use of low sodium soups, gravies, and stocks is strongly encouraged. Unsalted broth, low salt tomato juice or fruit juice can be used, rather than drippings, to baste meat, poultry, or fish.³⁹
- The fresh cuts of meat such as chicken breast or pork instead of processed meats like hot dogs, bacon, sausage, bologna and ham.⁴⁰
- Fresh or frozen vegetables, rather than canned, should be used when possible to reduce salt content (*refer to footnote 39*).
- Canned vegetables that cannot be avoided, should be rinsed to decrease the sodium content.
- Low sodium or no salt varieties, rather than regular canned soups should be used when possible to reduce salt content.
- Combine lower salt versions with full salt versions. Over time, you can slowly begin to decrease the higher salt portion while cooking (*refer to footnote 39*).
- Use low sodium condiments such as low sodium soy sauce whenever possible.
- Salt is an acquired taste that can be relearned in 6-8 weeks. Continued use of low salt products will lead to less salt cravings over time (*refer to footnote 39*).

See Appendix 26 for a list of herbs and spices to flavor food without the added salt.

5.3 Sugar

According to the DGAs, added sugars in a healthy dietary pattern should be limited to less than 10% of calories per day. Additional tips to lower sugar intake include.⁴¹

- Reduce sugar by $\frac{1}{4}$ to $\frac{1}{3}$ in baked goods and desserts. Cookies, quick breads and cakes can be successfully baked this way. Substitute flour for the omitted sugar. Do not decrease sugar in yeast breads because sugar feeds the yeast.
- Prepare desserts with a sugar substitute appropriate for baking and heating.
- Compare labels on processed foods and look for products that contain less than 10% of added sugar.
- Serve fresh, frozen or canned fruit without added sugar.

39 AHA (n.d.). *How to Reduce Sodium*.

40 National Kidney Foundation. *Top 10 Tips for Reducing Salt in Your Diet*.

41 DGA, 2020-2025, (p. 41). (2020, December). Dietary Guidelines.

- Avoid serving sugar sweetened beverages. If serving juice, serve only 100% fruit juice.
- Avoid high sugar desserts. Consider using fresh fruit to sweeten desserts and serve sparingly (2x/week or less).

6 Food Safety and Sanitation

Service providers must adhere to all state and local health laws, ordinances and codes. Foodborne illness is an important concern for older adults who are a highly susceptible population. Foodborne illness risk can come from organisms, toxins and chemicals. The principle known risk factors include:

- Improper holding temperatures
- Inadequate cooking, such as undercooking raw shell eggs
- Contaminated equipment
- Food from unsafe sources
- Poor personal hygiene
- Improper food storage and pest infestation

When sanitation guidelines are followed, the health and safety of both the food service workers and the participants are assured.

6.1 Hazard Analysis Critical Control Point (HACCP)

This is a systematic preventive approach to food safety that addresses physical, chemical and biological hazards. The system can be used at all stages of food production and preparation. A plan can be developed by employing the seven basic principles.⁴²

Principle 1.	Conduct a hazard analysis. A hazard is a biological, chemical, or physical agent that is reasonably likely to cause illness or injury in the absence of control.
Principle 2.	Determine the critical control points (CCP). These are the points where control steps should be applied that can prevent or eliminate a food hazard or reduce it to an acceptable level.
Principle 3.	Establish critical limits for each critical control point. A critical limit is the maximum or minimum value to which a physical, biological, or chemical hazard must be controlled at a critical control point to prevent, eliminate, or reduce to an acceptable level
Principle 4.	Establish critical control point monitoring procedures. Monitoring activities are necessary to ensure that the process is under control at each CCP.
Principle 5.	Establish corrective actions. These are actions to be taken when monitoring indicates a deviation from an established critical limit.
Principle 6.	Establish record keeping and documentation procedures.
Principle 7.	Establish procedures for verifying the HACCP system is working as intended (FDA, USDA, National Advisory Committee on Microbiological Criteria for Foods Aug 14, 1997).

42 U.S. Food and Drug Administration (n.d.) - Hereafter referred to as USDA. *HACCP Principles & Application Guidelines*.

6.2 Food Quality and Sources

All foods must be of excellent quality and be obtained from sources that conform to federal, state and local regulatory standards for quality, sanitation, and safety.

All food purchased, and all contributions received for service to participants must be from an approved source and documented as such. The following items are not approved and will not be accepted, stored, prepared, or served:

- Cans which are bulging, dented, leaking, rusty or which spurt liquid when opened
- Food with an off-odor
- Food which shows signs of mold
- Food prepared or canned in the home

6.3 Food Equipment Requirements

Nutrition service providers must utilize equipment which can maintain safe temperatures of all menu items throughout the entire serving period (*refer to footnote 5*).

6.4 Food Handler Safety

Good hygienic practices are important to ensuring that food is not contaminated with bacteria, foreign objects or chemicals. The food service staff must maintain a high standard of personal hygiene and cleanliness.

- Food service workers must thoroughly wash their hands with soap and warm water for 20 seconds before and during work as often as necessary, after smoking, eating, drinking, touching the face, scalp, nose, mouth, cell phone usage, and after using the restroom. Proper hand washing procedures should be posted at designated hand washing sinks in the kitchen and restrooms.
- Natural rubber latex gloves have been reported to cause allergic reactions in some individuals during food preparation and in individuals consuming food prepared by employees wearing latex gloves. Non-latex single-use disposable sanitary gloves should be used in conjunction with proper hand washing procedures when mixing or handling ready-to-eat foods, such as serving bread, making sandwiches, or assembling salads.⁴³
- Daily personal grooming and hygiene habits must be observed.
- Acceptable hair restraints such as hairnets or caps must be worn.
- Sites should establish policies for proper attire.

43 (2023) 2022 Food Code - Chapter 3. USDA, United States Public Health Service, Center for Food Safety and Applied Nutrition

6.5 Chemical Safety

Proper use of chemicals is essential to the safety of the food service operation. Training in the use, dangers, storage and handling of chemicals should be included as part of staff orientation and on-going training.

Storage and Use

- Chemicals must not be stored with food items.
- Two chemicals should never be mixed or used together.
- Materials Safety Data Sheets (MSDS) provide emergency treatment information if a chemical accident occurs.
- Sanitizing agents; follow manufacturer's recommendations for concentrations and temperatures.
- Chlorine; add a small amount to a 50 to 100 ppm concentration; surface contact time 10 seconds.
- Container solutions of chemicals for clothes to sanitize surfaces and cleanup should be changed every 2 hours. Cleaning clothes should never be left on working surfaces.⁴⁴

6.6 Dish Machines and Sinks

Two methods are used to sanitize surfaces; heat and high temperatures or chemical sanitizing. Follow manufacturer's recommendations for temperatures and concentrations.

Three-compartment Sink

- Pots and pans should be scrapped, rinsed or soaked before washing in a three-compartment sink. Proper use of the sinks includes: Sink # 1 – washing; Sink# 2 – Rinsing; Sink #3 – Sanitizing.
- Chlorine solutions should be added in a small amount to achieve a 50-100 ppm concentration. Follow manufacturer's recommendations or trial method.
- Quaternary sanitizing solutions should be added in an amount to a 200 ppm solution.
- All items should always be air-dried.⁴⁵

44 (2023) *2022 Food Code* - Chapter 7. USDA, United States Public Health Service, Center for Food Safety and Applied Nutrition.

45 (2023) *2022 Food Code* - Chapter 4. USDA, United States Public Health Service, Center for Food Safety and Applied Nutrition.

6.7 Safe Transport and Packaging for Home Delivered Meals

Home delivered meal participants tend to have more health problems than congregate participants, and therefore are at higher risk for foodborne illness. Food safety and sanitation practices are essential to the well-being of the participants.

Transport

All food for home delivered meals shall be packaged and transported in a manner which protects it from potential contamination, dust, insects, rodents, unclean equipment or utensils, and unnecessary handling. Packaging and transport equipment must be capable of supporting or maintaining appropriate food temperatures. Cold foods must be packaged separately from hot foods so that correct temperatures can be maintained (*refer to footnote 43*).

Carriers for Home Delivered Meals

If the delivery route takes longer than 30 minutes and/or if there are many stops on the route requiring the carrier to be opened numerous times, hot meals should be transported with an added source of heat (heat stone, hot salt, etc.) and cold food carriers should include ice and/or commercial freezing rings. Opening of the insulated carrier should be minimized because heat escapes with each opening (*refer to footnote 43*).

6.8 Food Inventory Systems

Maintaining an inventory system of foods and supplies on hand is recommended for food safety, good food service management, cost control, and efficiency in purchasing. Inventory records should include:

- Name of food item/description i.e., sliced, diced;
- Unit size;
- Unit purchase price;
- Date purchase received;
- Number of items received on this date; and
- Supplies on hand.

6.9 Food Storage

Food and supply stock must be rotated (old inventory to front, new to back). Use the first in first out (FIFO) principle which allows the older inventory of food to be used first. Managing the supply in this manner allows the older food to be found quicker, used more efficiently, and used before products expire.

Dry Storage

- Storerooms should be kept dry, clean, and well vented.
- Chemicals must be stored away from food items.
- Can lids should be free of dust.
- Any foods removed from their original containers should be placed in airtight containers and labeled.
- All dented cans should be removed.
- Food must be stored 6 inches above the floor to allow for cleaning.

Refrigerators

- Temperature must be 40° F or below.
- Use open shelving to allow for air flow, do not store food on the floor.
- Cool hot foods prior to placing in the refrigerator.
- Store eggs on the bottom shelf.
- Store raw meats, poultry and fish below and separate from ready to eat items such as ham.
- Wrap food properly and label.

Freezers

- Temperatures must be 0° F or below.
- Place frozen food in the freezer as soon as possible after receiving.
- Keep doors closed and light off when possible.
- Wrap and label all site prepared items.⁴⁶

6.10 Leftover Foods

Nutrition service providers must take appropriate action to minimize leftovers at each site. Leftover food at on-site cooking facilities must be properly refrigerated and incorporated into subsequent meals whenever possible. Sites with proper storage facilities may want to freeze leftovers. Leftover food at facilities that do not have on-site cooking may be offered as a second helping to all participants in the congregate setting. However, perishable leftovers may NOT be taken home.

Participants may take home ONLY fresh fruits, cakes and cookies, and non-perishable foods not consumed with their meal.

No food may be taken from the site by the staff.

⁴⁶ USDA (n.d.). *Are You Storing Food Safely?*

6.11 Limitation of Food Holding Time

There should be no more than 2 hours between the time of completion of cooking and the beginning of serving. Products which do not need to be held over 140° F are exempt. To stay within the recommended time period, it may be necessary to adjust the serving schedule (refer to footnote 43).

6.12 Meal Service

Menus must be posted one week in advance in an area that is visible to the participants.

6.13 Thermometers

Probe thermometers should be calibrated weekly following the manufacturer's procedures. If the standard probe thermometer is used, it can be calibrated using the ice method:

1. Fill a small container with crushed ice or ice cubes, fill with water;
2. Insert the sensing area into the ice water;
3. The thermometer should read 32° F.

If the thermometer is not accurate, turn the calibration nut until the indicator reads 32° F.

For hot temperatures, place the thermometer in boiling water. The temperature should read 212° F (high altitudes above 5,000 feet should read 198° F). If the thermometer is not accurate, throw it away.

Make sure the thermometer is clean and sanitized with an appropriate sanitizer (100 ppm bleach solution or alcohol wipe). The thermometer should be sanitized and cleaned between each product testing.

6.14 Temperature Monitoring

The temperatures of all food items must be checked with a probe type thermometer. Serving temperatures for hot foods must be 140° F or above and cold foods at 40° F or below.

Time/Temperature Control: Every attempt must be made to maintain safe food temperatures throughout the serving period using proper food holding equipment. However, if approved by your county food service department, time as a control may be used. Food must be served **within 2 hours of reaching minimum safe food temperatures**. Food temperature and time must be documented daily prior to serving. Minimum safe food temperatures are listed in Appendix 21.

Satellite Meals: Food items delivered to a meal site (satellite) must be checked upon arrival and prior to congregate meal service. All food temperatures must be documented.

Home Delivered Meals: Twice each month the temperatures of home delivered meals must be checked at the time of packaging and at the time of the delivery of the last meal using a test or unused meal. These temperatures must be documented and kept on file. Problems with temperatures should be evaluated and addressed.

Temperature Do's and Don'ts

- Do stir hot food from the middle of the pan outward during the meal service to maintain an even temperature.
- Do insert the thermometer into the thickest portion of the food or middle of the pan. The sensing area (usually a line or continued dimple etched into the thermometer stem) should be covered approximately $\frac{1}{8}$ to $\frac{1}{4}$ inch above the staking dimple with the food being tested. Allow the temperature to stabilize for 15 to 20 seconds and record the temperature.
- Do not submerge the entire thermometer into the liquid portion of foods; the thermometer could be damaged.
- Do not insert the probe next to a bone or allow the thermometer to touch the bottom or sides of the pan.
- Do not tap the thermometer on the pans.
- Do not use the thermometer to remove the lids from the pans or pans from the serving line (*refer to footnote 43*).

6.15 Protect Nutritional Value

In the preparation, service and delivery of meals, the nutrition services provider must follow appropriate procedures to preserve the quality, nutritional value and safety of the food.

7 Home Delivered Meal Requirements

7.1 Meal Delivery Requirements

- All meals must be delivered to an individual. They may not be left for an individual. This means that meals may not be left on doorsteps, mailboxes, porches or in outside ice-chests (*refer to footnote 2*).
- Temperature of the meals, using a test meal or unused meal, must be documented at least two times a month to ensure that hot foods are delivered at 140° F or above, and cold foods delivered at 40° F or below. Temperatures must be taken at the end of the route and documented on the delivery route sheet.
- Route sheets must be used to obtain authorized signatures.
- All unused meals must be discarded at the end of the route and not reused.

7.2 Meal Packaging

Hot foods must be packaged in individual containers with the following characteristics:

- Firm, compartmentalized, with deep enough sections that foods do not mix with one another;
- Closeable, so that heat is retained;
- Impermeable, so that liquids do not soak through;
- Re-heatable; if possible;
- Stackable for storing, carrying and transporting;
- Easily opened; and
- Economical.

7.3 Carriers for Packaged Meals

It is essential that temperature control be maintained during the delivery of the meal.

Hot foods – 140° F or above; Cold Foods – 40° F or below.

Carriers used should have the following characteristics:

- The packaging materials must maintain proper temperatures.
- Packaging should be non-porous and easy to handle.
- Material should help maintain the flavor and odor of the food.
- Ability to meet the special needs of the program, i.e., length of delivery route.

If a new carrier unit needs to be purchased, carrier units should be reviewed for their ease of cleaning, time required to open and close the carrier, warranty, and replacement procedures if the carrier is defective. Ask the vendor to borrow a unit for field testing before purchasing, if possible.

If the time between the packaging of the food and the delivery is short (20 to 30 minutes), insulated carriers such as Styrofoam or insulated plastic should be adequate. Other packaging materials have been developed for transport of home delivered meals. Before any carrier is purchased, be sure it meets the particular needs of the program in terms of:

- Size and shape of the meal packages;
- Size of the delivery vehicle;
- Amount of weight and size of carrier a single deliverer can lift;
- Cost; and
- Durability.

7.4 Delivery Routes

Careful planning of delivery routes reduces the time needed for delivery and can prevent much frustration. To ensure an efficient route:

- Obtain detailed information about the delivery area, i.e. map of the area or use of GPS if available;
- Design each route to include sufficient time for the meal deliverer to assist with opening the meal if indicated and do a wellness check;
- Determine the number of recipients per route based on the distances between recipients and travel times. Fewer recipients can be served per route in a rural or suburban area than in a densely populated urban area;
- For each stop on the route, note details necessary for gaining access to the recipient's home. This will include determining at which door to knock, which floor of the apartment house, which number, etc.
- Each route sheet must include the phone numbers of the kitchen and main office of the program for any questions that may arise. If an emergency is encountered at a recipient's home, emergency services should be immediately called. The driver then should contact the main office of the program so they can notify the emergency contacts listed in the recipient's file;
- Include on the route sheet explanations of any special recipient and environmental problems about which the driver should be aware, such as hearing deficiencies, inability to open the food package, unusual slowness in answering the door, unstable health problems, unsafe pets, loose steps etc.

- If possible, a trial run of any new route should be made before the first meal delivery day, to test the feasibility of the route; and
- If possible, two people should go on the delivery route to expedite service and provide added security for the vehicle and staff. One can stay with the vehicle and one can deliver the meals.

7.5 Frozen and Freeze-Dried Meals

A frozen or freeze-dried meal may be provided for non-delivery days, additional meals for the same day, or where it is cost effective to service expansion to provide frozen meals beyond the limitations of a hot meal delivery route, provided that (*refer to footnote 2*):

- The meal and its preparation meet all the standards of the scope of work.
- It is verified and documented in the case record that the individual has the facilities to properly store and prepare frozen meals.
- If an individual is to receive more than one meal per delivery, then the reason for delivery of multiple meals must be documented in the individual's case record (*refer to footnote 2*).

8 Nutrition and Health Promotion

The aging of the population has heightened the necessity to develop effective and efficient nutrition and health services for older adults. Good nutrition is important in maintaining the health and functional independence of older adults. It can reduce hospital admissions and delay the need for alternative placement. Service networks that provide a continuum of home and community-based services have become increasingly important because they allow older adults to preserve their independence and ties to family and friends.

8.1 Disease Prevention and Health Promotion

According to the Centers for Disease Control and Prevention (CDC), the leading causes of death in Arizona adults are chronic diseases, including cardiovascular, cancer, stroke, and pulmonary disease. Such diseases disproportionately affect older adults. Appropriate nutrition interventions and health services can successfully manage these chronic conditions and improve quality of life outcomes.⁴⁷

Services include disease prevention and health promotion programs designed to reduce the need for costlier medical interventions and that meet the current definition of evidence-based set forth by the Administration for Community Living.

8.2 Evidence Based Disease Prevention/Health Promotion Programs

Through the OAA Title III-D, Evidence-Based Disease Prevention and Health Promotion Services, ACL's Administration on Aging (AoA) provides grants to states for programs that support healthy lifestyles and promote healthy behaviors. With the use of these grants, AAA's are responsible for facilitating the area-wide development and implementation of a comprehensive, coordinated system for providing long-term care in home and community based settings. Services must be provided in a manner responsive to the needs and preferences of older individuals and family caregivers, by implementing, through the agency or service providers, evidence-based programs to assist older individuals and their family caregivers in learning about and making behavioral changes intended to reduce risk of injury, disease, and disability among older individuals (*refer to footnote 3*).

The ACL's definition of evidence-based health promotion programs:

- Demonstrated through evaluation to be effective for improving the health and well-being or reducing disease, disability and/or injury among older adults;
- Proven effective with older adult population, using Experimental or Quasi-Experimental Design;
- Research results published in a peer-review journal;

47 CDC, National Center for Health Statistics (n.d.) Arizona - *Key Health Indicators*.

- Fully translated in one or more community site(s); and
- Includes developed dissemination products that are available to the public.

Sources of evidence include Health and Human services sponsored research funded by the National Institute of Health (including National Institute on Aging), the CDC, including work in the Prevention Research Centers for Medicaid and Medicare Services (CMS) or other research organizations are also acceptable.

There are several specific programs that the administration on Aging and its partners have identified that meet the criteria of being evidence-based and are suitable for the specific older adult populations. These programs can be directly implemented through community-based aging service provider organizations working in collaboration with health organizations and other potential partners. The following are outstanding programs which fulfill the evidence-based requirements:

- Stanford University Chronic Disease Self-Management Program:
<https://selfmanagementresource.com/programs/small-group/chronic-pain-self-management-small-group/>
- Enhanced fitness:
<http://www.projectenhance.org/>
- Matter of Balance:
<https://mainehealth.org/about/healthy-communities/healthy-aging/matter-of-balance>
- Enhance Wellness:
<http://www.projectenhance.org/>

Additional information can be found at the Administration for Community Living's website at:⁴⁸ <https://acl.gov/programs/health-wellness/disease-prevention>

Additional helpful resources include:

A Toolkit on Evidence Based Programming for Seniors:
<https://acl.gov/programs/health-wellness/disease-prevention>

National Council on Aging Evidence Based Program Tool:
<https://www.ncoa.org/professionals/health/center-for-healthy-aging>

8.3 Nutritional Screening and Counseling

Nutrition projects are required by the OAA to provide nutritional screening using the 10 question Nutrition Screening Intake Checklist “Determine Your Nutritional Health” (Appendix 35). This checklist helps to identify the nutritional risk status of participants who receive congregate and home-delivered meals. All participants must be screened annually (*refer to footnote 5*).

48 ACL (n.d.). *Health Promotion - The Purpose of the Older Americans Act (OAA) Title III-D Program (“Health Promotion”)*.

Nutritional assessments and counseling may be conducted by professionals demonstrating competency in conducting such assessments. Those individuals who are at high nutritional risk (a score of six or higher) should be referred to a healthcare professional such as a Registered Dietitian or Medical Professional. Medical Personnel, Nutrition Diet Technicians, Dietitians/Nutritionists, or Case Managers may assess individuals at moderate risk (a score of four or five). Nutritional assessments must comply with HIPAA regulations and be documented in the client's file if necessary.

8.4 Nutrition Education

Nutrition education promotes health and helps prevent disease. Effective programs can improve diets and allow older adults to achieve and maintain optimal nutritional status. The OAA requires a minimum of two nutrition education components per quarter for both congregate and home-delivered meal participants. Nutrition education activities must be posted four weeks in advance, and outlines submitted quarterly to the AAAs. These activities should be in accordance with the participants' needs, behaviors, motivations and desires. Nutrition education may utilize written materials, demonstrations, audio-visual, lecture, presentations, and small group discussions.

Topics may include:

- USDA My Plate;
- Hydration;
- DASH eating plan;
- Diet and disease relationships;
- Avoiding weight gain or loss;
- Nutrient/drug interactions;
- Shopping for one or two;
- Cooking demonstrations;
- Physical fitness;
- Keeping caregivers nutritionally fit;
- Nutrient needs after 50;
- Reading and understanding labels;
- Food safety; and
- Gardening.

Documentation of nutrition education must be kept on file for one year and include the topic, date, presenter and number of attendees. See Appendix 32 for nutrition education resources.

8.5 Physical Activity

Physical activity is vital for healthy aging. The benefits of physical activity in older adults include increased cognitive ability, balance, and bone health. When older adults move more they have increased mobility, can perform daily tasks easier, and have a decreased risk of falls and injuries from falls. The DGAs recommend that adults complete 150-300 minutes of moderate aerobic activity per week as well as muscle strengthening activity at least 2x/week (*refer to footnote 9*).

AAA's may provide resources for exercise for older adults and may consider providing opportunities for physical activity in the congregate setting. The U.S. Department of Health and Human Services Physical Activity Guidelines for Americans and the related Move Your Way® resources have information to get started and to promote exercise in your program:⁴⁹

Appendix 33 provides guidance on exercise for seniors and ways for Congregate Meal Sites and Home Delivered meal programs to provide exercise opportunities for seniors and/or promote physical activity.

8.6 Oral Health

Optimal nutritional health can be compromised due to ill-fitting dentures, missing teeth, problems with chewing and swallowing, and poor oral hygiene. Partnering with community resources that can assist in providing dental services and oral health education will help ensure that older adults can live a full and independent life. See Appendix 34 for resources for older adult oral health.⁵⁰

8.7 Vaccination

The aging population is particularly vulnerable to influenza and other circulating diseases because immune defenses decline with age. Additionally, older adults may have underlying medical conditions that increase the risk of serious complications. Vaccination is an important preventative measure that can greatly reduce serious complications. Information should be provided to participants and homebound older adults on where vaccines for influenza, pneumonia, shingles, and other circulating disease and pandemics can be obtained in their community. For more information regarding vaccination for the flu and other circulating diseases for the aging population, visit the Centers for Disease Control and Prevention website at <https://www.cdc.gov/flu/highrisk/65over.htm>.^{51 52}

49 USDA, Office of Disease Prevention and Health Promotion (n.d.). *Physical Activity Guidelines for Americans*.

50 ACL, Nutrition and Aging Resource Center (n.d.). *Ready-to-Use Education*.

51 CDC. *Flu & People 65 Years and Older*. <https://www.cdc.gov/flu/highrisk/65over.htm>. Retrieved August 25, 2022.

52 CDC. *Vaccinating Older Adults and People with Disabilities at Vaccination Clinics*.

9 Site Administration

The senior center and congregate meal program can become the focal point for many seniors. It is vital to provide a welcoming and inviting atmosphere where participants can socialize and receive a nutritious meal. The staff and volunteers should be well trained and knowledgeable in the policies and procedures necessary to run a successful center.

9.1 Facility Requirements

All providers of meal and nutritional services funded under Title III of the Older Americans Act shall comply with the additional following standards and/or licensure requirements:

- Non-discriminatory practices will be observed. Facilities operated by specific groups will not restrict participation to their own membership nor show discriminating preference for such membership.
- Congregate meal sites will be as close as possible to the majority of eligible persons in the preferred target group in the service area. Approval for changes or additions of locations will be obtained in writing from the AAA.
- There must be a physical and distinct separation between the dining area and the food preparation/kitchen area.
- The facility will be kept clean and properly maintained.
- Facilities and equipment used to provide meals must be suitable for use by aged and/or disabled individuals.
- Adequate aisle space must be provided between tables for the use of wheelchairs, or to allow persons with canes or other support devices to walk with ease. Aisle space must always be at least 32 inches wide.
- All facilities that prepare congregate or home-delivered meals are required to comply with local fire, building, and sanitation codes, regulations as well as with Federal, State and local laws regarding public facilities and licensing (*refer to footnote 43*).
- A basic first aid kit must be on premises at all times. Supplies should be restocked as they become outdated or depleted.
- A fire extinguisher with a current inspection tag must be on the premises at all times.
- All facilities where clients congregate, the AAAs are responsible for assuring that providers meet all regulatory agency standards concerning air quality at facilities where clients congregate, are met and maintained. AAAs are also responsible for finding methods to improve the air quality, when possible.
- Sites must be accessible to persons with disabilities.

- Sites must have a sign that is clearly visible with its name.

9.2 Participant Registration

The site must provide registration and orientation to the site's policies and procedures such as reservations, swipe cards and sign-in sheets to all new eligible participants. The registration can be completed on a computer or on a registration form. Information about participants must be kept in a secured location, such as a locked file or password protected computer.

9.3 Participant Contributions

The OAA prohibits means testing for nutrition services; however, AAAs must ensure its providers provide participants the opportunity to voluntarily contribute to the cost of their meal. AAAs and providers must clearly inform each participant that there is no obligation and that any contribution is entirely voluntary. In addition privacy must be protected regarding any contribution or lack thereof.

9.4 Outreach

Outreach activities are important to identify and target services to older individuals who may have difficulty accessing services, and to reach those that need assistance under the OAA and other programs. These activities may include:

- Participation in community activities such as health fairs;
- Speaking engagements;
- Special mailings and announcements in local water or utility bills;
- Distribution of flyers throughout the community such as places of worship, grocery stores, doctors' offices, and local businesses;
- Visiting seniors in their homes; and
- Advocating on behalf of older adults.

10 Emergency Management Planning

Although emergencies are never welcome, they should be planned for. When considering older adults, emergencies may introduce a myriad of challenges. In emergencies, the OAA requires state and local governments, AAAs, emergency response agencies, and relief agencies to coordinate activities in the effort to provide the most effective relief and support for older adults in their communities. Ref: AREA PLANS, Section 306 of the OLDER AMERICANS ACT OF 1965 [Public Law 89 - 73] [As amended through P.L. 116-131, Enacted March 25, 2020]

10.1 Special Needs of Older Disaster Victims

AAAs and local service providers take on the vital role in delivering assistance and resources to seniors during disasters and emergencies. Because senior populations pose special challenges for emergency management, it is imperative that the entities comprising the federal, state, and local emergency management systems work hand-in-hand in all phases of disaster. Relationship-building between the AAAs and emergency managers, combined with planning and open communication pre-disaster, will facilitate disaster responses that are better informed and include all sectors of the community. Forging partnerships with other federal, state, and local emergency managers prior to the incidence of disasters, will allow the delivery of efficient, timely, and consistent response and recovery services when a disaster occurs.

10.2 Emergency Management Suggested Checklist

- Determine how your jurisdiction carries out emergency management.
- Set up meetings with essential players (i.e., Office of Emergency Management, fire department, law enforcement, and emergency medical services).
- Establish working relationships by sharing contact information and setting up notification systems.
- Identify resources and skill sets that will be useful for both senior service agencies and emergency management officials.
- Participate in plan development, drills and exercises, and other preparedness activities.
- Develop an internal Business Continuity Plan for your agency to ensure that your mission can be carried out with special emphasis on communications, back-up systems for data, emergency service delivery options, and transportation.
- Identify other partners including the American Red Cross, the Salvation Army, and other members of the Voluntary Organizations Active in Disaster, and any other senior-focused agencies/organizations.
- Work with partner agencies to identify potential areas of unmet needs and plan for them.

- Have a system in place to track emergency expenditures as they may be reimbursable.
- Talk to similar agencies in other jurisdictions. They may have systems and literature in place that you can adapt for your locality (*refer to footnote 3*).

10.3 How AAAs and Local Service Providers Can Prepare Older Adults for Emergencies

The American Red Cross and other volunteer agencies provide individuals with food, water, and clothing. People should listen to the radio or watch a local television station for the location of the nearest shelter or emergency facility. The AAAs and/or Nutrition Programs should ensure that:

- Older adults are knowledgeable about food and environmental safety when there are power outages, water supply disruptions, severe weather emergencies, and other threats to their safety;
- Older adults have information on the types of foods and other necessities to have on hand for emergencies;
- Older adults know to keep available a 3-day supply of water for each family member and to replace water every six months. The hot water heater is an excellent source of water in emergencies. Turn off the power that heats the tank and let it cool. When water is needed, place a container underneath the tank, and open the drain valve on the bottom of the tank.

10.4 Emergency Preparedness Policy

The details of the Emergency Management Policy can be found in the AAA contractual agreement. The policy outlines specific requirements for coordinating activities, and developing long-range disaster/emergency preparedness plans, with local and state disaster/emergency response agencies, relief organizations, local and state governments, and any other institutions that have responsibility for disaster relief service delivery. The Disaster/Emergency Management Plan includes components of disaster/emergency preparedness, disaster/emergency response, and disaster/emergency recovery.

10.5 Responsibilities of AAA's and Local Service Providers During an Emergency

Local Service Providers must have a written emergency feeding plan and menu for one day which can be implemented immediately in any situation where the meal cannot be prepared, delivered or is unsuitable for consumption. Shelf-stable and/or frozen meals can be purchased from distributors and provided to high-risk congregate and homebound participants in an emergency. **Emergency meals must include one-third of the DRI's and must follow the meal pattern.**

Food items kept on hand may include:

- Proteins (beef ravioli, beef stew, legumes, cheese sauce, peanut butter)
- Fruits (canned fruits and juices, raisins)
- Vegetables (canned vegetables, canned juices, canned soups)
- Starches (crackers, energy bars, breads and rolls, fortified cereal)
- Desserts (canned puddings, cookies)
- Nonfat dry milk

Example Menu Ideas:

Entrée: Beef stew, canned chicken or tuna, chicken noodle soup, canned beans

Fruit: Canned peaches, pineapple

Vegetable: Canned carrots, green beans

Starch: Whole grain crackers, corn chips

Milk: Nonfat dry milk

Extra: Bottled water, pudding cup, rice pudding

Having specific plans for saving lives, educating the public about what they can do including evacuation planning and shelters will lessen the impact of an emergency and facilitate response and recovery. AAAs and Local Service Providers can do the following in preparation:

- Prepare older adults for emergencies with knowledge about food and environmental safety when there are power outages, water supply disruptions, and severe weather emergencies;
- Develop a list of older persons who may be at risk in an emergency;
- Periodically update and practice emergency plans;
- Plan for back-up power sources such as a generator;
- Keep emergency supplies on hand such as potable water, radios, batteries, and flashlights;
- Have a back-up system for computer files;
- A plan to provide food to the community (e.g., in emergency shelters, senior housing);
- Have at least one days' worth of shelf-stable food on hand;
- A plan for alternative cooler space. Food vendors may provide freezer/cooler trucks for emergencies;

- Food and transport equipment kept on hand at kitchens, disposable pans and utensils, Sterno, hot blocks, and blue ice; and
- Food suppliers that can respond in an emergency

During an emergency or disaster, the AAAs and service providers must respond to meet the immediate needs of those affected. Most often, the AAA or service program director will be first informed of an impending or potential emergency by the local Office of Emergency Management (OEM). When staff is alerted, they should immediately contact their director. In his/her absence, the next individual in the chain of command should be contacted and proceed as follows:

- Communicate with other departments and agencies through the local OEM to ensure coordination of status reports, resources available, and assistance needs;
- Relocate to a designated emergency/evacuation center as necessary;
- Institute evacuation and/or sheltering procedures as necessary;
- Provide the Emergency Operations Center (EOC) with information and support to assist older persons during the emergency;
- Maintain contact with staff via the service program director and others to provide direction, materials, and support as needed;
- Ensure that all congregate dining and senior centers, kitchens, program offices, and drivers are contacted;
- Ensure that staff contacts high-risk older adults when there are service disruptions (e.g., no home-delivered meals) to check on their status. Any problems or concerns should be directed to appropriate staff;
- Contact the local OEM to obtain Ham, CB, and/or police department assistance in the event telephones are inoperable; and
- Provide other assistance as necessary;
- Crisis counseling for older adults, caregivers, and staff;
- Adequate shelter, toilet facilities, as well as potable water and food;
- First aid and medical care to anyone who is hurt or becomes ill; and
- Care for an individual's pet(s) as some persons may refuse to leave without them.

Using the congregate dining or senior center for sheltering may be coordinated with the local OEM. Sheltering in place procedures include:

- Using these facilities as an emergency measure until the local on-scene commander (generally the Fire Chief) determines that older adults can be relocated to a Red Cross shelter or be taken home;
- Closing all windows and doors. In the event of a chemical or hazardous materials disaster, doors, and windows should be sealed immediately with masking or duct

tape and doorways blocked with towels, rags, or blankets;

- Listening to the radio for further instructions; and
- Making individuals as comfortable as possible by providing meals and activities.

10.6 Additional Emergency Management Resources

- U.S. Government website. Consumer guidance on emergency preparedness. [Ready.gov: Plan Ahead for Disasters](#)
- US Department of Homeland Security. Develops and coordinates the implementation of a comprehensive national strategy to secure the United States from terrorist threats or attacks: [Homeland Security | Home](#)
- Federal Emergency Management Agency (FEMA). Primary government website for emergency preparedness and response; Current status of nationally designated emergencies. [www.fema.gov](#)
- FEMA - Are You Ready? A Guide to Citizen Preparedness: up-to-date information for the public about hazard awareness and emergency education: [Are You Ready? An In-Depth Guide to Citizen Preparedness](#)
- The Extension Agent's Handbook for Disaster Preparedness and Response. For emergencies or as an aid in preparedness education activities: [www.fema.gov/txt/library/eprhb.txt](#)
- U.S. Department of Health and Human Services, Disasters and Emergencies. Lead federal agency for health and medical services within the Federal Response Plan. [HHS.gov](#)
- Administration on Aging. Resources, Eldercare Locator, MOU with Red Cross. [Eldercare Locator](#)
- Center for Disease Control and Prevention, Public Health, and Emergency Preparedness and Response. Information and resources. [CDC Emergency Preparedness and Response](#).
- US Department of Agriculture (USDA), Food Safety Inspection Service (FSIS) Homeland Security Council. Guidance for consumers, professionals on food security, emergency preparedness. [Food Defense | Food Safety and Inspection Service](#)
- USDA, Food and Nutrition Service, Food Distribution Division. Supplies food to disaster relief organizations for mass feeding or household distribution. [FNS Disaster Assistance | USDA-FNS](#)
- US Department of Transportation (USDOT), Office of Emergency Transportation. Coordinated crisis management for multimodal transportation emergencies. [DOT Emergency Preparedness, Response, and Recovery Information | US Department of Transportation](#)

- Small Business Administration (SBA). Information on disaster recovery, SBA Loans, IFG Grants; Financial assistance for older disaster applicants.
[Prepare for emergencies](#)
- How to Apply for SBA Disaster Loan Assistance after a Declared Disaster.
[SBA Disaster Loan Application](#)

11 Personnel Requirements

11.1 Staff Orientation and Training Requirements

Providers should employ adequate staff to assure satisfactory performance of all services, and provide opportunities for volunteers. Hiring practices should assure the safety of the vulnerable older adult participants.

The major objective of a staff training program is to create employee awareness and understanding of food service safety and sanitation concepts, which serves to protect the health of the participants and the workers (*See Appendix 27: Sample Job Description*).

Newly hired staff and volunteers should receive orientation training to the facility within one month of starting. Continuous staff training is necessary to ensure that staff are knowledgeable and skilled in handling food safely and effectively.

Training must be provided to all food service staff, volunteers and home delivery meal drivers, every quarter. Training plans should be developed every year and kept on file. The training plans should be tailored to meet the needs and requests of staff, and the materials should come from reputable sources. They should cover topics like food safety, sanitation, personal hygiene, chemical use, food preparation and service, customer relations, and menu planning. In addition, employee files should include training documentation.

Additional training topics may include:

- Portion control;
- Food preparation;
- Food safety and sanitation;
- Food delivery;
- Prevention of Foodborne illness;
- Equipment operation; and
- Nutrition service standards.

Staff and volunteers should be allowed to attend training outside their organizations when necessary.

11.2 Fingerprinting and Central Registry Background Check

Any individual that contracts with the Department of Economic Security to provide direct services to juveniles or vulnerable adults is required to undergo a central registry background check and fingerprint clearance. Individuals must certify whether or not they have a criminal history which would prevent the issuance of a fingerprint clearance card.

Application forms for Fingerprint Clearance Cards are obtained from the Arizona [Department of Public Safety \(DPS\)](#) website. Employees with expired Fingerprint Clearance Cards must submit a renewal application to DPS. Copies of applications must be kept on file for review by DAAS.

Application form for Central Registry Background Checks (Form CSO-1083C) is obtained from the [Arizona Department of Child Safety's website](#).

11.3 New Employee and Annual Tuberculosis (TB) Testing

Employees may be required to test negative for TB before they begin work and once annually, thereafter, within every 12-month period. All TB records must be handled according to HIPAA regulations.

12 Reports and Fiscal Management

12.1 Programmatic Reports

DAAS enforces the planning, coordination, evaluating, and reporting requirements of the OAA as well as the Terms and Conditions of other grants, such as the State Health Insurance Assistance Program. DAAS, through the AAAs collect statistical data and analyze the information regarding the effectiveness of program delivery. Data collected is then reported through systems such as the ACL OAA Performance System (OAAPS) and National Ombudsman Reporting System.^{53 54}

AAAs should be targeting services to older individuals with the greatest economic need and the greatest social need, particularly those with lower incomes, those living in rural areas, people with low incomes, those with frailty, and those with limited English ability (*refer to footnote 3*).

Nutrition program information, including non-client information, is reported in DAARS. AAAs require providers to calculate the CNG and HDM meals they provide to clients on their monthly service records.

The programmatic monthly report shall be submitted to DAAS by the 30th day of the following month, unless otherwise specified. DAAS may require a AAA to submit additional reports beyond those specified in policies and scopes of work.⁵⁵

12.2 Audits and Assessments

AAAs must conduct annual assessments of service providers to ensure compliance with requirements, standards, and regulations. Additional audits and monitoring may occur from other sources.

12.3 Response to Monitoring Reports

Providers must respond in writing to the AAAs within 30 days of being notified of a deficiency in the services they provide. If applicable, corrective action should be included in their response (*refer to footnote 5*).

53 ACL Administration for Community Living (n.d.). *Performance of Older Americans Act Programs*.

54 National Consumer Voice, The National Long-Term Care Ombudsman Resource Center. *National Ombudsman Reporting System (NORS)*.

55 DAAS (Chapter 1000 - Reporting 1600).

13 Appendix

Appendix 1: USDA Daily Meal Plan

Amounts of various food groups that are recommended each day or each week in the USDA Food Guide (amounts are daily unless otherwise specified) at the 2,000-calorie level for adults age 60 or older. Also identified are equivalent amounts for different food choices in each group. To follow the eating pattern, food choices over time should provide these amounts of food from each group on average.

Sample USDA Daily Food Guide at the 2,000-Calorie Level

*Vegetable and Protein Foods Subgroups are per week

Food Group	USDA Food Guide Amount (b)	Equivalent Amounts
Fruit Group	2 cups (4 servings)	½ cup equivalent is:
		½ cup fresh, frozen, or canned fruit, 1 med fruit
		¼ cup dried fruit
		USDA: ½ cup fruit juice

Food Group and Subgroups	USDA Food Guide Amount (b)	Equivalent Amounts
Vegetable Group	2.5 cups (5 servings daily)	½ cup equivalent is:
• Dark green vegetables	1.5 cups/week	½ cup of cut-up raw or cooked vegetable
• Red/Orange vegetables	5.5 cups/week	
• Beans, Peas, Lentils	1.5 cups/week	1 cup raw leafy vegetable
• Starchy vegetables	5 cups/week	1/2 cup vegetable juice
• Other vegetables	4 cups/week	

Food Group and Subgroups	USDA Food Guide Amount (b)	Equivalent Amounts
Grain Group	6 ounce-equivalents	1 ounce-equivalent is:
• Whole grains	3 ounce-equivalents	1 slice bread
• Other grains	3 ounce-equivalents	1 cup dry cereal
		½ cup cooked rice, pasta, or cereal

Appendix 1 (Continued)

Food Group	USDA Food Guide Amount (b)	Equivalent Amounts
Dairy Group	5.5 ounce-equivalents	1 ounce-equivalent is:
Meat, poultry eggs	26oz/week	1 ounce of cooked lean meats, poultry, fish 1 egg
Seafood	8oz/week	1 Tbsp peanut butter, ½ oz nuts or seeds, ¼ cup tofu
Nuts, seeds, tofu	5oz/week	

Food Group	USDA Food Guide Amount (b)	Equivalent Amounts
Dairy Group	3 cups low fat dairy	1 cup equivalent is:
		1 cup low-fat/fat-free milk, yogurt
		1 ½ oz of low-fat or fat-free natural cheese
		2 oz of low-fat or fat-free processed cheese

Food Group	USDA Food Guide Amount (b)	Equivalent Amounts
Oils	27 grams (6 tsp)	1 tsp equivalent is:
		1 Tbsp low-fat mayo
		2 Tbsp light salad dressing
		1 tsp vegetable oil

Food Group	USDA Food Guide Amount (b)	Equivalent Amounts
Discretionary Calorie Allowance	240 calories	1 Tbsp added sugar equivalent is:
		1 Tbsp jelly or jam ½ oz jelly beans, 8 oz lemonade

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Appendix 2: AAA Meal Pattern and Sample Menus

Table 1: Recommended Meal Pattern	
Protein	2-3 ounces
Vegetables	(½ cup) Servings (subgroups referenced below)
Grains	2 Servings/1 oz equiv. (at least 1 as Whole Grain)
Fruit	1 Serving (¾ cup)
Milk	2%, 1% or Skim, 8 ounces
Fat	1 serving (1-2.5 tsp monounsaturated oil or 1 tsp of solid fat)
*Dessert	*Extra Item, 2 Times/Week (optional)

Fruit may be fresh; water packed, juice packed or in light syrup. Heavy syrup packs should not be used.

Full strength (100%) vegetable or fruit juices may be substituted occasionally, particularly when needed to meet vegetable or fruit requirements. Partial strength or simulated fruit juices or drinks, even when fortified, may not count as a vitamin or fruit source (*refer to footnote 5*).

Following the guidelines at the reference 2,000-calorie, fruit and vegetable subgroups should be served weekly.

Dark green vegetables	2-3 servings/week
Orange vegetables	2 servings /week
Legumes (dried beans, peas)	2 servings/week
Starchy vegetables	2-3 servings /week
Other vegetables	2-3 servings /week (Can use vegetable blends)
Fruits	5 servings/week (¾ cup portion)

Based on the DGA's amount for a reference 2000 calorie diet; each meal must contain at least 2-ounce equivalents of grain products, one of which must be a whole grain.

Based on the USDA Food Guide amount for a reference 2000 calorie diet; each meal must contain at least 8 ounces (1 cup or ½ pint) of fortified fat free skim or low-fat milk or the equivalent such as yogurt, frozen yogurts, dairy desserts, cheeses (except cream cheese), including lactose-free and lactose-reduced products. All milk shall contain the equivalent of 5,000 IU of vitamin A and 400 IU of vitamin D per quart (refer to footnote 9). Table 7a illustrates equivalent dairy food sources of calcium ranked by milligrams of calcium per standard amount and calories in the standard amount. All milk products must be pasteurized and comply with grade A standards as required by the FDA (*Refer to footnote 9*).

Powdered milk is acceptable for use when added to a recipe during cooking. Reconstituted powdered milk is acceptable as a beverage when reconstituted at a temperature of 40 degrees F or lower, in single portions for immediate consumption unless otherwise prohibited by the authority having jurisdiction (*Refer to footnote 9*).

Note: For a kosher meal, it is recommended that 8 ounces (8 oz.) of milk or any of the above substitutions be served as a snack within the culturally accepted time-period.

Each meal may contain between 2 – 4 tsp of oil in the preparation of foods and may include one teaspoon of solid fat in the form of fortified margarine or butter if necessary to increase the palatability and acceptability of the meal or in the preparation of food or included as part of the discretionary calories. (DGAs 2020-25) Per the DGAs, it is recommended that a mono or polyunsaturated fat be used such as olive, canola or avocado oil or spreads.

Each meal may contain between 90 and 240 additional discretionary calories. The sources of these calories can be derived from between 1 – 2 ½ tsp. solid fats and/or 2 ½ - 6 tsp. sugar daily.

*Discretionary calorie desserts should be limited to once or twice a week. (Note: Desserts cannot replace the fruit requirement with one exception);

*Incorporating a ¾ cup fruit in a dessert recipe such as apple crisp or strawberry shortcake may be counted as a full serving of fruit.

Sample AAA Lunch Menus

Food Group	GRAIN	VEGETABLE	FRUIT	MILK	MEAT & BEANS
Servings for 500-700 calorie meals	2 oz equivalents	2 – ½ cup servings	1 – ¾ cup servings	1 cup	2.0 oz equivalents
DAY 1	2 oz equivalents				
Roast Turkey Baked Sweet Potato Whole Wheat Roll Apple Raisin Crisp Fat-free Milk	(1 small roll ½ cup topping on crisp)	2 servings (sweet potato)	1 serving (Apple in crisp)	1 cup	2 oz equivalents (Roast turkey)
DAY 2	2 oz equivalents				
Latin Roasted Pork ½ C Cuban Style Black Beans ½ C Rice 1 C Garden Salad w/ Italian dressing 1 cup strawberries with 2 graham crackers Fat-free Milk + Coffee/Tea	(½ cup rice 2 graham crackers)	2 servings (black beans, garden salad)	1 serving (strawberries)	1 cup	2 oz equivalents (Roasted pork)
DAY 3	2 oz equivalents				
Beef lasagna Roll ¾ C Broccoli Waldorf Salad on Bed of Greens Fat-free Milk + Coffee / Tea	(1 roll ½ cup pasta)	2 servings (broccoli, greens)	1 serving (apple, raisins)	1 cup	2 oz equivalents (Beef)
DAY 4	2 oz equivalent				
Stewed Chicken with 1 C Vegetables (broccoli, carrots) Egg Noodles 5-Bean Salad Fresh Fruit with Yogurt Dip Fat-free Milk + Coffee/Tea	1 cup noodles	2 servings (carrots, broccoli (veg in soup))	1 serving (½ C fresh fruit)	1 cup	3 oz equivalents (2 oz chicken ½ cup beans)
DAY 5	2 oz equivalents				
Baked Salmon Wild Rice 1 C Creamed Spinach Whole Wheat Roll Fresh Fruit - Melon Ball Salad Fat-free Milk + Coffee/Tea	½ cup rice 1 small roll	2 serving (1 cup cooked spinach)	1.5 serving (½ C melon ball salad)	1 cup	2 oz equivalents

Revised September 2021

Appendix 3: Dietary Reference Intakes

Nutrient Values for Meal Planning and Evaluation			
	1 meal/day 33% RDA/AI	2 meals/day 67% RDA/AI	3 meals/day 100% RDA/AI
Macronutrients			
Calorie level	660	1340	2000
Protein (15-35% of Calories, g/day)	15-35% of kcals 25-58g	15-35% of kcals 50-117g	15-35% of kcals 50-175g/day
Carbohydrate 45-65% of calories, g/day)	45-65% of kcals 74-107g	45-65% of kcals 150-218g	45-65% of kcals 225-325g
Fat (% of kcal, g/day)	23	46	68
Saturated Fat (<10% of total Kcal)	Limit Intake		
Fiber (g/day)	10	20	30
Vitamins			
Vitamin A**(ug) (3)	300	600	900
Vitamin C (mg) (3)	30	60	90
Vitamin D (ug) (3)	5*	10*	15*
Vitamin E (mg)	5	10	15
Thiamin (mg) (3)	0.40	0.80	1.20
Riboflavin (mg) (3)	0.43	0.86	1.30
Vitamin B6 (mg) (3)	0.57	1.13	1.70
Folate (ug)	133	267	400
Vitamin B12 (ug)	0.79	1.61	2.4
Minerals			
Calcium (mg)	400*	800*	1200*
Copper (ug)	300	600	900
Iron (mg)	2.70	5.30	8.00
Magnesium (mg) (3)	140	280	420
Zinc (mg) (3)	3.70	7.30	11.00
Electrolytes			
Potassium (mg) (7)	1566	3133	4700
Sodium (mg) (7)	<766	<1533	<2300

* RDAs are in **bold type** and Adequate Intakes (AIs) are in ordinary type followed by an asterisk (*).

**Vitamin A should be provided from vegetable-derived (carotenoid) sources.

(1) Value for 75 year old male, height of 5'7", "low active" physical activity level (PAL). Using Estimated Energy Requirements (EER) for Men and Women 30 Years of Age, calculated the median BMI & calorie level for men and subtracted 10 kcal/day (from 2504 kcal) for each year of age above 30.

(2) The RDA for protein equilibrium in adults is a minimum of 0.8g protein/kg body weight for reference body weight.

(3) Used highest DRI value for ages 51+ and male and female.

(4) Acceptable Macronutrient Distribution Ranges (AMDRs) for intakes of carbohydrates, proteins, and fats are expressed as percent of total calories. The AMDR for protein is 10-35%, carbohydrate is 45-65%, total fat is 20-35%.

(5) The RDA for carbohydrates is the minimum adequate to maintain brain function in adults.

(6) Because the percent of energy that is consumed as fat can vary greatly while still meeting daily energy needs, an AMDR is provided in the absence of an AI, EAR, or RDA for adults.

(7) Recommendations from the *Dietary Guidelines for Americans 2005*.

(8) *Saturated fats, trans fatty acids, and dietary cholesterol have no known beneficial role in preventing chronic disease and are not required at any level in the diet. The recommendation is to keep intake as low as possible while consuming a nutritionally adequate diet, as many of the foods containing these fats also provide valuable nutrients.*

Institute of Medicine, Food and Nutrition Board. Dietary Reference Intakes for Energy, Carbohydrates, Fiber, Fat, Fatty Acids, Cholesterol, Protein, and Amino Acids. Washington, DC: National Academy Press; 2002 (refer to footnote 3).

Appendix 4: MyPlate for Older Adults⁵⁶

MyPlate for Older Adults

Fruits & Vegetables

Whole fruits and vegetables are rich in important nutrients and fiber. Choose fruits and vegetables with deeply colored flesh. Choose canned varieties that are packed in their own juices or low-sodium.

Healthy Oils

Liquid vegetable oils and soft margarines provide important fatty acids and some fat-soluble vitamins.

Herbs & Spices

Use a variety of herbs and spices to enhance flavor of foods and reduce the need to add salt.

Fluids

Drink plenty of fluids. Fluids can come from water, tea, coffee, soups, and fruits and vegetables.

Grains

Whole grain and fortified foods are good sources of fiber and B vitamins.

Dairy

Fat-free and low-fat milk, cheeses and yogurts provide protein, calcium and other important nutrients.

Protein

Protein rich foods provide many important nutrients. Choose a variety including nuts, beans, fish, lean meat and poultry.

Remember to Stay Active!

56 Tufts, Jean Mayer USDA Human Nutrition Research Center on Aging (n.d.). *MyPlate for Older Adults*.

The Guidelines

Make every bite count
with the *Dietary Guidelines for Americans*. Here's how:



Dietary Guidelines for Americans, 2020-2025

Appendix 6: 2020-2025 Diet and Health Across Lifespan

The Science Underlying the *Dietary Guidelines* Demonstrates That Healthy Eating Across the Lifespan Can Promote Health and Reduce Risk of Chronic Disease

Birth Through 23 Months

- Lower risk of overweight and obesity
- Lower risk of type 1 diabetes
- Adequate iron status and lower risk of iron deficiency
- Lower risk of peanut allergy
- Lower risk of asthma



Women Who Are Pregnant or Lactating

- Favorable cognitive development in the child
- Favorable folate status in women during pregnancy and lactation



Children and Adolescents

- Lower adiposity
- Lower total and low-density lipoprotein (LDL) cholesterol



Adults, Including Older Adults

- Lower risk of all-cause mortality
- Lower risk of cardiovascular disease
- Lower risk of cardiovascular disease mortality
- Lower total and LDL cholesterol
- Lower blood pressure
- Lower risk of obesity
- Lower body mass index, waist circumference, and body fat
- Lower risk of type 2 diabetes
- Lower risk of cancers of the breast, colon, and rectum
- Favorable bone health, including lower risk of hip fracture



NOTE: The 2020 Dietary Guidelines Advisory Committee examined the evidence on diet and health across the lifespan. Evidence is not available for all combinations of exposures and outcomes for the population subgroups presented in this figure. The Committee rated the evidence on diet and health as Strong, Moderate, Limited, or Grade Not Assignable. Only outcomes with Strong or Moderate evidence are included in this table.

See the [Committee's Report](#) for specific graded conclusion statements.



Appendix 7: Food Sources of Vitamin A

Food Sources of Vitamin A ranked by micrograms Retinol Activity Equivalents (RAE) of vitamin A per standard amount; this also includes calories in the standard amount.

Food, Standard Amount	Vitamin A (µg RAE)	Percent Daily Value
Beef liver, pan fried, 3oz	6582	731
Sweet potato, baked with skin, 1 whole	1403	156
Spinach, frozen, boiled, ½ cup	573	64
Pumpkin, canned, ½ cup	953	105
Carrots, cooked from fresh, 1/2 cup	671	51
Ice cream, french vanilla, soft serve, 1 cup	278	31
Cheese, ricotta, part skim, 1 cup	263	29
Herring, Atlantic, pickled, 3 oz	219	24
Mixed vegetables, canned, ½ cup	474	22
Milk, fat free or skim, with added vitamin A and D, 1 cup	149	17
Peppers, sweet, raw, red, ½ cup	117	13
Mangos, raw, 1 whole	112	12
Breakfast cereals fortified with 10% of the DV of Vitamin A, 1 serving	90	10
Egg, hard boiled, 1 lg	75	8
Broccoli, boiled, ½ cup	60	7
Salmon, cooked, 3oz	59	7
Tomato juice, canned, ¾ cup	42	6

*DV = Daily Value. FDA developed DVs to help consumers compare the nutrient contents of foods and dietary supplements within the context of a total diet. The DV for vitamin A is 900 mcg RAE for adults and children age 4 years and older [8], where 1 mcg RAE = 1 mcg retinol, 2 mcg beta-carotene from supplements, 12 mcg beta-carotene from foods, 24 mcg alpha-carotene, or 24 mcg beta-cryptoxanthin. FDA does not require food labels to list vitamin A content unless vitamin A has been added to the food. Foods providing 20% or more of the DV are considered to be high sources of a nutrient, but foods providing lower percentages of the DV also contribute to a healthful diet.

<https://ods.od.nih.gov/factsheets/VitaminA-HealthProfessional/#h3>

Appendix 8: Food Sources of Vitamin C

Food Sources of Vitamin C ranked by milligrams of vitamin C per standard amount; also calories in the standard amount.

(All provide > 20% of RDA - DA for adult men, which is 90 mg/day.)

Food, Standard Amount	Vitamin C (mg)	Calories
Guava, raw, ½ cup	188	56
Red sweet pepper, raw, ½ cup	142	20
Red sweet pepper, cooked, ½ cup	116	19
Kiwi fruit, 1 medium	70	46
Orange, raw, 1 medium	70	62
Orange juice, ¾ cup	61-93	79-84
Green pepper, sweet, raw, ½ cup	60	15
Green pepper, sweet, cooked, ½ cup	51	19
Grapefruit juice, ¾ cup	50-70	71-86
Vegetable juice cocktail, ¾ cup	50	34
Strawberries, raw, ½ cup	49	27
Brussels sprouts, cooked, ½ cup	48	28
Cantaloupe, ¼ medium	47	51
Papaya, raw, ¼ medium	47	30
Kohlrabi, cooked, ½ cup	45	24
Broccoli, raw, ½ cup	39	15
Edible pod peas, cooked, ½ cup	38	34
Broccoli, cooked, ½ cup	37	26
Sweet potato, canned, ½ cup	34	116
Tomato juice, ¾ cup	33	31
Cauliflower, cooked, ½ cup	28	17
Pineapple, raw, ½ cup	28	37
Kale, cooked, ½ cup	27	18
Mango, ½ cup	23	54

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures.

Appendix 9: Food Sources of Potassium

Food Sources of Potassium ranked by milligrams of potassium per standard amount, also showing calories in the standard amount.

(The AI for adults is 4,700 mg/day of potassium.)

Food, Standard Amount	Potassium (mg)	Calories
Sweet potato, baked, 1 potato (146 g)	694	131
Tomato paste, ¼ cup	664	54
Beet greens, cooked, ½ cup	655	19
Potato, baked, flesh, 1 potato (156 g)	610	145
White beans, canned, ½ cup	595	153
Yogurt, plain, non-fat, 8-oz container	579	127
Tomato puree, ½ cup	549	48
Clams, canned, 3 oz	534	126
Yogurt, plain, low-fat, 8-oz container	531	143
Prune juice, ¾ cup	530	136
Carrot juice, ¾ cup	517	71
Blackstrap molasses, 1 Tbsp	498	47
Halibut, cooked, 3 oz	490	119
Soybeans, green, cooked, ½ cup	485	127
Tuna, yellow fin, cooked, 3 oz	484	118
Lima beans, cooked, ½ cup	484	104
Winter squash, cooked, ½ cup	448	40
Soybeans, mature, cooked, ½ cup	443	149
Rockfish, Pacific, cooked, 3 oz	442	103
Cod, Pacific, cooked, 3 oz	439	89
Bananas, 1 medium	422	105
Spinach, cooked, ½ cup	419	21
Tomato juice, ¾ cup	417	31
Tomato sauce, ½ cup	405	39
Peaches, dried, uncooked, ¼ cup	398	96
Prunes, stewed, ½ cup	398	133
Milk, non-fat, 1 cup	382	83
Pork chop, center loin, cooked, 3 oz	382	197
Apricots, dried, uncooked, ¼ cup	378	78
Rainbow trout, farmed, cooked, 3 oz	375	144
Pork loin, center rib (roasts), lean, roasted, 3 oz	371	190
Buttermilk, cultured, low-fat, 1 cup	370	98
Cantaloupe, ¼ medium	368	47
1%—2% milk, 1 cup	366	102-122
Honeydew melon, ⅛ medium	365	58
Lentils, cooked, ½ cup	365	115
Plantains, cooked, ½ cup slices	358	90
Kidney beans, cooked, ½ cup	358	112
Orange juice, ¾ cup	355	85
Split peas, cooked, ½ cup	355	116
Yogurt, plain, whole milk, 8 oz container	352	138

Source: Nutrient values from Agricultural Research Service (ARS) Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Appendix 10: Food Sources of Calcium

Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount.

(All are > 20% of AI for adults 19-50, - 0, which is 1,000 mg/day.)

Food, Standard Amount	Calcium (mg)	Calories
Plain yogurt, non-fat (13 g protein/8 oz), 8-oz container	452	127
Romano cheese, 1.5 oz	452	165
Pasteurized process Swiss cheese, 2 oz	438	190
Plain yogurt, low-fat (12 g protein/8 oz), 8-oz container	415	143
Fruit yogurt, low-fat (10 g protein/8 oz), 8-oz container	345	232
Swiss cheese, 1.5 oz	336	162
Ricotta cheese, part skim, ½ cup	335	170
Pasteurized process American cheese food, 2 oz	323	188
Provolone cheese, 1.5 oz	321	150
Mozzarella cheese, part-skim, 1.5 oz	311	129
Cheddar cheese, 1.5 oz	307	171
Fat-free (skim) milk, 1 cup	306	83
Muenster cheese, 1.5 oz	305	156
1% low-fat milk, 1 cup	290	102
Low-fat chocolate milk (1%), 1 cup	288	158
2% reduced fat milk, 1 cup	285	122
Reduced fat chocolate milk (2%), 1 cup	285	180
Buttermilk, low-fat, 1 cup	284	98
Chocolate milk, 1 cup	280	208
Whole milk, 1 cup	276	146
Yogurt, plain, whole milk (8 g protein/8 oz), 8-oz container	275	138
Ricotta cheese, whole milk, ½ cup	255	214
Blue cheese, 1.5 oz	225	150
Mozzarella cheese, whole milk, 1.5 oz	215	128
Feta cheese, 1.5 oz	210	113

Source: Nutrient values from ARS Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in the 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Appendix 11: Non-dairy Food Sources of Calcium

Non-Dairy Food Sources of Calcium ranked by milligrams of calcium per standard amount; also calories in the standard amount. The bioavailability may vary.

(The AI for adults is 1,000 mg/day.)

Food, Standard Amount	Calcium (mg)	Calories
Fortified ready-to-eat cereals (various), 1 oz	263-1043	88-106
Soy beverage, calcium fortified, 1 cup	368	98
Sardines, Atlantic, in oil, drained, 3 oz	325	177
Tofu, firm, prepared with ½ cup nigari (b)	253	88
Pink salmon, canned, with bone, 3 oz	181	118
Collards, cooked from frozen, ½ cup	178	31
Molasses, blackstrap, 1 Tbsp	172	47
Spinach, cooked from frozen, ½ cup	146	30
Soybeans, green, cooked, ½ cup	130	127
Turnip greens, cooked from frozen, ½ cup	124	24
Ocean perch, Atlantic, cooked, 3 oz	116	103
Oatmeal, plain and flavored, instant, fortified, 1 packet prepared	99-110	97-157
Cowpeas, cooked, ½ cup	106	80
White beans, canned, ½ cup	96	153
Kale, cooked from frozen, ½ cup	90	20
Okra, cooked from frozen, ½ cup	88	26
Soybeans, mature, cooked, ½ cup	88	149
Blue crab, canned, 3 oz	86	84
Beet greens, cooked from fresh, ½ cup	82	19
Pak-choi, Chinese cabbage, cooked from fresh, ½ cup	79	10
Clams, canned, 3 oz	78	126
Dandelion greens, cooked from fresh, ½ cup	74	17
Rainbow trout, farmed, cooked, 3 oz	73	144

a) Both calcium content and bioavailability should be considered when selecting dietary sources of calcium. Some plant foods have calcium that is well absorbed, but the large quantity of plant foods that would be needed to provide as much calcium as in a glass of milk may be unachievable for many. Many other calcium-fortified foods are available, but the percentage of calcium that can be absorbed is unavailable for many of them.

b) Calcium sulfate and magnesium chloride.

Source: Nutrient values from ARS Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in the 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Appendix 12: Food Sources of Vitamin E

Food Sources of Vitamin E ranked by milligrams of vitamin E per standard amount; also calories in the standard amount.

(All provide > 10% of RDA for vitamin E for adults, which is 15 mg - tocopherol [AT]/day.)

Food, Standard Amount	AT (mg)	Calories
Fortified ready-to-eat cereals, ~1 oz	1.6-12.8	90-107
Sunflower seeds, dry roasted, 1 oz	7.4	165
Almonds, 1 oz	7.3	164
Sunflower oil, high linoleic, 1 Tbsp	5.6	120
Cottonseed oil, 1 Tbsp	4.8	120
Safflower oil, high oleic, 1 Tbsp	4.6	120
Hazelnuts (filberts), 1 oz	4.3	178
Mixed nuts, dry roasted, 1 oz	3.1	168
Turnip greens, frozen, cooked, ½ cup	2.9	24
Tomato paste, ¼ cup	2.8	54
Pine nuts, 1 oz	2.6	191
Peanut butter, 2 Tbsp	2.5	192
Tomato puree, ½ cup	2.5	48
Tomato sauce, ½ cup	2.5	39
Canola oil, 1 Tbsp	2.4	124
Wheat germ, toasted, plain, 2 Tbsp	2.3	54
Peanuts, 1 oz	2.2	166
Avocado, raw, ½ avocado	2.1	161
Carrot juice, canned, ¾ cup	2.1	71
Peanut oil, 1 Tbsp	2.1	119
Corn oil, 1 Tbsp	1.9	120
Olive oil, 1 Tbsp	1.9	119
Spinach, cooked, ½ cup	1.9	21
Dandelion greens, cooked, ½ cup	1.8	18
Sardine, Atlantic, in oil, drained, 3 oz	1.7	177
Blue crab, cooked/canned, 3 oz	1.6	84
Brazil nuts, 1 oz	1.6	186
Herring, Atlantic, pickled, 3 oz	1.5	222

Source: Nutrient values from ARS Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in the 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Appendix 13: Food Sources of Magnesium

Food Sources of Magnesium ranked by milligrams of magnesium per standard amount; also calories in the standard amount.

(All are >- 10% of RDA for adult men, which is 420 mg/day.)

Food, Standard Amount	Magnesium (mg)	Calories
Pumpkin and squash seed kernels, roasted, 1 oz	151	148
Brazil nuts, 1 oz	107	186
Bran ready-to-eat cereal (100%), ~1 oz	103	74
Halibut, cooked, 3 oz	91	119
Quinoa, dry, ¼ cup	89	159
Spinach, canned, ½ cup	81	25
Almonds, 1 oz	78	164
Spinach, cooked from fresh, ½ cup	78	20
Buckwheat flour, ¼ cup	75	101
Cashews, dry roasted, 1 oz	74	163
Soybeans, mature, cooked, ½ cup	74	149
Pine nuts, dried, 1 oz	71	191
Mixed nuts, oil roasted, with peanuts, 1 oz	67	175
White beans, canned, ½ cup	67	154
Pollock, walleye, cooked, 3 oz	62	96
Black beans, cooked, ½ cup	60	114
Bulgur, dry, ¼ cup	57	120
Oat bran, raw, ¼ cup	55	58
Soybeans, green, cooked, ½ cup	54	127
Tuna, yellow fin, cooked, 3 oz	54	118
Artichokes (hearts), cooked, ½ cup	50	42
Peanuts, dry roasted, 1 oz	50	166
Lima beans, baby, cooked from frozen, ½ cup	50	95
Beet greens, cooked, ½ cup	49	19
Navy beans, cooked, ½ cup	48	127
Tofu, firm, prepared with nigari, ½ cup	47	88
Okra, cooked from frozen, ½ cup	47	26
Soy beverage, 1 cup	47	127
Cowpeas, cooked, ½ cup	46	100
Hazelnuts, 1 oz	46	178
Oat bran muffin, 1 oz	45	77
Great northern beans, cooked, ½ cup	44	104
Oat bran, cooked, 1/2 cup	44	44
Buckwheat groats, roasted, cooked, ½ cup	43	78
Brown rice, cooked, ½ cup	42	108
Haddock, cooked, 3 oz	42	95

a) Calcium sulfate and magnesium chloride.

Source: Nutrient values from ARS Nutrient Database for Standard Reference, Release 28. Foods are from ARS single nutrient reports, sorted in descending order by nutrient content in terms of common household measures. Food items and weights in the single nutrient reports are adapted from those in the 2002 revision of USDA Home and Garden Bulletin No. 72, Nutritive Value of Foods. Mixed dishes and multiple preparations of the same food item have been omitted from this table.

Appendix 14: Food Sources of Zinc

Food Sources of Zinc ranked by milligrams of zinc per standard amount; also calories in the standard amount.

Food	mg per serving	Percent DV*
Oysters, Eastern, farmed, raw, 3 ounces	32	291
Oysters, Pacific, cooked, 3 ounces	28.2	256
Beef, bottom sirloin, roasted, 3 ounces	3.8	35
Blue crab, cooked, 3 ounces	3.2	29
Breakfast cereals, fortified with 25% of the DV for zinc, 1 serving	2.8	25
Cereals, oats, regular and quick, unenriched, cooked with water, 1 cup	2.3	21
Pumpkin seeds, roasted, 1 ounce	2.2	20
Pork, center loin (chops), bone-in, broiled, 3 ounces	1.9	17
Turkey breast, meat only, roasted, 3 ounces	1.5	14
Cheese, cheddar, 1.5 ounces	1.5	14
Shrimp, cooked, 3 ounces	1.4	13
Lentils, boiled, ½ cup	1.3	12
Sardines, canned in oil, drained solids with bone, 3 ounces	1.1	10
Greek yogurt, plain, 6 ounces	1	9
Milk, 1% milkfat, 1 cup	1	9
Peanuts, dry roasted, 1 ounce	0.8	7
Rice, brown, long-grain, cooked, ½ cup	0.7	6
Egg, large, 1 egg	0.6	5
Kidney beans, canned, ½ cup	0.6	5
Bread, whole-wheat, 1 slice	0.6	5
Fish, salmon, cooked, 3 ounces	0.5	5
Broccoli, chopped, cooked, ½ cup	0.4	4
Rice, white, long-grain, cooked, ½ cup	0.3	3
Bread, white, 1 slice	0.1	1
Cherry tomatoes, raw, ½ cup	0.1	1
Blueberries, raw, ½ cup	0.1	1

*DV = Daily Value. FDA developed DVs to help consumers compare the nutrient contents of foods and dietary supplements within the context of a total diet. The DV for zinc is 11 mg for adults and children age 4 years and older [12]. FDA does not require food labels to list zinc content unless zinc has been added to the food. Foods providing 20% or more of the DV are considered to be high sources of a nutrient, but foods providing lower percentages of the DV also contribute to a healthful diet.

<https://ods.od.nih.gov/factsheets/Zinc-HealthProfessional/#h10>

Appendix 15: Food Sources of Vitamin B6

Food Sources of Vitamin B6 ranked by milligrams of vitamin B6 per standard amount; also calories in the standard amount.

Food	mg per serving	Percent DV*
Chickpeas, canned, 1 cup	1.1	65
Beef liver, pan fried, 3 ounces	0.9	53
Tuna, yellowfin, fresh, cooked, 3 ounces	0.9	53
Salmon, sockeye, cooked, 3 ounces	0.6	35
Chicken breast, roasted, 3 ounces	0.5	29
Breakfast cereals, fortified with 25% of the DV for vitamin B6	0.4	25
Potatoes, boiled, 1 cup	0.4	25
Turkey, meat only, roasted, 3 ounces	0.4	25
Banana, 1 medium	0.4	25
Marinara (spaghetti) sauce, ready to serve, 1 cup	0.4	25
Ground beef, patty, 85% lean, broiled, 3 ounces	0.3	18
Waffles, plain, ready to heat, toasted, 1 waffle	0.3	18
Bulgur, cooked, 1 cup	0.2	12
Cottage cheese, 1% low-fat, 1 cup	0.2	12
Squash, winter, baked, ½ cup	0.2	12
Rice, white, long-grain, enriched, cooked, 1 cup	0.1	6
Nuts, mixed, dry-roasted, 1 ounce	0.1	6
Raisins, seedless, ½ cup	0.1	6
Onions, chopped, ½ cup	0.1	6
Spinach, frozen, chopped, boiled, ½ cup	0.1	6
Tofu, raw, firm, prepared with calcium sulfate, ½ cup	0.1	6
Watermelon, raw, 1 cup	0.1	6

*DV = Daily Value. The U.S. Food and Drug Administration (FDA) developed DVs to help consumers compare the nutrient contents of foods and dietary supplements within the context of a total diet. The DV for vitamin B6 is 1.7 mg for adults and children age 4 years and older [6]. FDA does not require food labels to list vitamin B6 content unless vitamin B6 has been added to the food. Foods providing 20% or more of the DV are considered to be high sources of a nutrient, but foods providing lower percentages of the DV also contribute to a healthful diet.

<https://ods.od.nih.gov/factsheets/VitaminB6-HealthProfessional/>

Appendix 16: Food Sources of Vitamin B12

Food Sources of Vitamin B12 ranked by micrograms of vitamin B12 per standard amount; also calories in the standard amount.

Food	micrograms per serving	Percent DV*
Beef liver, cooked, pan-fried, 3 ounces	70.7	2,944
Clams (without shells), cooked, 3 ounces	17	708
Nutritional yeast, fortified, from several brands (check label), about ¼ cup	8.3 to 24	346 to 1,000
Salmon, Atlantic, cooked, 3 ounces	2.6	108
Tuna, light, canned in water, 3 ounces	2.5	104
Beef, ground, 85% lean meat/15% fat, pan-browned, 3 ounces	2.4	100
Milk, 2% milkfat, 1 cup	1.3	54
Yogurt, plain, fat free, 6-ounce container	1	43
Breakfast cereals, fortified with 25% of the DV for vitamin B12, 1 serving	0.6	25
Cheese, cheddar, 1½ ounces	0.5	19
Egg, whole, cooked, 1 large	0.5	19
Turkey, breast meat, roasted, 3 ounces	0.3	14
Tempeh, ½ cup	0.1	3
Banana, 1 medium	0	0
Bread, whole-wheat, 1 slice	0	0
Strawberries, raw, halved, ½ cup	0	0
Beans, kidney, boiled, ½ cup	0	0
Spinach, boiled, drained, ½ cup	0	0

*DV = Daily Value. The U.S. Food and Drug Administration (FDA) developed DVs to help consumers compare the nutrient contents of foods and dietary supplements within the context of a total diet. The DV for vitamin B12 is 2.4 mcg for adults and children aged 4 years and older [21]. FDA does not require food labels to list vitamin B12 content unless vitamin B12 has been added to the food. Foods providing 20% or more of the DV are considered to be high sources of a nutrient, but foods providing lower percentages of the DV also contribute to a healthful diet.

<https://ods.od.nih.gov/factsheets/VitaminB12-HealthProfessional/>

Appendix 17: Food Sources of Dietary Fiber

Ranked by grams of dietary fiber per standard amount; also calories in the standard amount.

(All are >-10% of AI for adult women, which is 25 grams/day.)

Food, Standard Amount	Magnesium (mg)	Calories
Navy beans, cooked, 1/2 cup	9.5	128
Bran ready-to-eat cereal (100%), 1/2 cup	8.8	78
Kidney beans, canned, 1/2 cup	8.2	109
Split peas, cooked, 1/2 cup	8.1	116
Lentils, cooked, 1/2 cup	7.8	115
Black beans, cooked, 1/2 cup	7.5	114
Pinto beans, cooked, 1/2 cup	7.7	122
Lima beans, cooked, 1/2 cup	6.6	108
Artichoke, globe, cooked, 1 each	6.5	60
White beans, canned, 1/2 cup	6.3	154
Chickpeas, cooked, 1/2 cup	6.2	135
Great northern beans, cooked, 1/2 cup	6.2	105
Cowpeas, cooked, 1/2 cup	5.6	100
Soybeans, mature, cooked, 1/2 cup	5.2	149
Bran ready-to-eat cereals, various, ~1 oz	2.6-5.0	90-108
Crackers, rye wafers, plain, 2 wafers	5.0	74
Sweet potato, baked, with peel, 1 medium (146 g)	4.8	131
Asian pear, raw, 1 small	4.4	51
Green peas, cooked, 1/2 cup	4.4	67
Whole-wheat English muffin, 1 each	4.4	134
Pear, raw, 1 small	4.3	81
Bulgur, cooked, 1/2 cup	4.1	76
Mixed vegetables, cooked, 1/2 cup	4.0	59
Raspberries, raw, 1/2 cup	4.0	32
Sweet potato, boiled, no peel, 1 medium (156 g)	3.9	119
Blackberries, raw, 1/2 cup	3.8	31
Potato, baked, with skin, 1 medium	3.8	161
Soybeans, green, cooked, 1/2 cup	3.8	127
Stewed prunes, 1/2 cup	3.8	133
Figs, dried, 1/4 cup	3.7	93
Dates, 1/4 cup	3.6	126
Oat bran, raw, 1/4 cup	3.6	58
Pumpkin, canned, 1/2 cup	3.6	42
Spinach, frozen, cooked, 1/2 cup	3.5	30
Shredded wheat ready-to-eat cereals, various, ~1 oz	2.8-3.4	96
Almonds, 1 oz	3.3	164
Apple with skin, raw, 1 medium	3.3	72
Brussels sprouts, frozen, cooked, 1/2 cup	3.2	33
Whole-wheat spaghetti, cooked, 1/2 cup	3.1	87
Banana, 1 medium	3.1	105
Orange, raw, 1 medium	3.1	62
Oat bran muffin, 1 small	3.0	178
Guava, 1 medium	3.0	37
Pearled barley, cooked, 1/2 cup	3.0	97
Sauerkraut, canned, solids, and liquids, 1/2 cup	3.0	23
Tomato paste, 1/4 cup	2.9	54
Winter squash, cooked, 1/2 cup	2.9	38
Broccoli, cooked, 1/2 cup	2.8	26
Parsnips, cooked, chopped, 1/2 cup	2.8	55
Turnip greens, cooked, 1/2 cup	2.5	15
Collards, cooked, 1/2 cup	2.7	25
Collards, cooked, 1/2 cup	2.6	26
Peas, edible-podded, cooked, 1/2 cup	2.5	42

Source: Dietary Guidelines for Americans 2020-2025, Resources, <https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials/food-sources-select-nutrients/food-0>

Appendix 18: Whole Grain Tips for Seniors

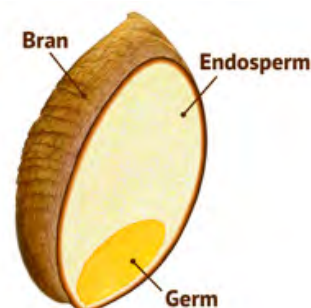


WHOLE GRAIN TIPS FOR SENIORS

Good nutrition is important at every age, and seniors who eat a wide variety of nutritious foods, including whole grains, are setting themselves up for better health.

What is a Whole Grain?

All grains start out as whole grains, but some grains are refined during processing so that parts of their original kernel are removed, stripping away much of the grain's nutrients and flavor. A grain ingredient counts as whole grain if it contains all three parts of the original kernel—the starchy endosperm, the fiber-rich bran, and the germ—in their original proportions.



How Many Servings of Grain Do Seniors Need Each Day?

Make Half—or More—of Your Grains Whole

The 2015-2020 Dietary Guidelines recommend that all Americans, including seniors, “make at least half their grains whole.”

This means most people should consume three or more servings of whole grains each day. However, four, five, even six servings of whole grains daily are not unreasonable.

Men, Ages 50+

8 total servings



at least 4 whole grain servings

Women, Ages 50+

6 total servings



at least 3 whole grain servings

Easy Ways to Eat More Whole Grains

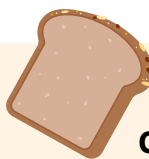
Make oatmeal for breakfast

Use brown rice instead of white rice in stir-fries or casseroles



Try whole grain pasta in place of white pasta

Add whole grains like barley or bulgur to soups and stews



Choose whole grain bread instead of white bread

Eat whole grain snacks like whole grain crackers topped with hummus



WholeGrainsCouncil.org

Whole Grain Ideas for Every Meal

Breakfast	Lunch	Snacks	Dinner
Oatmeal with fresh berries or cinnamon	Whole grain toast with smoked salmon, yogurt, and red onion	Whole grain cereal with yogurt (<i>look for low-sugar options</i>)	Whole grain pasta with a sauce and a side salad
Whole grain toast with a hard-boiled egg and fruit	Stuffed whole grain pita with hummus and veggies	Whole grain granola bar or oat bar	Black beans served with brown rice or barley and veggies
Whole grain corn grits with eggs	Whole grain veggie burger on a whole grain bun	Whole grain graham crackers	Baked fish and veggies, served with farro or brown rice

Look for the Stamp

The Whole Grain Stamp is a packaging label that helps shoppers identify products that contain significant amounts of whole grain.

The different gram amount on each Stamp tells you how many grams of whole grain are in **one serving of the product**.



Eating More Whole Grains is Linked with...¹

- Slower cognitive decline in aging
- Healthy digestion and staying “regular”
- Less inflammation
- Lower risk of type 2 diabetes
- Healthier gut microbiome
- Improved metabolism
- Lower BMI and less obesity
- Lower LDL “bad” cholesterol
- 14% lower risk of stroke
- 19-22% lower risk of heart disease
- 17% lower risk of colorectal cancer
- Overall “successful aging,” defined as the absence of disability, depression, cognitive problems, respiratory problems, and chronic disease

¹ For more information on these studies, visit: [WholeGrainsCouncil.org/whole-grains-101/health-studies](https://www.wholegrainscouncil.org/whole-grains-101/health-studies)

[WholeGrainsCouncil.org](https://www.wholegrainscouncil.org)

Appendix 19: Comparison of Flours

100 Grams of Whole-Grain Wheat Flour and Enriched, Bleached, White, All-Purpose Flour.

Some of the nutrients of concern and the fortification nutrients in 100 percent whole-wheat flour and enriched, bleached, all-purpose white (wheat) flour. Dietary fiber, calcium, magnesium and potassium, nutrients of concern, occur in much higher concentrations in the whole-wheat flour on a 100-gram basis (percent). The fortification nutrients—thiamin, riboflavin, niacin, and iron—are similar in concentration between the two flours, but folate, as Dietary Folate Equivalent (DFE), is higher in the enriched white flour.

	100 Percent Whole-Grain Wheat Flour	Enriched, Bleached, All-Purpose White Flour
Calories, kcal	339.0	364.0
Dietary fiber, g	12.2	2.7
Calcium, mg	34.0	15.0
Magnesium, mg	138.0	22.0
Potassium, mg	405.0	107.0
Folate, DFE, µg	44.0	291.0
Thiamin, mg	0.5	0.8
Riboflavin, mg	0.2	0.5
Niacin, mg	6.4	5.9
Iron, mg	3.9	4.6

https://www.dietaryguidelines.gov/sites/default/files/2021-03/Dietary_Guidelines_for_Americans-2020-2025.pdf

What's New With the Nutrition Facts Label?

The U.S. Food and Drug Administration (FDA) has updated the Nutrition Facts label on packaged foods and drinks. FDA is requiring changes to the Nutrition Facts label based on updated scientific information, new nutrition research, and input from the public. This is the first major update to the label in over 20 years. The refreshed design and updated information will make it easier for you to make informed food choices that contribute to lifelong healthy eating habits. So, what's changed?

Original Label

Nutrition Facts	
Serving Size 2/3 cup (55g) Servings Per Container 8	
Amount Per Serving	
Calories 230	Calories from Fat 72
% Daily Value*	
Total Fat 8g	12%
Saturated Fat 1g	5%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	12%
Dietary Fiber 4g	16%
Sugars 12g	
Protein 3g	
Vitamin A	10%
Vitamin C	8%
Calcium	20%
Iron	45%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily value may be higher or lower depending on your calorie needs.	
	Calories: 2,000 2,500
Total Fat	Less than 65g 80g
Sat Fat	Less than 20g 25g
Cholesterol	Less than 300mg 300mg
Sodium	Less than 2,400mg 2,400mg
Total Carbohydrate	300g 375g
Dietary Fiber	25g 30g

New Label

Nutrition Facts	
8 servings per container	
Serving size	2/3 cup (55g)
Amount per serving	
Calories	230
% Daily Value*	
Total Fat 8g	10%
Saturated Fat 1g	5%
<i>Trans Fat</i> 0g	
Cholesterol 0mg	0%
Sodium 160mg	7%
Total Carbohydrate 37g	13%
Dietary Fiber 4g	14%
Total Sugars 12g	
Includes 10g Added Sugars	20%
Protein 3g	
Vitamin D 2mcg	10%
Calcium 260mg	20%
Iron 8mg	45%
Potassium 240mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

- 1 The serving size now appears in larger, bold font and some serving sizes have been updated.
- 2 Calories are now displayed in larger, bolder font.
- 3 Daily Values have been updated.
- 4 Added sugars, vitamin D, and potassium are now listed. Manufacturers must declare the amount in addition to percent Daily Value for vitamins and minerals.



1 Serving Sizes Get Real

Servings per container and serving size information appear in large, bold font. Serving sizes have also been updated to better reflect the amount people typically eat and drink today. NOTE: The serving size is not a recommendation of how much to eat.

- The nutrition information listed on the Nutrition Facts label is usually based on one serving of the food; however some containers may also have information displayed per package.
- One package of food may contain more than one serving.

2 Calories Go Big

Calories are now in larger and bolder font to make the information easier to find and use.

2,000 calories a day is used as a guide for general nutrition advice. Your calorie needs may be higher or lower depending on your age, sex, height, weight, and physical activity level. Check your calorie needs at <https://www.choosemyplate.gov/resources/MyPlatePlan>.

3 The Lows and Highs of % Daily Value

The percent Daily Value (%DV) shows how much a nutrient in a serving of food contributes to a total daily diet. Daily Values for nutrients have been updated, which may make the percent Daily Value higher or lower on the new Nutrition Facts label. As a general guide:

- **5% DV or less** of a nutrient per serving is considered **low**.
- **20% DV or more** of a nutrient per serving is considered **high**.

The footnote at the bottom of the label has been updated to better explain %DV.

4 Nutrients: The Updated List

What information is no longer required on the label?

Calories from fat has been removed because research shows the type of fat consumed is more important than the amount.

Vitamin A and C are no longer required on the label since deficiencies of these vitamins are rare today. These nutrients can be included on a voluntary basis.

Learn more about the new Nutrition Facts label at: www.FDA.gov/NewNutritionFactsLabel

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Nutrients: The Updated List (Continued)

What information was added to the label?

Added sugars have been added to the label because consuming too much added sugars can make it hard to meet nutrient needs while staying within calorie limits. Added sugars include sugars that are added during the processing of foods (such as sucrose or dextrose), foods packaged as sweeteners (such as table sugar), sugars from syrups and honey, and sugars from concentrated fruit or vegetable juices.

Vitamin D and potassium are now required to be listed on the label because Americans do not always get the recommended amounts. Diets higher in vitamin D and potassium can reduce the risk of osteoporosis and high blood pressure, respectively.

What vitamins and minerals stayed the same?

Calcium and iron will continue to be listed on the label because Americans do not always get the recommended amounts. Diets higher in calcium and iron can reduce the risk of osteoporosis and anemia, respectively.

Make The Label Work For You

Use the label to support your personal dietary needs—choose foods that contain more of the nutrients you want to get more of and less of nutrients you may want to limit.

More often, choose foods that are:

- Higher in dietary fiber, vitamin D, calcium, iron, and potassium.
- Lower in saturated fat, sodium, and added sugars.

Choosing healthier foods and beverages can help reduce the risk of developing some health conditions, such as high blood pressure, cardiovascular disease, osteoporosis, and anemia.

Learn more about the new Nutrition Facts label at: www.FDA.gov/NewNutritionFactsLabel

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Appendix 21: Food Cooking Temperatures and Cooling Foods

165°F (for 15 seconds)	Poultry: whole or ground chicken, Turkey and duck
165°F (for 15 seconds)	Stuffing: made with potentially hazardous ingredients; stuffed meat, fish, poultry or pasta.
155°F (for 15 seconds)	Ground meat: beef, pork and other meat.
145°F (for 15 seconds)	Roasts, chops, steaks: beef, pork, veal, lamb.
165°F	Microwave cooked foods and reheated foods.
145°F (for 15 seconds)	Fish.
155°F (for 15 seconds)	Ground, chopped or minced fish.
145°F (for 15 seconds)	Eggs.

Cooling Foods

Potentially hazardous foods must be cooled from cooking or holding temperature to 70°F within two hours; and then from 70°F to 40°F or lower in the next four hours.

Cooling methods:

- Reduce large items such as roasts to a smaller density, place in shallow metal pans or containers
- Place container in ice water bath
- Place container in a blast chiller
- Stir food with an ice-filled paddle

Appendix 22: Refrigerated Storage of Foods⁵⁷

Recommended Product Temperatures (35°F to 40° F) (2 C to 5°C)

Meat	
Roasts, steaks, chops	2 to 5 days
Steaks	2 to 5 days
Chops	3 to 4 days
Ground and stewing	1 to 2 days
Variety meats	1 to 2 days
Whole ham	7 days
Half ham	3 to 5 days
Ham slices	3 to 5 days
Canned ham	9 months to 1 year
Frankfurters	1 week (2 weeks unopened package)
Bacon	5 to 7 days unopened
Luncheon meats	3 to 5 days (2 weeks unopened package)
Leftover cooked meats	1 to 2 days
Gravy, broth	1 to 2 days
Poultry	
Whole chicken, turkey, duck, goose	1 to 2 days
Giblets	1 to 2 days
Stuffing	1 day
Cutup cooked poultry	1 to 2 days
Fish	
Fresh fish	1 to 2 days
Fish (smoked)	1 to 2 days
Clams, crab, lobster (in shell)	2 days
Scallops, oysters, shrimp	1 day
Eggs	
Eggs in shell	*4 to 5 weeks beyond pack date
Leftover yolks	1 to 2 days
Leftover whites	4 days
Dried eggs (whole eggs and yolks)	Up to 1 year (un-reconstituted)
Reconstituted dried eggs	Use immediately
Cooked Dishes with eggs, meat, milk	Serve day prepared
Dairy Products	
Fluid milk	5 to 7 days after date on container
Butter	2 weeks
Hard cheese (Cheddar, Parmesan, Romano)	1 month
Soft cheese	1 week
Dry milk (nonfat)	1 year unopened
Reconstituted dry milk	1 week

Follow the guidelines below for storing food in the refrigerator and freezer. The short time limits for home-refrigerated foods will help keep them from spoiling or becoming dangerous to eat.

⁵⁷ Foodsafety.gov, 2021

Appendix 23: Storage of Frozen Foods⁵⁸

Meat	
Roasts, steaks, chops	6 to 9 months
Beef, ground and stewing	3 to 4 months
Pork, roasts and chops	4 to 8 months
Pork, ground	2 months
Lamb, roasts and chops	6 to 9 months
Lamb, ground	3 to 5 months
Veal	8 to 12 months
Variety meats	3 to 4 months
Ham, frankfurters, bacon, luncheon meats	2 weeks
Leftover cooked meats	2 to 3 months
Gravy, broth	2 to 3 months
Sandwiches with meat filling	1 to 2 months
Poultry	
Whole chicken, turkey, duck, goose	12 months
Giblets	3 months
Cutup cooked poultry	4 to 6 months
Fish	
Fresh fish	2 to 3 months
Frozen fish	3 to 6 months
Clams, lobster	3 months
Scallops, shrimp	3 months
Ice Cream	
Quality is maintained better at 10.F (12°C)	3 months; original container

⁵⁸ Foodsafety.gov (2021).

Appendix 24: Shelf Life of Dried Goods

Baking Materials	
Baking powder	8 to 12 months
Baking soda	2 years
Chocolate, baking	6 to 12 months
Chocolate, sweetened	2 years
Cornstarch	2 to 3 years
Flour, bleached	6 to 8 months
Flour	6 to 8 months
Dry milk (nonfat), unopened	1 year
Yeast, dry	18 months
Beverages	
Coffee, cans	2 years
Coffee, ground (not vacuum packed)	2 weeks
Coffee, instant	8 to 12 months
Tea, bags	1 year
Tea, loose	12 to 18 months
Tea, instant	8 to 12 months
Canned Goods	
Fruits (in general)	1 year
Fruits, acidic (citrus, berries, sour cherries)	6 to 12 months
Fruit juices	6 to 9 months
Seafood (in general)	1 year
Pickled fish	4 months
Soups	1 year
Vegetables (in general)	1 year
Vegetables, acidic (tomatoes, sauerkraut)	7 to 12 months
Dairy Foods	
Cheese, parmesan (grated)	10 months
Milk condensed	1 year
Milk, evaporated	1 year
Nondairy creamer	9 months
Dairy Foods	
Mayonnaise	2 months
Shortening, solid	8 months
Salad dressings	10 to 12 months
Salad oil	6 to 9 months

Grains & Grain Products	
Cereal grains	6 months
Cereals, ready to eat	6 to 12 months
Dried bread crumbs	6 months
Macaroni, spaghetti, and other dry pasta	2 years
Rice, white	2 years
Rice, flavored or herb	6 months
Seasonings	
Flavoring extracts	2 years
Monosodium glutamate	Indefinite
Mustard, prepared	2 to 6 months
Salt	Indefinite
Sauces (steak, soy, etc.)	2 years
Spices and herbs (whole)	2 years to indefinite
Paprika, chili powder, cayenne	1 year
Seasoning salts	1 year
Vinegar	2 years
Sweeteners	
Sugar, granulated	2 years
Sugar confectioners	18 months
Sugar, brown	4 months
Syrups, corn, honey, molasses, sugar	1 year
Miscellaneous	
Dried beans	1 to 2 years
Cookies, crackers	1 to 6 months
Dried fruits	6 to 8 months
Dried prunes	6 months
Gelatin	2 to 3 years
Ketchup	1 month
Jams, jellies	1 year
Nuts	6 months
Potato chips	1 month
Pickles, relishes	1 year

Source: *Safe Food Storage Times and Temperatures* by Marl L. Tamplin, PhD

Appendix 25: Scoop and Ladle / Spoodle Sizes, Measurements

Scoop and Ladle/Spoodle Sizes, Measurements



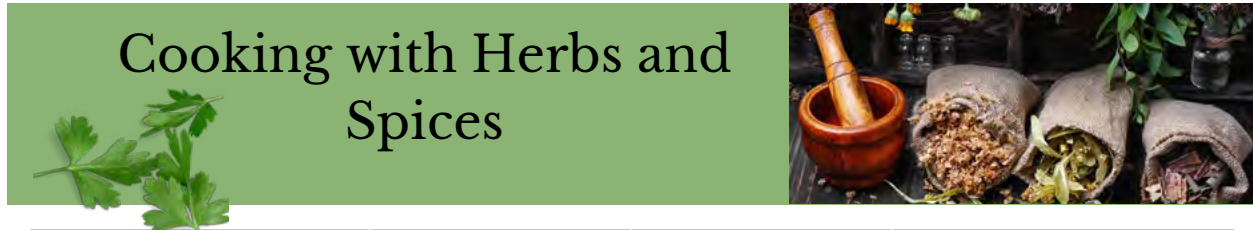
Scoop, Ladle, and Spoodle Sizes

Scoop Size	Tablespoons	Cups	Ounces	Ladle / Spoodle Sizes
6	10	2/3	5	5 oz.
8	8	1/2	4	4 oz.
10	6	3/8	3	3 oz.
12	5	1/3	2 ½ - 3	2 ½ oz.
16	4	1/4	2	2 oz.

Measurements

1 Tbsp	=	3 tsp	=	½ Fl. Oz.
¼ Cup	=	4 Tbsp.	=	2 Oz.
1/3 Cup	=	5 Tbsp.	=	1 Fl. Tsp.
½ cup	=	8 Tbsp.	=	4 Fl. Oz.
2/3 Cup	=	10 Tbsp.	=	2 Fl. Tsp.
¾ Cup	=	12 Tbsp.	=	6 Fl. Oz.
1 Cup	=	16 Tbsp.	=	8 Fl. Oz.
1 Pt.	=	2 Cups	=	16 Fl. Oz.
1 Qt.	=	2 Pt.	=	4 Cups
1 Gal.	=	4 Qts.	=	128 Fl. Oz.
1 Lb.	=	16 Oz.	=	A pint is a pound, the world around!

Appendix 26: Herbs and Spices



Herb or Spice	Flavor	Best used	Cooking Use
Allspice	Mixture of Nutmeg, Cloves & Cinnamon	Freshly Ground	Almost everything
Basil	Pungent, little sweet	Fresh	Tomato dishes, salads and many cooked vegetables
Bay	Mild	Dried	Soups, stews, tomato sauces. Remove leaf before serving
Capers	Pungent	Pickled in brine	Sauces, flavoring when pickling other foods
Caraway	Sweet, nutty	Whole	Hungarian goulash, cookies, herbal vinegars, cakes
Cayenne	Fiery hot	Dried and ground	Use sparingly, very hot
Chervil	Light, similar to parsley	Fresh or frozen	Soups, casseroles, salads, omelets
Coriander	Spicy, sweet or hot	Ground or whole	Cakes, breads, cookies
Cumin	Peppery	Whole or ground	Soups, stews, sauces
Dill	Mild, somewhat sour	Leaves, fresh	Fish, eggs, potatoes, meats, breads, salads, sauces
Ginger	Mix of pepper and sweet	Dried, ground	Cakes, breads, Asian dishes
Marjoram	Delicate	Fresh, dried	Soups, stews, marinades
Nutmeg	Warm, spicy, sweet	Freshly ground	Cakes, cookies, sweet potatoes, some vegetables
Oregano	Delicate,	Dried	Italian dishes, vegetables, soups
Rosemary	Lemony and piney, aromatic	Dried, fresh	Meat, especially lamb, fish, sauces
Tarragon	Licorice-like	Dried, fresh	Tartar sauce, cream sauces, egg dishes, seafood salads
Thyme	Minty, lemony	Dried, fresh	Stews, bland soups, stuffing, green salads, cooked vegetables
White Pepper	Similar to black but milder	Ground	As a condiment
Winter Savory	Thyme and mint	Dried	Soups, bean dishes, fish, meats



Appendix 27: Sample Job Description

YWCA of Maricopa County Job Description

Job Title: Food Service Assistant

Classification: Food Service – Non-Exempt

Position Purpose: Under direction of the cooks, you are part of the team that provides overall help in the kitchen to see that meals are prepared, packed and served or delivered in a timely and efficient manner.

General Duties include:

1. Under the direction of the cooks you will help prep food according to the menu plan.
2. Helping unload supplies; stocks food and supply pantries; freezer, helps with dishes and helps pack all the meal containers.
3. Compiles the daily meal count breakdown for delivery by utilizing the driver route sheets in order to pack the meals; communicates information to the drivers as necessary.
4. Helps maintain the kitchen equipment, cooking utensils in a clean and safe manner. Wash pots and pans, utensils, etc. as needed.
5. Participate in training workshops as applicable to the job; works as part of a team.
6. Maintain and stock flash freezer for home delivered meals.
7. Other appropriate duties as assigned by the supervisors.

Responsible to: Cooks

Requirements: Food Handlers Card; Current Drivers license and Insurance; like to work with people and have an interest in food and the senior population. Training provided.

“Clean as you go”

Appendix 28: Emergency Supply Kit



When preparing for a possible emergency situation, it's best to think first about the basics of survival: **fresh water, food, clean air and warmth.**

Recommended Items to Include in a Basic Emergency Supply Kit:

- Water, one gallon of water per person per day for at least three days, for drinking and sanitation
- Food, at least a three-day supply of non-perishable food
- Battery-powered or hand crank radio and a NOAA Weather Radio with tone alert and extra batteries for both
- Flashlight and extra batteries
- First aid kit
- Whistle to signal for help
- Dust mask, to help filter contaminated air and plastic sheeting and duct tape to shelter-in-place
- Moist towelettes, garbage bags and plastic ties for personal sanitation
- Wrench or pliers to turn off utilities
- Can opener for food (if kit contains canned food)
- Local maps

Additional Items to Consider Adding to an Emergency Supply Kit:

- Prescription medications and glasses
- Infant formula and diapers
- Pet food and extra water for your pet
- Important family documents such as copies of insurance policies, identification and bank account records in a waterproof, portable container
- Cash or traveler's checks and change
- Emergency reference material such as a first aid book or information from www.ready.gov
- Sleeping bag or warm blanket for each person. Consider additional bedding if you live in a cold-weather climate.
- Complete change of clothing including a long sleeved shirt, long pants and sturdy shoes. Consider additional clothing if you live in a cold-weather climate.
- Household chlorine bleach and medicine dropper – When diluted nine parts water to one part bleach, bleach can be used as a disinfectant. Or in an emergency, you can use it to treat water by using 16 drops of regular household liquid bleach per gallon of water. Do not use scented, color safe or bleaches with added cleaners.
- Fire Extinguisher
- Matches in a waterproof container
- Feminine supplies and personal hygiene items
- Mess kits, paper cups, plates and plastic utensils, paper towels
- Paper and pencil
- Books, games, and puzzles

https://www.ready.gov/sites/default/files/2021-02/ready_checklist.pdf

Appendix 29: Food Safety Guide for Seniors

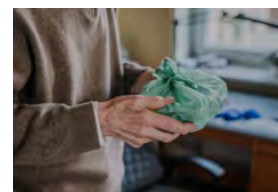
Food Safety Guide for Seniors



Food Safety Tips

- Keep it safe, refrigerate or freeze. Refrigerate or freeze all perishable foods. Refrigerator temperature should be 40 °F or less; freezer temperature should be 0 °F or less. Use a refrigerator/freezer thermometer to check the temperatures.
- Never thaw food at room temperature. Always thaw food in the refrigerator, or in cold water or in a microwave. When thawing in the microwave, you must cook the food immediately.
- Wash hands with warm soapy water before preparing food. Wash hands, utensils, cutting boards and other work surfaces after contact with raw meat and poultry. This helps prevent cross contamination.
- Never leave perishable food out of refrigeration for over two hours. If room temperature is above 90 °F, food should not be left out over 1 hour. This would include items such as take-out foods, leftovers from a restaurant meal, and meals-on wheels deliveries.
- Thoroughly cook raw meat, poultry and fish. Do not partially cook food. Have a constant heat source, and always set the oven at 325 °F or higher when cooking. There is no need to bring food to room temperature before cooking.

Foods Purchased or Delivered Hot



- **Eating Within Two Hours?**
 - Pick up or receive the food HOT...and enjoy eating within two hours.
- **Not Eating Within Two Hours?**
 - Keeping food warm is not enough. Harmful bacteria can multiply between 40° and 140 °F. Set oven temperature high enough to keep the hot food at 140 °F or above. Check internal temperature of food with a meat thermometer. Covering with foil will help keep the food moist.
- **Eating Much Later?**
 - It's not a good idea to try and keep the food hot longer than two hours. Food will taste better and be safely stored if you:
 - Place in shallow containers.
 - Divide large quantities into smaller portions.
 - Cover loosely and refrigerate immediately.
 - Reheat thoroughly when ready to eat.
- **Reheating?**
 - Reheat food thoroughly to temperature of 165 °F or until hot and steaming. In the microwave oven, cover food and rotate so it heats evenly. Allow standing time for more even heating. Consult your microwave owner's manual for recommended cooking time, power level and standing time. Inadequate heating can contribute to illness.

Source: Center for Disease Control and Prevention. *How to Prevent Food Poisoning.* 2023, April 4. <https://www.cdc.gov/foodsafety/prevention.html>

Appendix 30: Food Allergies Best Practices



Food Allergy Best Practices

1

PROVIDE FOOD ALLERGY TRAINING TO STAFF

Food Service staff with regular food allergy training feel more comfortable handling and can better serve their customers with food allergies.

2

USE SEPARATE EQUIPMENT AND PREP AREAS TO PREVENT CROSS CONTAMINATION.

If providing meals that do not contain food allergens, provide a designated area to prep and cook and use separate equipment to avoid cross contamination.

3

PROVIDE INGREDIENT LISTS OF MENU ITEMS

Keep standardized recipes with ingredient lists for all menu items. Flag recipes that contain common allergens.

4

SERVE ALTERNATIVE MEALS

Consider adding some "allergen free" entrees to your menu. These entrees would not contain the most common "Big 8" allergens: milk, egg, tree nut, peanut, soy, wheat, fish, shellfish. Search "allergen free recipes" for ideas.

5

HAVE A PLAN

Each unique Food Service operation has the capability to handle food allergies differently. However, having a plan to manage food allergies including common practices, cross contamination prevention, ingredient lists, and what to do if an allergic reaction occurs, is vital to the success of working with food allergies.

Resource: CDC - "Restaurants Can Reduce the Risk of Food Allergy Reactions".
https://www.cdc.gov/nceh/ehs/ehsnet/plain_language/reduce-food-allergy-reactions.html

FOOD ALLERGY VS FOOD INTOLERANCE

FOOD INTOLERANCE

- Occurs in the digestive system.
- Occurs when you cannot properly break down food due to enzyme deficiency, sensitivity to food additives, or reactions to chemicals in food.
- Typically not life threatening
- Signs of food intolerances may include diarrhea, vomiting, cramps, indigestion, headaches, irritability
- May be able to eat small amounts of the food without causing a problem.

FOOD ALLERGY

- Involves the immune system.
- Occurs when the immune system overreacts to a food that it thinks is an invader or allergen.
- Can be life threatening.
- Allergic responses may include hives, swelling, itchiness of the skin, vomiting, diarrhea, breathing difficulty.
- Even a tiny amount of a food can cause a serious reaction.

Resource: American Academy of Allergy, Asthma, and Immunology
<https://www.aaaai.org/tools-for-the-public/conditions-library/allergies/food-intolerance>

Appendix 31: Plant Based Diet and Menu Tips

PROVIDING PLANT BASED MEALS

Best Practices



START GRADUALLY

Begin by offering one plant based entree each week and increase as you are able. Optimally, provide one plant based meal option each day.



OFFER ALTERNATIVES FOR MEAT

Begin by replacing animal meat with alternative foods high in protein such as tofu, tempeh, beans, legumes, nuts and nut butters.



OFFER ALTERNATIVE DAIRY PRODUCTS

Consider offering alternative milk and dairy products such as soy, almond, oat, cashew, and rice milk. Try yogurt and cheese products made with alternative milks as well.



TRY NEW RECIPES AND GET FEEDBACK

Try new plant based recipes and ask for customer feedback! There are so many wonderful plant based meal options. Be creative and have fun!



PLANT BASED RECIPE WEBSITES FOR FOODSERVICE

Resources for cooking plant
based meals

- USDA National Agricultural Website: <https://www.nal.usda.gov/fnic/recipes-and-meal-planning>
- The Vegetarian Resource Group: <https://www.vrg.org/recipes/>
- Vegetarian Journal's Foodservice Update and Quantity Cooking Information: <https://www.vrg.org/fsupdate/>
- MyPlate for Vegans: <https://www.vrg.org/nutshell/MyVeganPlate.pdf>
- Mayo Clinic: Beans and other Legumes Cooking Tips: <https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/legumes/art-20044278>
- United Soybean Association: https://www.soyconnection.com/docs/default-source/brochures/2018-joy-of-soy.pdf?sfvrsn=2d338f31_6
- California Walnut Association: <https://walnuts.org/recipes/?>

Appendix 32: Nutrition Education Resources



NUTRITION EDUCATION RESOURCES

- NIH – National Institute on Aging - Healthy Eating | National Institute on Aging (nih.gov)
- Dietary Guidelines for Americans - <https://www.dietaryguidelines.gov/>
- USDA Food Guide MyPlate - <https://www.dietaryguidelines.gov/>
- USDA Food Guide MyPlate for Older Adults – <https://www.choosemyplate.gov/older-adults>
- DASH Eating Plan - <https://www.nhlbi.nih.gov/health/health-topics/topics/dash>
- Whole Grains - <http://wholegrainscouncil.org/>
- Dairy Council of Arizona - <http://www.arizonamilk.org/>
- National Dairy Council – www.nationaldairycouncil.org/
- American Dietetic Association – www.eatright.org
- Food Safety – www.foodsafety.gov
- Snap-Ed Agencies Nutrition Education Resources - <https://snaped.fns.usda.gov/nutrition-education/nutrition-education-materials>

Appendix 33: Exercise for Seniors⁵⁹



Physical activity can make daily life better.

When you're active and strong, it's easier to:



Do everyday tasks, like chores and shopping



Keep up with the grandkids



Stay independent as you get older

And it has big health benefits, too.

✓ Less pain

✓ Better mood

✓ Lower risk of many diseases

How much activity do I need?

Moderate-intensity aerobic activity

Anything that gets your heart beating faster counts.



AND



Break it up over the whole week however you want!

59 Health.gov (n.d.). *Physical Activity Guidelines for Americans*.

Appendix 34: Oral Health for Older Adults



Relationship of Oral Health and Nutrition:

- 96 percent of all adults, 65 years and older, have had a cavity.
- 2 in 3 adults, 65 years and older, have gum disease.
- 1 in 5 adults have lost all of their teeth.
- 85 percent of older adults have at least one chronic health condition.
- 60 percent of older adults have at least two chronic health conditions.
- 1 in 5 adults have untreated tooth decay.
- Adults with chronic diseases – arthritis, diabetes, heart disease, and chronic obstructive pulmonary disease (COPD) – may be more likely to develop gum disease.
- Some medications may cause dry mouth by reducing saliva, which may lead to an increased risk of cavities.

PROMOTE ORAL HEALTH BY ENCOURAGING ADULTS TO EAT THE FOLLOWING:

- Calcium-rich foods, such as low-fat or fat-free milk, yogurt, cheese, and fortified soy milk, promote strong teeth and bones.
- Phosphorus is a mineral essential for strong teeth and is found in eggs, fish, lean meat, dairy, nuts, and beans.
- Vitamin C promotes gum health and is found in citrus fruits, tomatoes, peppers, broccoli, potatoes, and spinach.



Build the foundation today!

Aging does not mean having poor oral health and tooth loss.

SIMPLE STEPS TO ENSURE ORAL HEALTH IN OLDER ADULTS:

- Brush teeth thoroughly twice a day with fluoride toothpaste and floss once a day to remove plaque.
- Drink fluoridated water, if available.
- Do not smoke or use tobacco products.
- Eat a balanced diet with fruits and vegetables.
- Limit sugary snacks and drinks.
- Limit alcohol.
- If you have diabetes, work to maintain control of your blood sugars.
- If medication causes dry mouth, ask your doctor for a different medication that may not cause dry mouth.
- If dry mouth cannot be avoided, drink plenty of water, chew sugarless gum, and avoid tobacco products and alcohol.
- Consider using an electric toothbrush to make it easier to brush teeth.
- Visit the dentist at least once a year — regardless of whether you have teeth or dentures.



Delight in Every Bite

Diet, nutrition, and oral health all impact each other. Diet can affect teeth and the tissue of the mouth and gums, which then impacts the foods and nutrients one can eat.



TIPS FOR GOOD ORAL HEALTH:

- Consume a balanced diet (fruits, vegetables, lean proteins, whole grains, and low-fat or fat-free dairy).
- Resist the urge to snack or sip on sugary treats or drinks.
- Snack wisely – make nutritious choices, such as vegetables, fruits, low-fat or fat-free yogurt, unsalted nuts, or whole-grain crackers.
- Enjoy calcium-rich foods, such as low-fat or fat-free milk, yogurt, and cheese, tofu, canned salmon, almonds, and dark green leafy vegetables.
- Get plenty of vitamin C, which promotes gum health, such as citrus fruits, tomatoes, peppers, broccoli, potatoes, and spinach.
- Drink plenty of water, with fluoride (if possible), and limit alcohol consumption.



Resources to Maintain Good Oral Health

Good oral hygiene, a healthy lifestyle, and regular dental checkups are essential steps to a healthy mouth. Dental and oral procedures should not be delayed or avoided due to the inability to pay. The following can provide options to help overcome barriers to accessing and paying for dental and oral health care:

AGING NETWORK

Organizations and committed advocates working to support older adults and people with disabilities. Visit the [Eldercare Locator](#) website or call 1-800-677-1116.

FAITH-BASED COMMUNITY ORGANIZATIONS

Some organizations provide access to health and dental care for those in need.

MEDICAID

A state-run program that provides medical benefits and, in some cases, dental benefits. Visit [Medicaid & You](#) for more.

STATE AND LOCAL RESOURCES

State and local health departments may know of additional programs that offer free or low-cost dental care.

DENTAL SCHOOLS

A good source of quality, low-cost dental care where students gain experience by providing care to patients for a reduced fee. Search for a [dental school](#).

MEDICARE

Serves those 65 and older as well as individuals of any age with disabilities. It only covers dental services related to specific medical conditions or treatments. Visit [Medicare Dental Services](#) or call Medicare at 1-800-633-4227.

COMMUNITY HEALTH CLINICS (CHCs)

The Health Resources and Services Administration (HRSA) funds CHCs that care for older adults when adults cannot pay for health services. Locate a [community health clinic](#).

DENTAL HYGIENE SCHOOLS

Offering supervised, low-cost preventative dental care from students training to be dental hygienists. Go to the [American Dental Hygienists' Association](#) website.

VETERANS ADMINISTRATION (VA)

Dental care is offered to eligible veterans at over 200 locations across the country. Visit the [VA Dental Clinic](#) to search by city, state, or postal code.

Appendix 35: Determine Your Nutritional Health (English)⁶⁰

Nutritional Health Screening Tool

Section 1

The warning signs of poor nutritional health are often overlooked.
Use this checklist to find out if you or someone you know is at nutritional risk.

- Read the statements below.
- Check the box in the YES column for those statements that apply to you or someone you know.

	YES
1. I have an illness or condition that made me change the kind and/or amount of food I eat	<input type="checkbox"/>
2. I eat fewer than 2 meals a day.	<input type="checkbox"/>
3. I eat few fruits, vegetables or milk products.	<input type="checkbox"/>
4. I have 3 or more drinks of beer, liquor, or wine almost every day.	<input type="checkbox"/>
5. I have tooth or mouth problems that make it hard for me to eat.	<input type="checkbox"/>
6. I don't always have enough money to buy the food I need.	<input type="checkbox"/>
7. I eat alone most of the time.	<input type="checkbox"/>
8. I take 3 or more different prescribed or over-the-counter drugs a day.	<input type="checkbox"/>
9. Without wanting to, I have lost or gained 10 pounds in the last 6 months.	<input type="checkbox"/>
10. I am not always physically able to shop, cook, and/or feed myself.	<input type="checkbox"/>

Section 2

1. Have you recently lost weight without trying? Yes No
If Yes, how much weight (pounds) have you lost?
 2-13 14-23 24-33 34 or more Unsure
2. Have you been eating poorly because of a decreased appetite? Yes No

Section 3

For each statement, please indicate whether the statement was often true, sometimes true, or never true for your household in the last 12 months.

1. "We worried whether our food would run out before we got money to buy more."
 Often True Sometimes True Never True
2. "The food that we bought just didn't last, and we didn't have money to get more."
 Often True Sometimes True Never True

Equal Opportunity Employer / Program • Auxiliary aids and services are available upon request to individuals with disabilities
• To request this document in alternative format or for further information about this policy, contact the Division of Aging and Adult Services at 602-542-4446; TTY/TDD Services 7-1-1 • Disponible en español en línea o en la oficina local

60 DES Documents Center - Form AG-119. To retrieve a copy, search "Form AG-119" from the [DES Documents Center](#).

FOR OFFICE USE ONLY

Provider Scoring Tool

Section 1: DETERMINE Your Nutritional Health

	YES
1. I have an illness or condition that made me change the kind and/or amount of food I eat	<input type="checkbox"/> 2
2. I eat fewer than 2 meals a day.	<input type="checkbox"/> 3
3. I eat few fruits, vegetables or milk products.	<input type="checkbox"/> 2
4. I have 3 or more drinks of beer, liquor, or wine almost every day.	<input type="checkbox"/> 2
5. I have tooth or mouth problems that make it hard for me to eat.	<input type="checkbox"/> 2
6. I don't always have enough money to buy the food I need.	<input type="checkbox"/> 4
7. I eat alone most of the time.	<input type="checkbox"/> 1
8. I take 3 or more different prescribed or over-the-counter drugs a day.	<input type="checkbox"/> 1
9. Without wanting to, I have lost or gained 10 pounds in the last 6 months.	<input type="checkbox"/> 2
10. I am not always physically able to shop, cook, and/or feed myself.	<input type="checkbox"/> 2
FINAL DETERMINE Score (add all numbers circled above)	
DETERMINE Nutrition Risk Level: <input type="checkbox"/> Low Risk (0-2) <input type="checkbox"/> Moderate Risk (3-5) <input type="checkbox"/> High Risk (6 or more)	

Section 2: Malnutrition Screening

1. Have you recently lost weight **without trying**? Yes No

If Yes, how much weight have you lost?

- 2-13 lbs. (Score 1)
- 14-23 lbs. (Score 2)
- 24-33 lbs. (Score 3)
- 34 lb. or more (Score 4)
- Unsure (Score 1)

Weight loss score _____

2. Have you been eating poorly because of a decreased appetite?

- Yes (Score 1)
- No (Score 0)

Appetite Score _____

How to Score:

MST = 0 or 1 = NOT At Risk
(Eating well with little or no weight loss)

MST= 2 or more = At Risk
(Eating poorly and/or recent weight loss)

Total Weight Loss Score + Appetite = RESULT

- NOT At Risk AT Risk

Section 3: Food Insecurity Questions

A response of "often true" or "sometimes true" to either question = a positive screen for Food Insecurity

1. "We worried whether our food would run out before we got money to buy more."

- Often True Sometimes True Never True

2. "The food that we bought just didn't last, and we didn't have money to get more."

- Often True Sometimes True Never True

RESULT

- Food Secure Food Insecure

Appendix 36: Determine Your Nutritional Health (Spanish)⁶¹

Herramienta de Evaluación de la Salud Nutricional

Sección 1

A menudo se pasan por alto las señales de advertencia de una mala salud nutricional. Utilice esta lista de verificación para averiguar si usted o alguien que conoce está en riesgo nutricional.

- Lea las declaraciones a continuación.
- Marque la casilla de la columna SÍ en aquellas declaraciones que se apliquen a usted o a alguien que conozca.

	SÍ
1. Tengo una enfermedad o condición que me hizo cambiar el tipo y/o cantidad de alimentos que como	<input type="checkbox"/>
2. Como menos de 2 veces al día.	<input type="checkbox"/>
3. Como pocas frutas, verduras o productos lácteos.	<input type="checkbox"/>
4. Tomo 3 o más tragos de cerveza, licor o vino casi todos los días.	<input type="checkbox"/>
5. Tengo problemas en los dientes o en la boca que me dificultan comer.	<input type="checkbox"/>
6. No siempre tengo suficiente dinero para comprar la comida que necesito.	<input type="checkbox"/>
7. Como solo/a la mayor parte del tiempo.	<input type="checkbox"/>
8. Tomo 3 o más medicamentos diferentes, recetados o sin receta, al día.	<input type="checkbox"/>
9. Sin querer he perdido o aumentado 10 libras en los últimos 6 meses.	<input type="checkbox"/>
10. No siempre soy físicamente capaz de comprar, cocinar y/o alimentarme.	<input type="checkbox"/>

Sección 2

1. ¿Ha perdido peso recientemente sin intentarlo? Sí No
En caso afirmativo, ¿cuánto peso (libras) ha perdido?
 2-13 14-23 24-33 34 o más No estoy seguro/a
2. ¿Ha estado comiendo mal debido a una falta de apetito? Sí No

Sección 3

Para cada declaración, indique si la declaración fue frecuentemente verdadero, a veces verdadero o nunca verdadero para su hogar en los últimos 12 meses.

1. "Nos preocupaba que se nos acabaran los alimentos antes de tener dinero para comprar más".
 Frecuentemente Verdadero A Veces Verdadero Nunca Verdadero
2. "Los alimentos que comprábamos simplemente no duraban y no teníamos dinero para comprar más".
 Frecuentemente Verdadero A Veces Verdadero Nunca Verdadero

Programa y Empleador con Igualdad de Oportunidades • Servicios y ayudantes auxiliares para personas con discapacidades están disponibles a petición • Para obtener este documento en otro formato u obtener información adicional sobre esta política, comuníquese con el División de Servicios para Adultos y Personas de la Tercera Edad al 602-542-4446; Servicios de TTY/TDD: 7-1-1 • Available in English online or at the local office

61 DES Documents Center - Form AG-119S. To retrieve a copy, search "Form AG-119S" from the [DES Documents Center](#).

SÓLO PARA USO DE LA OFICINA (FOR OFFICE USE ONLY)

Provider Scoring Tool

Section 1: DETERMINE Your Nutritional Health

	YES
1. I have an illness or condition that made me change the kind and/or amount of food I eat	<input type="checkbox"/> 2
2. I eat fewer than 2 meals a day.	<input type="checkbox"/> 3
3. I eat few fruits, vegetables or milk products.	<input type="checkbox"/> 2
4. I have 3 or more drinks of beer, liquor, or wine almost every day.	<input type="checkbox"/> 2
5. I have tooth or mouth problems that make it hard for me to eat.	<input type="checkbox"/> 2
6. I don't always have enough money to buy the food I need.	<input type="checkbox"/> 4
7. I eat alone most of the time.	<input type="checkbox"/> 1
8. I take 3 or more different prescribed or over-the-counter drugs a day.	<input type="checkbox"/> 1
9. Without wanting to, I have lost or gained 10 pounds in the last 6 months.	<input type="checkbox"/> 2
10. I am not always physically able to shop, cook, and/or feed myself.	<input type="checkbox"/> 2
FINAL DETERMINE Score (add all numbers circled above)	
DETERMINE Nutrition Risk Level: <input type="checkbox"/> Low Risk (0-2) <input type="checkbox"/> Moderate Risk (3-5) <input type="checkbox"/> High Risk (6 or more)	

Section 2: Malnutrition Screening

1. Have you recently lost weight **without trying**? Yes No
 If **Yes**, how much weight have you lost?
 2-13 lbs. (Score 1)
 14-23 lbs. (Score 2)
 24-33 lbs. (Score 3)
 34 lb. or more (Score 4)
 Unsure (Score 1) Weight loss score _____

 2. Have you been eating poorly because of a decreased appetite?
 Yes (Score 1)
 No (Score 0) Appetite Score _____
- Total Weight Loss Score + Appetite = RESULT**
 NOT At Risk AT Risk

Section 3: Food Insecurity Questions

- A response of "often true" or "sometimes true" to either question = a positive screen for Food Insecurity*
1. "We worried whether our food would run out before we got money to buy more."
 Often True Sometimes True Never True

 2. "The food that we bought just didn't last, and we didn't have money to get more."
 Often True Sometimes True Never True
- RESULT**
 Food Secure Food Insecure

Appendix 40: Water Infused Recipes



1 **Strawberry, Basil, and Lemon Water**

5 cups water, ice cubes, 1/2 cup strawberries sliced, 5 fresh basil leaves torn, 1 lemon thinly sliced.

2 **Honeydew, Cucumber, and Mint Water**

5 cups water, ice cubes, 1/2 cup honeydew cubes, 1 cucumber thinly sliced, 10 fresh mint leaves torn.

3 **Blackberries, Orange, and Ginger Water**

5 cups water, ice cubes, 1/2 pint blackberries, 1 orange thinly sliced, 1 piece of fresh ginger thinly sliced.

4 **Pineapple, Coconut, and Lime Water**

5 cups water, ice cubes, 1 cup pineapple chunks, 1 cup coconut chunks (fresh or frozen), 1 lime thinly sliced.

5 **Blueberry, Lemon, and Rosemary Water**

5 cups water, ice cubes, 1/2 cup blueberries, 1 lemon thinly sliced, 4 sprigs fresh rosemary.

Infused Water Recipes



1

Watermelon, Kiwi, and Lime Water

5 cups water, ice cubes, 1 cup watermelon cubed, 1 kiwi diced, 1 lime sliced

2

Blueberry and Orange Water

5 cups water, ice cubes, 1 thinly sliced orange with rind, 1/2 cup blueberries (fresh or frozen).

3

Grapefruit, Pomegranate, and Mint Water

5 cups water, ice cubes, 1 grapefruit thinly sliced, 1/3 cup pomegranate seeds, 8 mint leaves torn.

4

Mango, Raspberry, and Ginger Water

5 cups water, ice cubes, 1 cup mango chunks, 1 cup raspberries, 1 ginger piece (2") sliced.

5

Cherry and Lime Water

5 cups water, ice cubes, 1 cup of fresh cherries sliced in half, 1 lime thinly sliced.

Appendix 41: Four Ways to Get Good Fats



Healthy For Good™

FOUR WAYS TO GET **GOOD FATS**

Replace saturated fats with unsaturated fats as part of a healthy eating pattern. Unsaturated fats can help lower bad cholesterol and triglyceride levels, and they provide essential nutrients your body needs. Here are four easy and delicious ways to get more of the good fats.



GO FISH

Eat at least 8 ounces of non-fried fish each week, which may be divided over two 3.5- to 4-ounce servings. Choose fatty or oily fish like albacore tuna, herring, lake trout, mackerel, sardines and salmon to get essential omega-3 fatty acids.

BE NUTTY

Munch on a small handful (about 1 oz.) of unsalted nuts and seeds for good fats, energy, protein and fiber. Good choices include almonds, hazelnuts, peanuts, pistachios, pumpkin seeds, sunflower seeds and walnuts.



ADD AVOCADO

Snack, cook and bake with avocado to add healthy fats, fiber and essential vitamins and minerals.

CHECK THE OILS

Use cooking and dressing oils that are lower in saturated fat. Good choices include avocado, canola, corn, grapeseed, olive, peanut, safflower, sesame, soybean and sunflower oils.



EAT SMART **ADD COLOR** **MOVE MORE** **BE WELL**

LEARN MORE AT
[HEART.ORG/HEALTHYFORGOOD](https://www.heart.org/healthyforgood)

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Appendix 42: Food Safety During Power Outages

[FoodSafety.gov](https://www.foodsafety.gov)

Refrigerated Food and Power Outages: When to Save It and When to Throw It Out

Type of Food	Held above 40 °F for more than 2 hours
Meat, poultry, seafood	
Raw or leftover cooked meat, poultry, fish, or seafood; soy meat substitutes	Discard
Thawing meat or poultry	Discard
Salads: Meat, tuna, shrimp, chicken, or egg salad	Discard
Gravy, stuffing, broth	Discard
Lunchmeats, hot dogs, bacon, sausage, dried beef	Discard
Pizza with any topping	Discard
Canned hams labeled "Keep Refrigerated"	Discard
Canned meats and fish, opened	Discard
Casseroles, soups, stews	Discard
Cheese	
Soft cheeses: blue/bleu, Roquefort, Brie, Camembert, cottage, cream, Edam, Monterey Jack, ricotta, mozzarella, Muenster, Neufchatel, queso blanco, queso fresco	Discard
Hard cheeses: Cheddar, Colby, Swiss, Parmesan, provolone, Romano	Keep
Processed cheeses	Keep
Shredded cheeses	Discard
Low-fat cheeses	Discard
Grated Parmesan, Romano, or combination (in can or jar)	Keep
Dairy	

Type of Food	Held above 40 °F for more than 2 hours
Milk, cream, sour cream, buttermilk, evaporated milk, yogurt, eggnog, soy milk	Discard
Butter, margarine	Keep
Baby formula, opened	Discard
Eggs	
Fresh shell eggs, eggs hard-cooked in shell, egg dishes, egg products	Discard
Custards and puddings, quiche	Discard
Fruits	
Fresh fruits, cut	Discard
Fresh fruits, uncut	Keep
Fruit juices, opened	Keep
Canned fruits, opened	Keep
Dried fruits, raisins, candied fruits, dates	Keep
Sliced or shredded coconut	Discard
Sauces, Spreads, Jams	
Opened mayonnaise, tartar sauce, horseradish	Discard (if above 50 °F for more than 8 hrs)
Peanut butter	Keep
Jelly, relish, taco sauce, mustard, catsup, olives, pickles	Keep
Worcestershire, soy, barbecue, hoisin sauces	Keep
Fish sauces, oyster sauce	Discard
Opened vinegar-based dressings	Keep
Opened creamy-based dressings	Discard
Spaghetti sauce, opened	Discard
Bread, cakes, cookies, pasta, grains	
Bread, rolls, cakes, muffins, quick breads, tortillas	Keep
Refrigerator biscuits, rolls, cookie dough	Discard

Type of Food	Held above 40 °F for more than 2 hours
Cooked pasta, rice, potatoes	Discard
Pasta salads with mayonnaise or vinaigrette	Discard
Fresh pasta	Discard
Cheesecake	Discard
Breakfast foods: waffles, pancakes, bagels	Keep
Pies and pastry	
Cream filled pastries	Discard
Pies: Any with filling containing eggs or milk, e.g., custard, cheese-filled, or chiffon; quiche.	Discard
Fruit pies	Keep
Vegetables	
Fresh vegetables, cut	Discard
Fresh vegetables, uncut	Keep
Fresh mushrooms, herbs, spices	Keep
Greens, pre-cut, pre-washed, packaged	Discard
Vegetables, cooked	Discard
Tofu, cooked	Discard
Vegetable juice, opened	Discard
Baked potatoes	Discard
Commercial garlic in oil	Discard
Potato salad	Discard
Casseroles, soups, stews	Discard

Date Last Reviewed January 28, 2021

Appendix 43: Baby Boomers and Food Safety⁶²


Baby Boomers AND FOOD SAFETY

About 1 in 6 Americans will get food poisoning each year. Older adults are at an increased risk of serious complications from foodborne illness. A few simple steps can help keep the golden years pleasant for you or older adults you help care for.

What May Make You Sick?

Here's a look at some of the most common food pathogens that affect older adults and where they're found:

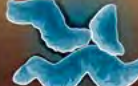
E. COLI O157:H7



Undercooked ground beef, unpasteurized milk and juices, contaminated raw fruits and vegetables, and water

Person-to-person contact

CAMPYLOBACTER




Unpasteurized (raw) milk

Raw or undercooked meat, poultry or shellfish

Untreated or contaminated water

SALMONELLA



Raw or undercooked eggs, poultry or meat


Unpasteurized (raw) milk or juice

Cheese and seafood

Fresh fruits and vegetables

Why Are You at Risk?


Older adults are at elevated risk for hospitalization and death from foodborne infections. Why?




- Medication side effects (like a weakened immune system)
- Changes in functioning of organs like liver and kidneys
- Underlying chronic conditions (such as diabetes or kidney disease)
- Age-related changes to GI tract

Product Dating

Dates printed on food labels indicate when items will no longer be at peak quality. Dates are not for safety. Here's what each one means:



"SELL BY" DATE:
Buy the product before this date. It is safe to eat after this date.










BEST IF USED BY/USE-BY:
This is the last date recommended for best flavor or quality.

To learn more visit www.fsis.usda.gov and search "product dating."

When in doubt, throw it out.





Perishable food that has been held at unsafe temperatures can cause illness, regardless of the package date.

Foods to Avoid

 <p>SOFT CHEESES made from unpasteurized milk (feta, brie, Camembert, blue-veined and queso fresco)</p>	 <p>RAW OR UNDERCOOKED MEAT, POULTRY, EGGS OR SEAFOOD</p>	 <p>UNPASTEURIZED (raw) MILK</p>	 <p>RAW SPROUTS</p>
 <p>UNWASHED FRESH VEGETABLES</p>	 <p>HOT DOGS, DELI MEATS AND LUNCHEON MEATS that have not been heated to steaming hot</p>	 <p>PATES – unpasteurized/ refrigerated pates</p>	

Safety Tips

The pathogens that cause foodborne illness can't be smelled or tasted. Proper food handling of the food you bring home is your best defense against food poisoning. *With all foods, follow these tips:*

 <p>CLEAN: Clean surfaces, utensils and hands with soap and warm water.</p>	 <p>SEPARATE: Separate raw meat, poultry and seafood from ready-to-eat foods in your grocery-shopping cart, refrigerator, and during meal prep.</p>	 <p>COOK: Cooked food is safe only after it's been heated to a high enough temperature to kill harmful bacteria. Use a food thermometer.</p>	 <p>CHILL: Chill raw and prepared foods promptly if not consuming after cooking.</p>
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For more food safety tips, go to
FoodSafety.gov

USDA IS AN EQUAL OPPORTUNITY PROVIDER AND EMPLOYER

ADDITIONAL SOURCE
<http://www.cdc.gov/features/dsfoodborneestimates/>

62 FoodSafety.gov (n.d.). *People at Risk: Older Adults.*

Appendix 44: Food Sources of Vitamin D

Food Source	Serving	Calories	Vitamin D (IU)
Rainbow Trout, freshwater	3 ounces	142	645
Salmon (various)	3 ounces	115-175	383-570
Light tuna, canned	3 ounces	168	231
Herring	3 ounces	172	182
Sardines, canned	3 ounces	177	164
Tilapia	3 ounces	108	127
Flounder	3 ounces	73	118
Soy beverage (soy milk), unsweetened	1 cup	80	119
Milk, low fat (1%)	1 cup	102	117
Yogurt, plain, nonfat	8 ounces	137	116
Yogurt, plain, low fat	8 ounces	154	116
Milk, fat free (skim)	1 cup	83	115
Kefir, plain, low fat	1 cup	104	100
Cheese, American, low fat or fat free, fortified	1.5 ounces	104	85
Mushrooms	1 cup	15-20	114-1110
Orange juice, 100%, fortified	1 cup	117	100
Almond beverage (almond milk), unsweetened	1 cup	36	107
Rice beverage (rice milk), unsweetened	1 cup	113	101

<https://www.dietaryguidelines.gov/resources/2020-2025-dietary-guidelines-online-materials/food-sources-select-nutrients/food-sources>

14 Definitions

Abuse when used in reference to a vulnerable adult, means:

- (a) Intentional infliction of physical harm.
- (b) Injury caused by criminally negligent acts or omissions.
- (c) Unlawful imprisonment, as described in section 13-1303.
- (d) Sexual abuse or sexual assault.
- (e) Emotional abuse as described 13-3626(F)(1).

CDM (Certified Dietary Manager) is defined as an individual who has completed training in leadership, nutrition, food service operations, managing personnel, food safety, HACCP, preparing for health inspection, budgeting and financial management, employee retention and recognition, and has been awarded a Specialized Diploma from an approved program recognized by the US Dietary Managers Association. A CDM must also have successfully passed a CDM certification credentialing examination and maintain continuing education requirements of the DMA and be eligible to take the registration exam.

CFR is the Code of Federal Regulations.

Chronic Disease is defined as prolonged illness that rarely undergoes spontaneous resolution or complete cure.

Dietary Reference Intakes (DRIs) are guidelines for providing nutrient value requirements for various age groups including “men and women aged 51-70 and over 70 years. The DRI values include an RDA or an Adequate Intake (AI) for nutrients with no established RDA, and a Tolerable Upper Intake Level.

- The **Recommended Dietary Allowance (RDA)** is the average daily dietary intake level that is sufficient to meet the nutrient requirement for nearly all (97-98%) healthy individuals of a specified age range and gender.
- The **Adequate Intake (AI)** is the daily dietary intake level of healthy people assumed to be adequate when there is insufficient evidence to set an RDA. It is based on observed mean nutrient intakes and experimental data. The National Academy of Sciences recommends that the Adequate Intake be used if an RDA is not available.
- The **Tolerable Upper Intake Level (UL)** is the highest daily dietary intake that is likely to pose no risk of adverse health effects to almost all individuals of a specific age range.
- The **Estimated Energy Requirement (EER)** is defined as the dietary energy intake that is predicted (with variance) to maintain energy balance in a healthy adult of defined age, gender, weight, height and level of activity, consistent with good health.

- **Acceptable Macronutrient Distribution Range (AMDR)** is defined as a range of intakes for a particular energy source (i.e., carbohydrates, proteins, fats) that is associated with reduced risk of chronic disease while providing adequate intakes of essential nutrients. The AMDR is expressed as a percentage of total energy intake because its requirement is not independent of other energy fuel sources or of the total energy requirement of the individual.

Dietitian is defined as a nutrition expert who meets all of the requirements for membership in the American Dietetic Association (ADA) and meets the following criteria: completed a minimum of a bachelor's degree at a U.S. regionally accredited university or college and course work approved by the [Commission on Accreditation for Dietetics Education \(CADE\)](#) of the American Dietetic Association (ADA); Complete a CADE - accredited supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies. and is eligible to take the registration exam.

DT (Dietetic Technician) is defined as a person who meets all of the requirements for membership in the American Dietetic Association (ADA) and is eligible to take the ADA examination for registration and meets the following criteria; “complete at least a two-year associate’s degree at a U.S. regionally accredited college or university Complete a dietetic technician program accredited/approved by the [Commission on Accreditation for Dietetics Education \(CADE\)](#) of the American Dietetic Association (ADA), including 450 hours of supervised practice experience in various community programs, health care, and foodservice facilities.

DTR (Diet Technician Registered) is a paraprofessionals who works closely with dietitians. “Their primary task is to assist the Dietitian in developing nutritional care plans, assess dietary needs, and supervise food production.” A DTR is defined as a person who meets all of the requirements for membership in the American Dietetic Association (ADA) and has earned the NDTR credential and meet the following criteria: “complete at least a two-year associate’s degree at a U.S. regionally accredited college or university Complete a dietetic technician program accredited/approved by the [Commission on Accreditation for Dietetics Education \(CADE\)](#) of the American Dietetic Association (ADA) including 450 hours of supervised practice experience in various community programs, health care, and foodservice facilities Pass a national, written examination administered by the [Commission on Dietetic Registration \(CDR\)](#). Complete continuing professional educational requirements to maintain registration.”

Disaster is “an occurrence such as hurricane, tornado, storm, flood, high water, wind-driven water, tidal wave, earthquake, drought, blizzard, pestilence, famine, fire, explosion, volcanic eruption, building collapse, transportation wreck, or other situation that causes human suffering or creates human needs that the victims cannot alleviate without assistance”.

Disease Prevention and Health Promotion Services include “health risk assessments; routine health screening, which may include hypertension, glaucoma, cholesterol, cancer, vision, hearing, diabetes, bone density, and nutrition screening; nutritional counseling and educational services for individuals and their primary caregivers; Evidence-based health promotion programs, including programs related to the prevention and mitigation of the effects of chronic disease (including osteoporosis, hypertension, obesity, diabetes, and cardiovascular disease), alcohol and substance abuse reduction, smoking cessation, weight loss and control, stress management, falls prevention, physical activity, and improved nutrition”.

Education and Training Service is a supportive service designed to assist older individuals to better cope with their economic, health, and personal needs through services such as consumer education, continuing education, health education, pre-retirement education, financial planning, and other education and training services which will advance the objectives of the Older Americans Act.

Emergency is “A serious situation or occurrence that happens unexpectedly and demands immediate action.” “A condition of urgent need for action or assistance: a state of emergency.”

Emotional abuse means a pattern of ridiculing or demeaning a vulnerable adult, making derogatory remarks to a vulnerable adult, verbally harassing a vulnerable adult or threatening to inflict physical or emotional harm on a vulnerable adult.

HACCP (Hazard Analysis Critical Control Point) Plan is “a written document that delineates the formal procedures for following the HAZARD ANALYSIS CRITICAL CONTROL POINT principles developed by The National Advisory Committee on Microbiological Criteria for Foods.”

Health Insurance Portability and Accountability Act (HIPAA) are the privacy provisions of the federal law, the Health Insurance Portability and Accountability Act of 1996 (HIPAA), applies to health information created or maintained by health care providers who engage in certain electronic transactions, health plans, and health care clearinghouses. The Department of Health and Human Services (HHS) has issued the regulation, “Standards for Privacy of Individually Identifiable Health Information”, applicable to entities covered by HIPAA. The Office for Civil Rights (OCR) is the Departmental component responsible for implementing and enforcing the privacy regulation. (See the Statement of Delegation of Authority to the Office for Civil Rights, as published in the Federal Register on December 28, 2000)

Homebound is defined as a person who is unable to leave home because of a disabling physical, emotional or environmental condition or who is unable to prepare adequate meals for themselves.

Long-term Care is any services, care, or items (including assistive devices), including disease prevention and health promotion services, in-home services, and case management service; intended to assist individuals in coping with, and to the extent practicable compensate for, functional impairments in carrying out activities of daily living; furnished at home, in a community care setting (including a small community care setting as defined in subsection (g)(1), and a large community care setting as defined in subsection (h)(1), of section 1929 of the Social Security Act (42 U.S.C. 1396t)), or in a long-term care facility; and not furnished to prevent, diagnose, treat, or cure a medical disease or condition.

Nutrition Education is defined as regularly scheduled programs such as demonstrations, audio-visual presentations, lectures, small group discussions and/or written material distributed to the clients. Their purpose is to inform individuals about available facts and information, which will promote improved food selection, eating habits, and health and nutrition practices.

Nutrition Project is defined as the recipient of a sub-grant or contract to provide nutrition services, other than the AAA, which meets applicable requirements. [Older Americans Act §321]

Nutrition Provider is an agency or organization that provides nutrition services as defined by the Older Americans Act. [Older Americans Act §311]

Nutritionist is defined as a person who has a Bachelor's or Master's degree in Food and Nutrition from an accredited institution "with education and training in nutrition science equivalent to that of a Dietitian or, an individual with comparable expertise in the planning of nutritional services", and maintains the continuing education requirements equal to or greater than a NDTR.

OAA is the Older Americans Act, established in 1965.

Registered Dietitian (RD) or Registered Dietitian Nutritionist (RDN) is defined as a nutrition expert who meets all of the requirements for membership in the American Dietetic Association (ADA), has earned the RD credential and meets the following criteria: completed a minimum of a bachelor's degree at a U.S. regionally accredited university or college and course work approved by the [Commission on Accreditation for Dietetics Education \(CADE\)](#) of the American Dietetic Association (ADA); Complete a CADE - accredited supervised practice program at a healthcare facility, community agency, or a foodservice corporation, or combined with undergraduate or graduate studies, has passed a national examination administered by the [Commission on Dietetic Registration \(CDR\)](#) and completes continuing professional educational requirements to maintain registration.

Self-directed Care is an approach to providing services (including programs, benefits, supports, and technology) under this Act intended for an older individual to assist such individual with activities of daily living, in which; such services (including the amount,

duration, scope, provider, and location of such services) are planned, budgeted, and purchased under the direction and control of such individual; such individual is provided with such information and assistance as necessary and appropriate to enable such individual to make informed decisions about his or her care options; the needs, capabilities, and preferences of such individual with respect to such services, and such individual's ability to direct and control his or her receipt of such services, are assessed by the AAA (or other agency designated by the AAA); based on the assessment made, the AAA (or other agency designated by the AAA) develops together with such individual and his or her family, caregiver, or legal representative; (i) a plan of services for such individual that specifies which services such individual will be responsible for directing; (ii) a determination of the role of family members (and others whose participation is sought by such individual) in providing services under such plan; and (iii) a budget for such services; and the area agency on aging or DAAS provides for oversight of such individual's self-directed receipt of services, including steps to ensure the quality of services provided and the appropriate use of funds under this Act.

Trans Fatty Acids or Trans Fats are unsaturated fatty acids that contain at least one non-conjugated double bond in the trans configuration. Sources of trans fatty acids include hydrogenated/partially hydrogenated vegetable oils that are used to make shortening and commercially prepared baked goods, snack foods, fried foods, and margarine. Trans fatty acids also are present in foods that come from ruminant animals (e.g., cattle and sheep). Such foods include dairy products, beef, and lamb.

Vegetarianism is the practice of avoiding meat and/or animal products. The vegan or total vegetarian diet includes only foods from plants: fruits, vegetables, legumes (dried beans and peas), grains, seeds, and nuts. The lacto vegetarian diet includes plant foods plus cheese and other dairy products. The ovo lacto vegetarian (or lacto ovo vegetarian) diet also includes eggs. The semi-vegetarian diet does not include red meat but does include chicken and fish with plant foods, dairy products, and eggs.

Vulnerable adult means an individual who is eighteen years of age or older and who is unable to protect themselves from abuse, neglect or exploitation by others because of a mental or physical impairment. Vulnerable adult includes an incapacitated person as defined in section 14-5101. Additional terms can be found on the Division of Aging and Community Services/Aging and Adult Administration "Division of Aging and Adult Services Policy and Procedure Manual, Glossary", web page.

Additional terms can be found on the Division of Aging and Community Services/Aging and Adult Administration "[Division of Aging and Adult Services Policy and Procedure Manual, Glossary](#)", web page.

15 State and County Health Codes

State of Arizona

- ARIZONA DEPARTMENT OF HEALTH SERVICES
<https://www.azdhs.gov/preparedness/epidemiology-disease-control/food-safety-environmental-services/index.php#az-food-safety-regulations>
- Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>

Apache County

- Apache County Environmental Department
<https://www.apachecountyaz.gov/Environmental-Services>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Cochise County

- County of Cochise Environmental Health Services Division
<https://www.cochise.az.gov/460/Environmental-Health-Services-Division>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Coconino County

- Coconino County Health and Human Services Environmental Health
<https://www.coconino.az.gov/229/Environmental-Health>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>

- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Gila County

- Gila County Environmental Health Services Division
https://www.gilacountyaz.gov/government/health_and_emergency_services/h/index.php
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Graham County

- Graham County Health Department Food and Sanitation
<https://www.graham.az.gov/409/Food-and-Sanitation>
<https://www.graham.az.gov/DocumentCenter/View/732/FAQ---Food-Permit-Application-Process-PDF>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Greenlee County

- Greenlee County Health and County Services Food Safety Program
<https://www.co.greenlee.az.us/departments/health-county-services>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

La Paz County

- La Paz County Environmental Health Services Food Safety
<https://reports.mysidewalk.com/069c84a027>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Maricopa County

- Maricopa County Environmental Services Food and Restaurants
<https://www.maricopa.gov/5114/Food-Restaurants>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>

Mohave County

- Mohave County Public Health Environmental Health Food Safety Program
<https://www.mohave.gov/ContentPage.aspx?id=127&cid=1613>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Navajo County

- Navajo County Public Health Services Environmental Health Arizona Administrative Codes
<https://navajocountyaz.gov/Departments/Public-Health-Services/Environmental-Health/Arizona-Administrative-Codes>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>

- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Navajo Nation

- Navajo Nation Council
<https://www.navajonationcouncil.org/wp-content/uploads/2021/04/V0030.pdf>

Pima County

- Pima County Health Department Consumer Health and Food Safety
<https://webcms.pima.gov/cms/One.aspx?portalId=169&pageId=431>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Pinal County

- Pinal County Environmental Health Services Food Safety Program
<https://www.pinal.gov/885/Food-Safety-Program>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Santa Cruz County

- Santa Cruz County Environmental Health Program Consumer Protection Food
<https://www.scceh.org/NewHome/Programs/ConsumerProtection/Food.aspx>

- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

Yuma County

- Yuma County Environmental Health Services Division
<https://www.yumacountyaz.gov/government/health-district/divisions/environmental-health-services>
- Arizona Food Code 2000 Arizona Department of Health Services Office of Environmental Health
<https://www.yumacountyaz.gov/home/showdocument?id=4397>

Yavapai County

- Yavapai County Environmental Health Division
<https://yavapaiaz.gov/chs/EH>
- Adopted - U.S. Food and Drug Administration “The 2022 Food Code”, January 18, 2023 Version.
<https://www.fda.gov/media/164194/download>
- Adopted - Arizona Food Code TITLE 9. HEALTH SERVICES
https://apps.azsos.gov/public_services/CodeTOC.htm#ID9
- CHAPTER 8: DEPARTMENT OF HEALTH SERVICES FOOD, RECREATIONAL AND INSTITUTIONAL SANITATION, ARTICLE 1. FOOD AND DRINK
https://apps.azsos.gov/public_services/Title_09/9-08.pdf

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