



Massachusetts State Agency Food Standards Requirements and Recommendations

This document outlines standards for food purchased and meals prepared, with the goal of improving the health of individuals served by all state agencies within the Executive Department which are covered under Executive Order 509. The standards apply to those agencies within the Executive Department which provide food, whether directly or through contract, as part of the basic services provided to agency clients/patients. Exempted from EO 509 are vending machines or independent concessions that provide food *for sale* through leases, licenses or contracts at state programs. The standards are consistent with the 2010 Dietary Guidelines. As new guidelines are updated DPH will again make recommendations for enhancing the current nutrition standards. DPH is committed to reviewing the nutrition standards every two years to ensure that agencies are following the most current recommendations. Food service for employees is not included under EO 509, but we strongly encourage those agencies which have an

employee cafeteria or catered meals and snacks to follow the *Healthy Meeting and Event Guide* to ensure that healthy food options are available to employees. *The Healthy Meeting and Event Guide* can be found at <http://www.mass.gov/eohhs/docs/dph/com-health/nutrition-phys-activity/healthy-meeting-event-guide.pdf>

Implementation of EO 509:

An ad hoc state agency workgroup will review and help finalize the standards as well as guide the development of an implementation and evaluation plan.

Agencies and their contractors are expected to follow the proposed standards described in each of the following three sections:

I. Standards for Purchased Food

Addresses food items purchased by agencies and their contractors and gives specific standards by food category.

II. Standards for Meals and Snacks Served

Addresses the overall nutrient requirements that should be achieved based on the number of meals and snacks served and describes standards for snacks and special occasions.

III. Agency and Population-Specific Standards and Exceptions

Describes standards for specific populations (e.g. children, seniors) and agencies. The additions and exceptions in the third section supersede the first two sections.

For example, children under 2 years may be served whole milk, instead of low-fat (1%) or non-fat milk required in the first section.

Agencies must ensure that all purchased food items meet the standards in Section I and those meals and snacks prepared meet the nutrient requirements of Section II. The purchased food standards ensure that agencies are making healthier choices like low-fat dairy products are a regular part of people’s diets. The meal and snack standards ensure that people eating meals and snacks are eating a healthy, balanced diet.

Agency contractors, which provide meals to state-funded programs, are also required to comply with these standards. This includes both foodservice contractors and programmatic contractors that serve food within the context of their program.

Agencies are expected to be in compliance with all standards within 12 months of adoption; for a limited number of items, technical challenges in reformulation may require a longer time frame for compliance with sodium and fiber requirements. Details of these allowances are provided within the standards.

- (1) Level III: Administration and Finance, Public Safety, Housing and Economic Development, Energy and Environmental Affairs, Transportation and Public Works; Labor and Workforce Development, Health and Human Services; Education
- (2) Higher Ed and U Mass exempt); Health Care Security Trust, Board of Library Commissioners and Commission Against Discrimination.

I. Proposed Standards for Purchased Food

These standards are defined per serving of food. The serving size is based on Federal Drug Administration (FDA) established lists of "Reference Amounts Customarily Consumed per Eating Occasion" and is used on the Nutrition Facts Panel, unless otherwise noted.

	REQUIRED	RECOMMENDED
Nutrients and Food Products		
Trans fat	All products purchased contain 0 grams trans fat	
Sodium*	All individual items have ≤ 480 mg sodium per serving, unless otherwise indicated** **Snacks must have ≤ 200 mg sodium	Purchase “low sodium” (140 mg or less sodium per serving) or “reduced sodium” (original sodium level reduced by 25%) whenever feasible; all products must have 480 mg or less sodium per serving, unless noted, except for **snacks which must have ≤ 200 mg sodium.
Food products	No purchase of food products prepared by deep frying	

Food Category Standards		
Beverages	≤ 25 calories (kcal) per 8 oz for beverages other than 100% juice or milk	
	100% fruit juice	
Canned fruits	Fruit canned in its own juice. Do not purchase fruit canned in syrup.	
Dairy	Milk be low-fat (1%) or non-fat	Cheese purchases contain ≤ 215 mg sodium per serving
	Milk be ≤ 100 calories (kcal) per 8 oz ¹	Cheese purchases be low-fat
	Fluid milk substitutes (e.g. soymilk) have ≤ 100 calories (kcal) per 8 oz ¹	
	Yogurt be low-fat or non-fat	
Bread, pasta, and other grains and starches	Bread and baked goods contain ≤ 215 mg sodium per serving	Whole grain products be purchased
		Breads contain ≥ 2 g fiber per serving
Cereal	Cereal contain ≤ 215 mg sodium per serving	Cereal contain ≤ 10 g per serving of sugar
		Cereal contain ≥ 3 g fiber per serving
Canned vegetables	Canned vegetables contain ≤ 290 mg sodium per serving or have “no salt added”	
Canned and frozen tuna, salmon and other seafood	Canned and frozen seafood contain ≤ 290 mg sodium per serving or have “no salt added”	
Canned meat	Canned meat contain ≤ 480 mg sodium per serving	

¹ For children ages 2-18 years flavored milk and flavored fluid milk substitutes are permitted and **required** to be ≤ 130 calories per serving. Recommend that agencies continue to phase out flavored milk and flavored milk substitutes over time.

Portion controlled items and other convenience foods	Individual items contain \leq 480 mg sodium per serving	
Frozen whole meals	Individual meals contain \leq 800 mg sodium per meal	
Condiments		Use low-fat mayonnaise; reduced sodium soy sauce; low-sodium ketchup; and low-fat and low-sodium and low-calorie (kcal) salad dressings (as per FDA definitions)
Meat		Purchase "extra lean" beef and pork (total fat \leq 5%) and at least 90% lean ground beef
		Bacon contain \leq 290 mg sodium per serving
		Sausage contain \leq 480 mg sodium per serving

**Note regarding sodium standards for purchased food:* In some instances successful sodium reduction requires gradual change to maintain product taste and quality. If, after 6 months, an agency is purchasing non-compliant products that are essential to menu planning and that agency has demonstrated a commitment to reduce the sodium in those products, the agency may continue to purchase those products with a sodium reduction plan in place over the next three years.

Note regarding populations with religious or special dietary food needs: If an agency cannot meet required purchased food standards due to a lack of availability of food items that meet the specific needs of the population they serve (ex. packaged kosher foods), the agency is expected to find suitable replacements for these products as quickly as is feasible. The agency will provide a list of those products as part of the monitoring system (progress reports and annual survey of status).

II. Proposed Standards for Meals and Snacks Served

State agencies must adhere to outlined standards and must have a plan for regular menu review to ensure that they accomplish specified nutrient content goals. Outlined in this section are standards for Nutrition, Meals Served, and Snacks Served.

Required Nutrient Standards

These standards are already used by many state agencies and are consistent with the United States Department of Agriculture's (USDA) *2010 Dietary Guidelines for Americans*.

Nutrient	Adult (RDA or AI)
Calories (kcal)	2,000 kcal ²
Sodium* #	1,500** - 2,300 mg
Sodium (< 19 years)	< 2,200 mg
Sodium (> 50 years)	< 1,500 mg
Fat	≤ 30% of kcal
Saturated Fat	< 10% of kcal
Fiber	> 28g ³
Recommend the following daily nutrient standards.	
Protein	10-35% of kcal
Carbohydrate	45-65% of kcal
Cholesterol*	< 300 mg
Potassium	4,700 mg
Calcium	1,000 mg
Iron	> 8mg (18mg F; 8mg M)

*Daily limit, regardless of total calorie (kcal) intake

** 1500 mg sodium for "special populations" which is defined as persons who are 51 and older and those of any age who are African American or have hypertension, diabetes, or chronic kidney disease.

Standards for agencies serving only one or two meals per day:

- Each meal served meets appropriate range of calories (kcal), sodium and fiber: 25-30% for breakfast; 30-35% for lunch; 30-35% for dinner.⁴

² Agencies serving the correctional population, **require** calories be kept to < 2,200 kcal for women and < 2,800 kcal for men.

³ **Require** fiber be ≥ 25g per day for agencies serving populations with a majority of children 4 to 19 years old. For agencies serving children 1-4 years old, **require** fiber ≥ 19g per day. These daily requirements are for agencies serving 3 meals per day. Agencies serving less than 3 meals should follow the appropriate range for fiber per meal.

⁴ The Department of Education, which has federal standards for minimum amount of calories served, may serve up to 785 calories for lunch for grades 7-12 (in line with National School Lunch Program).

Note regarding sodium and fiber meal standards: If an agency cannot meet the required nutrition standard for sodium or fiber, upon adoption of the standards, it is expected to meet the standard as quickly as is feasible, but in no more than 3 years.

Recommended Nutrient Standards

Recommend potassium, calcium, and iron amounts are proportional to calories (kcal) served.

	REQUIRED	RECOMMENDED
Fruits and vegetables	Minimum of two servings per meal for lunch and dinner	Substitute canned fruits and vegetables with fresh or frozen
	Minimum of five servings per day for agencies serving three meals per day	
Beverages	Water is available at all meals in addition to other beverages regularly served. Tap water should be used wherever possible.	Portion size be limited to ≤ 8 oz per serving for juice
Food preparation and service	Deep fryers must be eliminated; no deep frying is to occur	Review and establishment of standards for serving containers (e.g. the size of food plates and beverage cups) points of access to water, condiments and seasonings, including salt, consistent with serving sizes necessary to achieve nutritional balance. <i>(Related issue of vending machine locations, content and access addressed in Phase II)</i>

Note regarding water requirements: Agencies should be in compliance with water requirements within 1 year.

Note regarding deep fryers: In situations where there are currently deep fryers, it may require a long time frame and significant structural changes to existing facilities. The standard requires that all new or renovated kitchens be built without deep fryers.

Snack Standards

Snacks should add important nutrients to the overall diet and help curb hunger.

	REQUIRED	RECOMMENDED
Overall Guidelines	All items must be 0 g trans fat	Water is available at all snack times, in addition to other beverages regularly served
	Foods served must be on the list of acceptable choices or should provide equivalent nutrient value (e.g. melon slices for fruit category)	
	REQUIRED	RECOMMENDED
CHOOSE AT LEAST TWO ITEMS, EACH FROM DIFFREENT FOOD CATEGORIES BELOW		
Food Category 1: Dairy Beverages	Serving size is 1 cup (8 oz)	
	Milk must be low-fat (1%) or non-fat. ^{5, 6}	
	Fluid milk substitute (e.g. soymilk) be ≤ 100 calories (kcal) per 8 oz	
Food Category 2: Fruit or vegetable or juice	Serving size is ≤ ¾ cup (6 oz) or ½ cup fresh fruit	Acceptable choices include: carrot sticks, celery sticks, pepper slices, salads, apples, bananas, pears, oranges, dried fruit, applesauce with no sugar added, and canned fruit in its own juice
	If 100% fruit juice is selected, milk cannot be the other item	
Food Category 3: Bread or grain products	Serving size is ½ cup or 1 slice	All items served be whole grain
	Sodium be ≤ 215 mg per serving for bread, crackers, chips, salty snacks	Acceptable choices include: whole grain pita triangles, whole grain cereal, whole grain crackers, whole grain bread, rice cakes, popcorn
	Sugar ≤ 10 g per serving	<u>Inappropriate</u> items: doughnuts, pastries, croissants, cake, etc
	Fiber ≥ 2g per serving	

⁵ Children aged 12 months to under age 2 should be served whole milk.

⁶ For children ages 2-18 years flavored milk and flavored fluid milk substitutes are permitted and **required** to be ≤ 130 kcal per serving. Recommended that agencies continue to phase out flavored milk and flavored fluid milk substitutes over time.

Food Category 4: Protein (meat or meat alternative)	Serving size: 1 oz cheese; beans ≤ 2 oz.; yogurt ≤ 4 oz	Acceptable choices include: hummus, bean dip, cottage cheese, low-fat cheese, hard boiled eggs, low-fat (1%) or non-fat yogurt, low-sodium tuna, nuts, nut butters, sunflower seeds, turkey slices
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Examples of acceptable snack choices for children age 6-12 years, served with water:

- Peanut butter (2 tbsp) with one serving whole grain crackers and one serving apple slices
- One peach and one serving whole grain crackers
- Half of a tuna sandwich: tuna (1 oz) on one slice of whole grain bread with lettuce and tomato
- Turkey (1 oz) served with five whole grain pita triangles and one serving carrot sticks
- Milk and whole grain cereal, with ½ cup fresh berries
- Unsalted mixed nuts (1 oz) and a medium-sized banana
- Yogurt (4 oz), topped with ½ cup blueberries and served with one serving rice cakes
- Hummus (¼ cup) with pita and one serving sliced red peppers

Additional Snack Considerations

	REQUIRED	RECOMMENDED
Beverages for sites serving adults	≤ 25 calories (kcal) per 8oz for beverages other than 100% juice or milk	
Condiments		Use of low-fat cholesterol-free mayonnaise; reduced sodium soy sauce; low-sodium ketchup; and low-fat and low-sodium and low-calorie (kcal) salad dressings (as per FDA definitions), when possible
		Individual packets of condiments (sugar, salt, spread, jam, etc.) can be served when appropriate
Food preparation		Use added fats and sugars sparingly
		Use olive and canola oils

Special Occasion Standards for Meals and Snacks

Special occasion standards apply to trips, parties for holidays and special events where food is purchased from vendors not routinely used by the agency for normal food service.

REQUIRED	RECOMMENDED
Healthy options such as fresh fruit, leafy green salad, and/or vegetable slices, are available	Special occasion meals generally be limited (for example, once a month)
Water is available at all times	Special occasion snacks generally be limited (for example, once a month)
	If serving sweets/desserts, offer in moderation
	Adherence to beverage standards
	Eliminate all foods that meet the USDA definition of Foods of Minimal Nutritional Value (definition available at: http://www.fns.usda.gov/cnd/menu/fmnv.htm)

III. Agency and Population-Specific Standards and Exceptions

In addition to baseline and category guidelines above, agencies which serve meals to populations with special nutritional needs (e.g. children, seniors) will require specific nutrition criteria. A transition period of up to 12 months will be allowed for these agencies for which immediate compliance would cause undue hardship.

Child Care Services Providers

All child care services that are issued permits under MA Department of Early Education and Care, Laws and Regulations, Section 102 CMR 7, http://www.eec.state.ma.us/docs/group_school_regs.pdf, obtained from <http://www.eec.state.ma.us/LawRegs.aspx> and the Health Department's guidelines on nutrition for group child care services. All state agencies that contract with group child care services shall require contractors to comply with these regulations and guidelines in lieu of the Massachusetts State Agency Food Standards contained herein. Home-based childcare providers are not required to comply with these standards.

Federal Commodity Food Programs

Agencies using food provided by the federal government are not required to meet the standards outlined in Section I. However, agencies accepting these foods **must** meet the nutrition standards for meals prepared outlined in Section II.

	REQUIRED	RECOMMENDED
Overall guidelines		Agencies serving populations with a majority less than 19 years of age follow the Institute of Medicine, Food and Nutrition Board's Dietary Reference Intakes (DRI) for appropriate age groups
Standards for Purchased Food	When milk is provided, children ages two and older shall only be served milk with 1% or less milk-fat <i>unless</i> milk with a higher fat content is medically required for an individual child, as documented by the child's medical provider	Agencies continue to phase out flavored milk and flavored fluid milk substitutes over time
	When milk is provided, children ages 12 months to under age 2 should be served whole milk	Juice not exceed 6 ounces per serving for children in elementary school
	Flavored milk and flavored fluid milk substitutes be \leq 130 calories (kcal) per serving	
Nutrition Standards	Agencies serving populations with a majority of the population under 19 years old limit sodium to \leq 2,200 mg per day	
	Fiber be \geq 25g per day for agencies serving populations with a majority of children 4 to 19 years of age and \geq 19g per day for agencies serving populations with a majority of children 1 to 4 years of age	
		Potassium be \geq 3,800 mg per day, with adjustments for specific age groups: \geq 3,800 mg per day for children 4-8 years old, \geq 4,500 mg per day for children 9-13 years old, and \geq 4,700 mg per day for adolescents 14-18 years old
		Calcium level be adjusted for age of children served: \geq 800 mg per day for 4-8 year olds and \geq 1,300 mg per day for 9-18 year olds

Seniors

REQUIRED	RECOMMENDED
Agencies serving populations with a majority of the population > 50 years of age limit sodium to ≤ 1,500mg per day	Agencies follow the Institute of Medicine, Food and Nutrition Board's Dietary Reference Intakes (DRI) for appropriate age groups Individual items contain ≤ 360 mg sodium per serving

Note regarding sodium requirement: This is one of the more challenging goals and will require several years to implement. To reach this level of sodium intake, sodium will need to be reduced across the widest spectrum of foods and agencies will need to use other spices, so that taste preferences slowly adjust.

Correctional Population

Agencies serving the correctional population have a majority of young, healthy women and men who may require a higher than average caloric intake. Daily meals and snacks for this group must provide less than 2,200 kcal for women and 2,800 kcal for men.

Patients under Therapeutic Care

Nutrition requirements consistent with established medical guidelines and diets for patients under therapeutic care replace general nutrition criteria described within these standards. The Patient Bill of Rights allows patients under therapeutic care to request specific food items. These items are considered part of the therapeutic diet and do not need to meet the nutrition criteria.

Emergency Food

Agencies that purchase food to be distributed by a third party to emergency food providers, such as soup kitchens and food pantries, must follow the guidelines outlined in Section I.

Food for Disaster Response

Food purchased by agencies to serve solely for a disaster or crisis response are not restricted by the nutrition criteria included here, recognizing such stocks intentionally include nutrient dense food products.

Appendix A

Nutrients	Breakfast	Lunch	Dinner
Calories (2,000kcal) ^{1 2}	500-600 kcal	600-700 kcal	600-700 kcal
Sodium (<2300mg) ^{1 2 3}	500-690 mg	500-805 mg	500-805 mg
Fat (≤30%kcal)	≤ 22g	≤ 22g	≤ 22g
Saturated fat (<10%kcal)	<7g	<7g	<7g
Fiber (>28g) ^{1 2 *}	>8g	>10g	>10g
Fiber (1-4 years)*	>5g	>7g	>7g
Fiber (4-19 years)*	>6g	>9g	>9g
Protein (10-35% of kcal)	15-52g	18-61g	18-61g
Carbohydrate (45-60% of kcal)	68-90g	79-105g	79-105g
Cholesterol ³ (<300mg)	<100mg	<100mg	<100mg
Nutrients			
Potassium	4,700mg (proportional to calories (kcal) served)		
Calcium	1,000mg (proportional to calories (kcal) served)		
Iron	> 8mg (18mg Female, 8mg Male, proportional to calories (kcal) served)		
Meal Standards	Breakfast	Lunch	Dinner
Fruits & Vegetables (minimum)	1 Serving (ex: ½-1 cup or 1 med apple)	2 Servings (ex: 2 cup salad green or 1 c salad plus 1 med fruit)	2 Servings (ex:1 cup cooked broccoli; ½ c cooked spinach)
Dairy **	1 Serving (ex: 8 oz non-fat milk; 1 oz low-fat cheese or yogurt)	1 Serving(ex: 8 oz non-fat milk; 1 oz low-fat cheese or yogurt)	1 Serving(ex: 8 oz non-fat milk; 1 oz low-fat cheese or yogurt)
Meat & Beans **	1-2 oz.	2-3 oz.	2-3 oz.
Whole Grains (minimum)	2-3 servings (ex: 1 sl bread or 2/3 c dry cereal or ½ c cooked rice or pasta)	2-3 servings	2-3 servings (ex: 1 c rice and beans; sm. handful oyster crackers(for soup)

¹ Each meal served meets appropriate range of calories, sodium and fiber: 25-30% for breakfast

² Each meal served meets appropriate range of calories, sodium and fiber: 30-35% for lunch and dinner

³ Daily Limit REGARDLESS of total calorie (kcal) intake.

* REQUIRE fiber be ≥ 25g per day for agencies serving populations with a majority of children 4 to 19 years old. For agencies serving children 1-4 years old, REQUIRE fiber ≥ 19g per day. These requirements are for agencies serving 3 meals per day

Agencies serving less than 3 meals should follow the appropriate range for fiber per meal.

**Choose low fat, low sodium, “extra lean” versions of these food groups

REFERENCES:

Fruits & Vegetable recommendations per meal adapted from the Massachusetts State Agency Food Standards, pg. 5.
Recommendations for Dairy, Meat and Whole Grain Standards adapted from USDA food pyramid standards.
www.ChooseMyPlate.gov.

Sample 2,000 calorie (kcal) menu**Breakfast**

- 1 egg or 1/4c egg substitute
- 2 slices whole grain toast
- 1 tsp. margarine (LS, TFF)
- 8 oz. yogurt (LF)
- Whole orange
- Coffee

Lunch

- Turkey Sandwich: 2-3 oz. Lean Turkey Breast, 2 slices whole grain bread, Lettuce, Tomato, 2 tsp. Mayonnaise (LF), Side Salad (lettuce, tomato, onion, carrot, cucumber, mushroom)
- 2 tbsp. dressing (LS, LF)
- Small bag baked chips (LS) or pretzels (LS)
- Whole pear

Dinner

- Pasta & Meatballs: 3, 1oz. ground beef meatballs (90-95% lean, LS) with 1 cup whole grain pasta tossed with 1 cup steamed broccoli, mushrooms, onions and peppers, ¼ cup tomato sauce (LS)
- 1 slice bread (LS)
- 1 tsp. margarine (LS, TFF)
- 1 cup milk (FF)

Snack

- ½ cup applesauce
- 2 graham cracker squares

Adapted from NYC Nutrition Standards