INDIANA CACFP
Sodium Reduction
Highlights

- 90% of Americans consume too much sodium in their diet.
- Most preschoolers and children are consuming too much sodium.
- Dietary guidelines (2010): recommend less than 2,300 mg per day for persons age 2 and up.
- The prevalence of elevated blood pressure…
  - boys = 19.2%
  - girls = 12.6%.
- African America children consumed more sodium than other ethnic groups at the same age.
- Only 10% of the children in U.S consumes enough potassium everyday.
Recommended sodium intake for infants, toddlers and children

<table>
<thead>
<tr>
<th>Nutrient</th>
<th>Life Stage Group</th>
<th>AI (Adequate Intake) mg/d</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sodium</td>
<td>0-6 mo</td>
<td>120</td>
</tr>
<tr>
<td></td>
<td>7-12 mo</td>
<td>370</td>
</tr>
<tr>
<td></td>
<td>1-3 yr</td>
<td>1000</td>
</tr>
<tr>
<td></td>
<td>4-8 yr</td>
<td>1200</td>
</tr>
</tbody>
</table>

Institute of Medicine of the national academies
Recognize the problem

Briefel and Johnson (2004) and NHANES (2003-2006)
CACFP: recognize the problem: stronger emphasis on gradual reduction of sodium over years.

- National concerns for almost all age groups (seniors, male and female adults, children.)
- Over the decades, the intake of sodium at all age groups has increased constantly.
- A slightly decrease on sodium intake in children during 2003-2008 (3000mg/day), but still far above the recommendation (2300mg/day)
- High intake of sodium is linked with elevated blood pressure, which contributes a series of cardiovascular diseases such as stroke.
What we can do to change

• Reduce the intake of sodium by consuming a little less sodium everyday
  1. The taste of sodium is also affected by sodium exposure
  2. 75% of the dietary sodium comes from the added salt originally in food products/ from manufacturer

• Increase the intake of food rich in dietary potassium
  1. Researches have found that preventing high blood pressure is not just about lowering the sodium, nor increasing the potassium; potassium and sodium are both important electrolytes in the human body. They work together to balance the fluid volume and blood concentration.
  2. Potassium is more easily removed from the body and sodium is more likely to be stored.
  3. Studies shows that increasing potassium intake blunts the effect of sodium concentration by increasing the excretion of the sodium.
  4. Most fruits and vegetables are great sources of potassium.
Potassium: fruits and vegetables

Fruit and vegetables that are rich in potassium: (Blood Pressure Association)

- Tomato juice and puree
- Orange juice
- Bananas
- Apricots
- Currants
- Potatoes
- Sweet Potatoes
- Asparagus
- Spinach
- Cabbage
- Sprouts
Reference of daily fruit and vegetable intake:

<table>
<thead>
<tr>
<th></th>
<th>Fruit</th>
<th>1 year old</th>
<th>2-3 years old</th>
<th>4-8 years old</th>
<th>9-13 years old</th>
<th>14-18 years old</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>1 cup</td>
<td>1 cup</td>
<td>1.5 cups</td>
<td>1.5 cups</td>
<td>1.5 cups</td>
<td></td>
</tr>
<tr>
<td>Female</td>
<td>2 cups</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Vegetables</td>
<td>Male</td>
<td>3/4 cup</td>
<td>1 cup</td>
<td>1 cup</td>
<td>2 cups</td>
<td>2.5 cups</td>
</tr>
<tr>
<td>Female</td>
<td>1.5 cups</td>
<td>2.5 cups</td>
<td>3. cups</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Source: American Heart Association
Meal planning

- Avoid/purchase less foods high in sodium:
  Top 10 sodium sources:

<table>
<thead>
<tr>
<th>Pizza</th>
<th>Bread/rolls</th>
<th>Poultry</th>
<th>Cold Cuts/Cured Meat</th>
<th>Sandwiches</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savory snacks</td>
<td>Soups</td>
<td>Cheese</td>
<td>Mixed Pasta Dishes</td>
<td>Hotdogs/Sausages</td>
</tr>
</tbody>
</table>

CDC: high sodium intake in children & adolescents: cause for concern

- Keep table salts away from children.

- Limit the amount of served condiments:
  Children usually consume a lot condiments/sources (ketchup/ soy source/ranch, etc.) in order to compensate for some plain-flavored food/vegetables.
  Condiments such as ketchup/ ranch usually contain excess amount of sodium.

- More vegetables, fruits & less salty meat, snacks
  CACFP Best Practice: Reduce use of pre-prepared foods and increase in-house food preparation to reduce sodium, solid fat, added sugars, and costs
What to look at when reading a label?

- Use the Percent Daily Value (%DV) to Compare Products
  5%DV (120 mg) or less of sodium per serving is low
  20%DV (480 mg) or more of sodium per serving is high
- Recognize these terms:
  Salt/Sodium-Free → Less than 5 mg of sodium per serving
  Very Low Sodium → 35 mg of sodium or less per serving
  Low Sodium → 140 mg of sodium or less per serving
  Reduced Sodium → At least 25% less sodium
  Light in Sodium or Lightly Salted → At least 50% less sodium than the regular product
  No-Salt-Added or Unsalted → No salt is added during processing, but not necessarily sodium-free. Check the Nutrition Facts Label to be sure!

FDA: Sodium in Your Diet: Using the Nutrition Facts Label to Reduce Your Intake
Cooking/preparation

• Rinse canned vegetables/beans under cold running water upon cooking.
• Do not add extra salt in the water when cooking noodles, pasta, or vegetables.
• Avoid recipes that require baking soda/baking powder.
• Use seasoning powders, spices and herbs to enhance the flavor.
• Search “sodium tracking by American Heart Association and American Stroke Association”, you will be able to track your daily sodium intake on a simplified table.
Here are the approximate amounts of sodium, in milligrams, in a given amount of table salt: (American Heart Association)

- 1/4 teaspoon salt = 575 mg sodium
- 1/2 teaspoon salt = 1,150 mg sodium
- 3/4 teaspoon salt = 1,725 mg sodium
- 1 teaspoon salt = 2,300 mg sodium

AHA: about salt(sodium)
Recipes low in sodium

- **Lunch/supper (sodium: 291mg/ serving)**
- **Superman sweet potatoes**
  - 3 medium sweet potatoes (about 1 pound)
  - 3 Tsp. brown sugar
  - 1/8 tsp. ground ginger
  - 8 oz. can peach slices in water, drained
  - 1 Tsp. butter or margarine
  - Cook fresh sweet potatoes, covered, in enough boiling water to cover for 25-35 minutes or until tender. Drain and cool slightly. Peel and cut into 1/2–inch thick slices. Mix brown sugar and ginger. In a 1-square casserole, layer half of the potatoes, half the peach slices, half of the brown sugar mixture and half of the butter. Repeat layers. Bake in 375 degree oven for 30-45 minutes until potatoes are glazed. Spoon liquid over potatoes twice during cooking

- 1/4 cup is one serving of fruit/ vegetable for a 3-5 year old
- Derived from: CACFP PRE-CONFERENCE, SECTION4, FEEDING OUR CHILDREN FOR HEALTH! Jenni Murtaugh. 3/18/2013
Recipes low in sodium

- **Snack (sodium: 156 mg/serving)**
- **Very easy hummus!**
- 2 cans (15 ounce) of Garbanzo Beans, drained/ rinsed
- 2 cloves of garlic
- 4 teaspoons of ground cumin
- 1/2 teaspoon of salt
- 1 1/2 Tsps of olive oil

In a blender or food processor combine garbanzo beans, garlic, cumin, salt and olive oil. Blend on low speed, gradually adding reserved bean liquid, until desired consistency is achieved. Refrigerate. Serve as a dip for veggies like bell peppers, celery, carrots, cauliflower, cherry tomatoes, etc. spread on sandwiches to add moisture and flavor in place of mayonnaise.

- Derived from: CACFP PRE-CONFERENCE, SECTION4, FEEDING OUR CHILDREN FOR HEALTH! Jenni Murtaugh. 3/18/2013
Snacks

• Read labels: less sodium/low sodium preferred.
• Purchase brands of unsalted or reduced-salt crackers.
• Try more old-fashion food: for example, use old-fashioned cooked cereals with rolled oats rather than instant cereals with additional salt.
• If you have to serve some food high in sodium, limit the amount offered, and compensate with other low sodium foods.
• Purchase VARIOUS low sodium foods: encourage kids to try different foods.
Need to know more?

How to prepare a healthy sodium reduced meal in childcare or school?
• Guide for Reducing Salt and Other Sodium Containing Additives in School Meals. Public Instruction.

Check the label: what to look at?
• FDA: Sodium in Your Diet: Using the Nutrition Facts Label to Reduce Your Intake.
  • [http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm315393.htm](http://www.fda.gov/Food/ResourcesForYou/Consumers/ucm315393.htm)
Need to know more?

Striking a Balance: Less sodium (salt), More Potassium. American Heart Association:
http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Striking-a-Balance-Less-Sodium-Salt-More-Potassium_UCM_440429_Article.js

CDC’s Salt web page: http://www.cdc.gov/salt/

Citations

- Child and adults care food program: Aligning Dietary Guidance for All.
- [http://www.iom.edu/~/media/Files/Report%20Files/2013/Sodium-Intake-Populations/SodiumIntakeinPopulations_RB.pdf](http://www.iom.edu/~/media/Files/Report%20Files/2013/Sodium-Intake-Populations/SodiumIntakeinPopulations_RB.pdf)
- [http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/DBrief/sodium_intake_0708.pdf](http://www.ars.usda.gov/SP2UserFiles/Place/12355000/pdf/DBrief/sodium_intake_0708.pdf)
- [http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Striking-a-Balance-Less-Sodium-Salt-More-Potassium_UCM_440429_Article.jsp](http://www.heart.org/HEARTORG/Conditions/More/MyHeartandStrokeNews/Striking-a-Balance-Less-Sodium-Salt-More-Potassium_UCM_440429_Article.jsp)
- [http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/About-Sodium-Salt_UCM_463416_Article.jsp](http://www.heart.org/HEARTORG/GettingHealthy/NutritionCenter/HealthyEating/About-Sodium-Salt_UCM_463416_Article.jsp)
PowerPoint developed by Chi Zhang, CACFP Intern

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