



## Healthy School Meals

Fundamentals of Meal Planning  
 July 20, 2016  
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 Iowa Department of Education



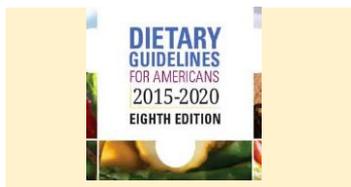
## Course Objectives?

- Have a basic understanding of the Dietary Guidelines for Americans.
- Determine how to use the Dietary Guidelines to plan healthy school meals.



## Three Tools for Guiding Food Choices

**CN 075112**  
 Each 3.33 oz Fully Cooked Eggs-n-Sausage Pistolette provides 1.25 oz equivalent Meat/Meat Alternate and 1-1/4 servings of Bread for Child Nutrition Meal Pattern Requirements. (Use of this logo and statement authorized by the Food and Nutrition Service, USDA 08/09.)  
**CN**



Nutrition Facts		Amount Per Serving	
Total Fat	12g	24%	30g
Sodium	10g	20%	50g
Total Carbohydrate	10g	20%	50g
Protein	10g	20%	50g
Dietary Fiber 1g 2% 5g			
Sugars 10g 20% 50g			
Total Sugars 10g 20% 50g			
Saturated Fat 10g 20% 50g			
Trans Fat 10g 20% 50g			
Cholesterol 10g 20% 50g			
Vitamin A 10% • Vitamin C 20% • Calcium 10% • Iron 20%			



## A Healthier You

- The Dietary Guidelines for Americans 2015-2020 is the basis for the U.S. dietary guidance system.
- The CN labeling Program requires an evaluation of a product's formulation by FNS to determine its contribution toward meal pattern requirements. It allows manufacturers to state this contribution on their labels.
- Nutrition Facts Labels provide information about foods, such as serving sizes, ingredients, and nutritional content



## How does this affect Child Nutrition Programs?

- Menu planning must follow:
  - Recommended Dietary Allowances
  - Calorie goals
  - Dietary Guidelines for Americans

## Dietary Guidelines for Americans 2015-2020

- Follow a healthy eating pattern across the lifespan
- Focus on variety, nutrient density and amount
- Limit calories from added sugars and saturated fats and reduce sodium intake
- Shift to healthier food and beverage choices
- Support healthy eating patterns for all





## Healthy Eating Patterns

- All food and beverage choices matter.
- Choose a healthy eating pattern at an appropriate *calorie level* to help achieve and maintain a healthy body weight, support nutrient adequacy, and reduce the risk of chronic disease.



## Healthy Eating Patterns

### Calories

Males				Females			
Age	Sedentary	Moderately Active	Active	Age	Sedentary	Moderately Active	Active
6	1,400	1,600	1,800	6	1,200	1,400	1,600
10	1,600	1,800	2,200	10	1,400	1,800	2,000
13	2,000	2,200	2,600	13	1,600	2,000	2,200
17	2,400	2,800	3,200	17	1,800	2,000	2,400

13 y/o boy: 2,200 – 550 calorie breakfast – 700 calorie lunch = 950 calories  
 13 y/o girl: 2,000 – 550 calorie breakfast – 700 calorie lunch = 750 calories



## Healthy Eating Patterns

Final Rule Nutrition Standards in the National School Lunch and School Breakfast Programs – Jan. 2012

Meal Pattern	Breakfast Meal Pattern			Lunch Meal Pattern		
	Grades K-2 <sup>1</sup>	Grades 3-5 <sup>1</sup>	Grades 6-12 <sup>1</sup>	Grades K-2	Grades 3-5	Grades 6-12
Amount of Food <sup>2</sup> Per Week (Minimum Per Day)						
Fruit (cups) <sup>3</sup>	5 (1) <sup>4</sup>	5 (1) <sup>4</sup>	5 (1) <sup>4</sup>	2 1/2 (1/2)	2 1/2 (1/2)	5 (1)
Vegetables (cups) <sup>3,4</sup>	0	0	0	3 1/2 (1/2)	3 1/2 (1/2)	5 (1)
Dark green <sup>5</sup>	0	0	0	1/2	1/2	1/2
Red/Orange <sup>5</sup>	0	0	0	1/2	1/2	1/2
Beans/Pulses (Legumes) <sup>5</sup>	0	0	0	1/2	1/2	1/2
Starchy <sup>5</sup>	0	0	0	1/2	1/2	1/2
Other <sup>5</sup>	0	0	0	1/2	1/2	1/2
Additional 1/2 cup to Reach Total <sup>6</sup>	0	0	0	1	1	1 1/2
Calories per meal <sup>7</sup>	350-410 <sup>8</sup>	410-470 <sup>8</sup>	470-530 <sup>8</sup>	300 (1)	300-350 (1)	400-450 (2)
Meats/Meat Alternatives (oz eq) <sup>9</sup>	0 <sup>4</sup>	0 <sup>4</sup>	0 <sup>4</sup>	0-10 (1)	0-10 (1)	10-12 (2)
Fat-free milk (cups) <sup>10</sup>	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)	1 (1)

**Other Specifications: Daily Amount Based on the Average for a 5-Day Week**

	350-500	400-550	450-600	550-650	600-700	750-850
Minimum calories						
Total Fat	< 10	< 10	< 10	< 10	< 10	< 10
% of total calories <sup>11</sup>	< 10	< 10	< 10	< 10	< 10	< 10
Sodium (mg) <sup>12</sup>	< 400	< 450	< 500	< 600	< 700	< 800
Total fat <sup>13</sup>						

<sup>1</sup> In the SBP, the above age-grade groups are required beginning July 1, 2013 (SV 2011-1-14). In SV 2012-2013 only, schools may continue to use the meal pattern for grades 6-12 (SV 2-20-12).

<sup>2</sup> Food items included in each food group and sub-group and amount equivalents. Minimum creditable serving is 1/2 cup.



## Variety, Nutrient Density and Amount

- To meet nutrient needs within calorie limits, choose a variety of nutrient-dense foods across and within all food groups in recommended amounts.



## Variety, Nutrient Density and Amount

- **Vegetable Subgroups**
  - **Dark Green**
    - Vitamin K (blood clotting), Folic Acid (growth)
  - **Red/Orange**
    - Vitamin A (vision), Vitamin C (wound healing)
  - **Legumes**
    - Dietary Fiber (lowers cholesterol levels), B vitamins (energy)
  - **Starchy**
    - Potassium (normal heart rhythm), Magnesium (muscle contraction)
  - **Other**
    - Copper, Vitamin E, iron (normal bodily functions)



## Variety, Nutrient Density and Amount

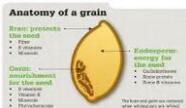
- **Fruit**
  - Key nutrients: Dietary fiber, Vitamin C, potassium
  - Focus on whole fruit – fresh, canned, frozen or dried
  - 1/2 cup 100% fruit juice = 1/2 cup fruit
  - 1/2 cup dried fruit = 1/2 cup fruit
  - No more than 1/2 of the fruit offerings can be in the form of juice





### Variety, Nutrient Density and Amount

- Grains
  - Focus on whole grains (brown rice, quinoa, oats)
  - Whole grains contain the entire kernel, including the endosperm, bran, germ.
  - Key Nutrients: fiber, iron, zinc, magnesium, folate, copper, manganese, thiamin, niacin, B6, phosphorus, selenium, etc.
  - Refined grains remove the bran and germ
  - Enriched grains add back in some of the nutrients, but not all (only iron, thiamin, riboflavin, niacin, folic acid)
  - Make 1/2 your grains whole grain
  - Grain waiver available SY17



### Variety, Nutrient Density and Amount

- Dairy
  - Key nutrients:
    - Calcium, Phosphorus, Magnesium (bone/teeth health)
    - Vitamin A (bone development)
    - Vitamin D (calcium absorption)
    - Riboflavin (helps with energy formation)
    - Vitamin B12 (normal cell function)
    - Protein (structural role in body)
    - Potassium (water balance in the body)
    - Zinc (helps with energy production)
    - Selenium (cell protection)



### Variety, Nutrient Density and Amount

- Protein
  - Found in both plant and animal sources
  - Key Nutrients:
    - Protein (transport fats throughout the body)
    - Zinc and B Vitamins, i.e. riboflavin, niacin, B6, B12 (energy production)
    - Selenium, Vitamin E (cell protection)
    - Choline, Phosphorus (structural component of cell membranes)
    - Copper (gives oxygen to iron before it is transported through the body)
    - Vitamin D (bone health)

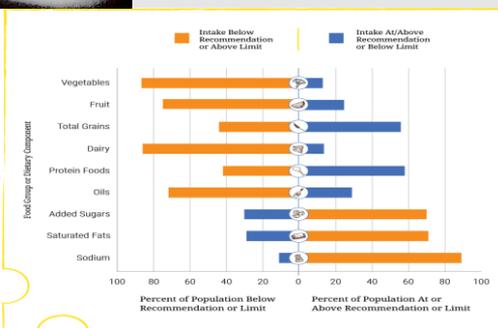


### Limit sugars, saturated fats and sodium

- Consume an eating pattern low in added sugars, saturated fat, and sodium.
- Cut back on foods and beverages higher in these components to amounts that fit within healthy eating patterns.



### Limit sugars, saturated fats, and sodium



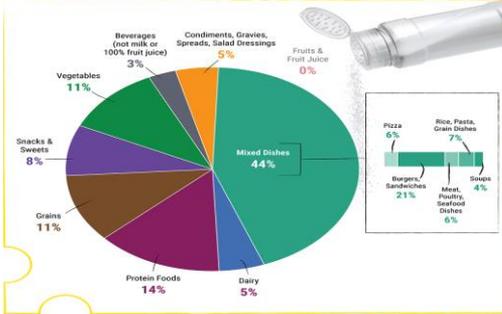
### Limit sugars, saturated fats and sodium

- 2 types of trans fats:
  1. Naturally occurring
  2. Partially Hydrogenated Oils





Limit sugars, saturated fats and sodium



Limit sugars, saturated fats and sodium

- Current sodium levels of 3,440 mg daily is too high.
- Experts recommend no more than 2,300 mg daily.
- Current Sodium Limits for NSLP:
  - K-5:  $\leq 1,230$  mg
  - 6-8:  $\leq 1,360$  mg
  - 9-12:  $\leq 1,420$  mg



Healthy Food and Beverage Choices

- Choose nutrient-dense foods and beverages across and within all food groups in place of less healthy choices.
- Consider cultural and personal preferences to make these shifts easier to accomplish and maintain.



Healthy Food and Beverage Choices

- Nutrients of Public Health Concern
  - Dietary fiber
  - Potassium
  - Calcium
  - Vitamin D
  - Iron
- Water



Healthy Food and Beverage Choices

Menu Planning

- Plan several days or a week of meals at a time. This will help you avoid repeating foods too often.
- {Iowa Gold Star Menus}
- {Healthier Kansas Menus}



Support Healthy Eating Patterns

- Everyone has a role in helping to create and support healthy eating patterns in multiple settings nationwide, from home to school to work to communities.





## Support Healthy Eating Patterns



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## Thank You!

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