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**173-4-05.1 Methods for determining nutritional adequacy.**

**Comment [ODA1]:** FOR RESCISSION. Please see the proposed new version of the rule.

The provider shall offer a menu to consumers that is nutritionally adequate as determined by nutrient analysis, menu patterns, or a combination of both. "Nutrient analysis" means a process by which food, beverage, and supplement intake are evaluated for nutrient content over a specific period of time that is based upon standard references for nutrients in the component foods. "Menu pattern" means a menu-planning tool used to identify the types and amounts of foods that are recommended to meet specific nutritional requirements. Of these options, the preferred method is to determine nutritional adequacy by means of nutrient analysis.

DRI Nutrient-Value Requirements (for Nutrient-Analysis Method)

LEADER NUTRIENTS	TARGET VALUES	COMPLIANCE RANGES
Calories	700 calories	600-800 calories
Protein	19 gm	No less than 18 gm
Fat	20 gm	No more than 25 gm
Vitamin A	275 µg	No less than 210 µg
Vitamin B6	0.53 mg	No less than 0.5 mg
Vitamin B12	0.8 µg	No less than 0.7 µg
Vitamin C	28 mg	No less than 24 mg
Vitamin D	200 iu	No less than 175 iu
Calcium	400 mg	No less than 360 mg
Magnesium	125 mg	No less than 110 mg
Zinc	3.1 mg	No less than 2.75 mg
Sodium	500 mg	No more than 1100 mg
Potassium	1,567 mg	No less than 1000 mg
Fiber	9 gm	No less than 6 gm

- (A) Nutrient-analysis method: The provider shall only determine the nutritional adequacy of a meal by means of nutrient analysis if the provider complies with the following:
- (1) Software: The provider's nutrient-analysis software has been approved by the LD of the AAA with which the provider has entered into a provider agreement to provide a meal service;
  - (2) Compliance ranges:
    - (a) Per-meal: Unless the provider uses the option in paragraph (A)(2)(b) of this rule on menu averaging, each meal shall fall within the compliance ranges for the adjusted DRI nutrient-value requirements established by the "DRI Nutrient-Value Requirements" table of this rule. The target values for each leader nutrient are based upon one meal per day (one-third of the DRI) for the average older population served by the nutrition program, except for the sodium compliance ranges, which are based on the "Dietary Guidelines for Americans." When serving three meals to a consumer in one day, the target values and compliance ranges are tripled (one hundred per cent of the DRI).
    - (b) Menu averaging: The provider using the nutrient analysis option shall meet the compliance ranges for leader nutrients in the daily menu or as averaged based on the week's menu for ten out of the fourteen leader nutrients, so long as one of the ten leader nutrients is vitamin B12.

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Menu Pattern (for Menu-Pattern Method)

FOOD TYPES	BREAKFAST or BRUNCH	LUNCH or DINNER
Meat or meat alternate	1-2 servings	2-3 servings
Vegetables or fruits	2 servings	3 servings
Bread or bread alternate	2 servings	2 servings
Milk or milk alternate	1 serving	1 serving
Desserts	Optional	Optional
Fat	Optional	Optional
Accompaniments (e.g., condiments, sauces, spreads)	Optional	Optional
Beverages (e.g., water, coffee, tea)	Optional	Optional

(B) Menu-pattern method: The provider may use the menu-pattern method instead of the nutrient-analysis method that ODA recommends, but only if the provider uses the menu pattern in the "Menu Pattern" table of this rule:

(1) Double classification: Although the provider has the option to classify some individual food items as belonging to one food type or another in the "Menu Pattern" table of this rule, the provider may only classify a single serving of any individual food item in any single meal as part of one type. For example, although the provider may classify a serving of dried beans as either a meat alternate or vegetable, the provider may not classify dried beans as both a serving of a meat alternate and a vegetable in the same meal. Also, although the provider may classify cheese as either a serving of a meat alternate or a serving of a milk alternate, the provider may not classify cheese as both a serving of a meat alternate and a milk alternate in the same meal.

(2) Meat or meat alternates:

- (a) The provider shall not serve high-fat and high-sodium processed meats (e.g., hot dogs, bologna, or sausage) more than twice per month.
- (b) The provider may serve egg whites or low-cholesterol egg substitutes, but shall not serve more than one egg yolk per meal.
- (c) The provider shall serve a variety of meat and meat alternates to help meet the DRI requirements for protein, iron, vitamin B6, vitamin B12, and zinc.
- (d) The provider may serve meatless meals that contain eggs; dried beans, peas, or lentil soups; tofu-based products; or vegetarian entrées so long as the meals meet the DRI requirements for protein.
- (e) When planning a meal under the menu-pattern method, the provider may use the guidelines in the "Serving Sizes for Meat and Meat Alternates" table to this rule to determine one serving of meat or meat alternate.

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Serving Sizes for Meat and Meat Alternates

FOOD	SERVING SIZE
Cooked, lean meat, poultry, or fish	1 ounce, which is equivalent to 7 grams of protein
Cheese or processed cheese (if the processed cheese are pasteurized and nutritionally equivalent to cheese) (low-fat preferred)	1 ounce
Egg	1
Cooked, dried beans, peas, or lentils	1/2 cup
Peanut butter	2 tablespoons
Cottage cheese, low-fat	1/4 cup
Tofu	1/2 cup

(3) Vegetables and fruits:

- (a) Throughout each week, the provider shall serve a variety of fruits and vegetables, especially dark-green, orange, red, and legume items.
- (b) The provider shall consider all full-strength vegetable juices and all full-strength, unsweetened fruit juices to be vegetables and fruits.
- (c) The provider shall prefer usage of vitamin-fortified juices, low-sodium vegetable juice, or sodium-reduced tomato juice over other juices.
- (d) The provider shall consider one-half cup of cooked, dried beans, peas, or lentils; one-half cup of full-strength (i.e., one hundred per cent) sodium-reduced vegetable juice; or, one cup of raw, leafy vegetables as one serving of vegetables.
- (e) The provider shall consider a serving of soup, stew, casserole, or other combination dish a serving of a vegetable only if the soup, stew, casserole, or other combination dish contains at least one-half cup of vegetables per serving.
- (f) The provider shall prefer to use sodium-reduced soup base and tomato products over other soup bases and tomato products.
- (g) The provider shall not serve sauerkraut more than once per month, or twice per month if one occurrence of sauerkraut is as an ingredient in another food item.
- (h) The provider shall not consider rice, spaghetti, macaroni, or noodles to be a vegetable.
- (i) The provider shall consider a medium-sized apple, an orange, a pear, or a small banana; one-half cup of full-strength fruit juice; one-half cup of cranberry juice drink; or, one fourth of a cup of dried fruit to be one serving of fruit.
- (j) The provider shall consider a menu item to be a serving of fruit if one serving of the item contains at least one-half cup of fruit (e.g., fruit cobbler).
- (k) The provider shall only consider fresh fruit, frozen fruit, or canned fruit (packed in its own juice, with light syrup, or without sugar) to be fruit.

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(4) Bread or bread alternates:

- (a) The provider shall prefer to serve a variety of enriched whole-grain bread products.
- (b) The provider shall not consider starchy vegetables (e.g., potatoes, sweet potatoes, corn, yams, and plantains) to be a serving of bread or a bread alternate.
- (c) The provider shall not consider breading on meat (or a meat alternate) or on vegetables to be a serving of bread or a bread alternate.
- (d) When planning a meal under the menu-pattern method, the provider may use the guidelines in the "Serving Sizes for Breads and Bread Alternates" table to this rule to determine one serving of bread or bread alternate.

Serving Sizes for Breads and Bread Alternates

FOOD	SERVING SIZE
Animal crackers	8 crackers
Angel food cake	1/12 of cake or 2 ounces
Bagel	1 ounce or one half of a large bagel
Biscuit	One 2.5 inch diameter biscuit
Bread	1 slice
Bread dressing/stuffing	1/2 cup
Cake (unfrosted)	One 2-inch square or one ounce
Cooked cereal	1/2 cup
Crackers	4-6 crackers
English muffin	1/2 muffin
French toast	1 slice
Ginger snaps	3 snaps
Graham crackers	3 crackers that are 2.5-inch squares
Muffin, roll	1 ounce
Pancake	4-inch diameter, 1/4-inch thick
Pasta, noodles, or rice	1/2 cup
Pita	One 4-inch diameter or 1/2 6-inch diameter
Pudding (sugar free)	1/2 cup or 4 ounces
Quick bread	One 2-inch square
Ready-to-eat cereal, fortified	1 cup or 1 ounce
Sandwich bun	1 small bun or 1/2 large bun
Tortilla	1 6-inch diameter tortilla
Vanilla wafers	5 wafers
Waffle	One 4-inch square

(5) Milk or milk alternates:

- (a) The provider shall prefer to use fat-free milk, low-fat milk (i.e., milk with no more than one per cent fat content), or fortified soy beverages.

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- (b) The provider shall not consider calcium-fortified juice to be both a serving of fruit and a serving of milk in the same meal.
- (c) The provider shall not consider cheeses or tofu to be both a serving of meat alternate and a serving of milk alternative in the same meal.
- (d) When planning a meal under the menu-pattern method, the provider may use the guidelines in the "Serving Sizes for Milk and Milk Alternates" table to this rule to determine one serving of milk or milk alternate.

Serving Sizes for Milk and Milk Alternates

FOOD	SERVING SIZE
Fat-free (skim) or 1% milk, buttermilk, or chocolate milk fortified with vitamins A and D	8 ounces
Lactose-reduces or lactose-free milk	8 ounces
Yogurt, low-fat, fortified with vitamins A and D	6 ounces or 3/4 cup
Soy beverage or rice beverage enriched with calcium and vitamins A and D	8 ounces
Tofu	1/2 cup
Hard, natural cheese (prefer low-fat)	1.5 ounces
Processed cheese (prefer low-fat)	2 ounces
Juice fortified with calcium and vitamin D	8 ounces

- (6) Desserts (if provided in meal):
  - (a) The provider shall prefer to serve healthier desserts that include fruit, whole grains, low-fat products, and/or products with limited sugar content and avoid products that contain trans fats.
  - (b) The provider shall consider one-half cup of fruit and one-half cup of simple dessert (e.g., sugar-free pudding and frozen yogurt) to be a serving of dessert.
  - (c) The provider shall prefer to serve fresh, frozen, or canned fruits that are packed in juice or light syrup as a dessert item in addition to the serving of fruit that may be provided as another part of the meal.
  - (d) The provider shall prefer to not serve cakes, single-crust pies, cobblers, and cookies more than twice per week and shall avoid products that contain trans fats.
  - (e) When planning a meal under the menu-pattern method, the provider may use the guidelines in the "Serving Sizes for Breads and Bread Alternates" table to this rule to determine one serving of dessert.
- (7) Fats (if provided in meal):
  - (a) The provider shall consider one teaspoon of fortified, soft margarine; mayonnaise; or vegetable oil; or one tablespoon of salad dressing to be a serving of fat.

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(b) The provider shall not serve more than two servings of fats and oils in a meal. Fat used as an ingredient in a menu item is not counted as a serving of fat.

(8) Accompaniments (if provided in meal):

(a) Condiments: The provider shall prefer to serve mustard, ketchup, tartar sauce, or other traditional accompaniments with a meal item.

(b) Seasonings:

(i) When the provider prepares a meal, the meal must comply with the sodium limits in the federal dietary reference intakes and "Dietary Guidelines for Americans."

(ii) The provider shall prefer to provide herbal or granulated seasonings, instead of salt, for use by a consumer as an accompaniment to a meal.