

Reducing Sodium In School Meals

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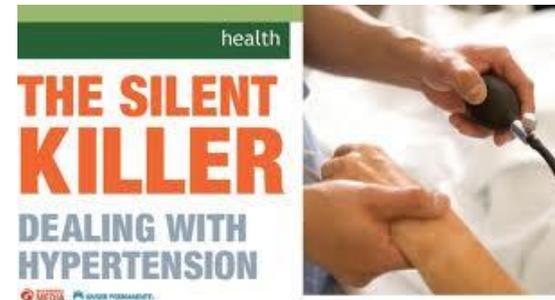
NCDPI School Nutrition Administrator Annual

Conference

Durham, NC



New Standards



- **2009 study**

- Average sodium in school lunch was 1,442 mg

- **Translational Research: Wake Forest University**

- African American Teen Males with hypertension

- **2011 USDA Nutrition Standards in National School Lunch & Breakfast Programs**

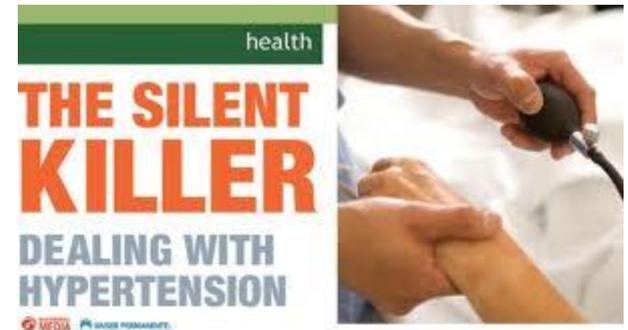
- Sodium reduction goal by 2020

- Schedule of phasing in at different levels

Hypertension

Benefits of Controlled BP

- ↓ cardiovascular disease risk
- ↓ kidney disease risk
- ↓ risk of stroke
- Protects brain function
 - ↓ risk blood circulation problems
 - ↓ risk sudden death

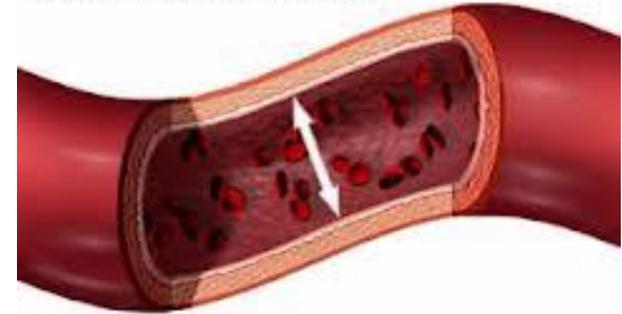


Risk Factors with High BP

- Age
- Race: African American & Asian Americans have higher risk
- Overweight/Obesity
- Inactivity
- Excess alcohol & cigarette smoking
- High sodium intake

Blood pressure is the measurement of force applied to artery walls

Blood Pressure Readings



■ Systolic blood pressure

- First of two numbers (the higher number)
- **BP in arteries when heart is contracting & pumping blood into arteries**
- Optimal: 120 mm Hg or less

■ Diastolic blood pressure

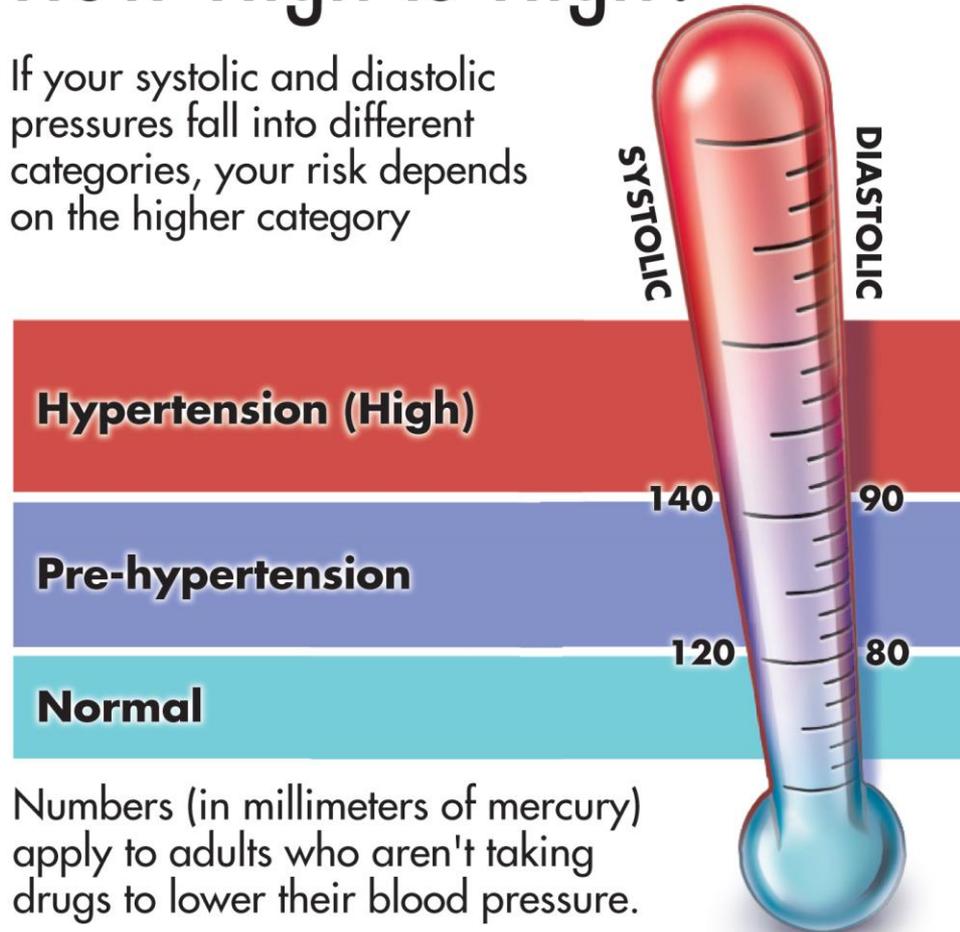
- Second of two numbers (the bottom, lower number)
- **BP in arteries when heart is relaxed**
- Optimal: 80 mm Hg or less

Blood Pressure Readings

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How High Is High?

If your systolic and diastolic pressures fall into different categories, your risk depends on the higher category



Numbers (in millimeters of mercury) apply to adults who aren't taking drugs to lower their blood pressure.

New Standards

Target 1: SY 2014-2015 K-5 grade 6-8 grade 9-12 grade	Lunch ≤ 1230 mg ≤ 1360 mg ≤ 1420 mg	Breakfast ≤ 540 mg ≤ 600 mg ≤ 640 mg
Target 2: SY 2017-2018 K-5 grade 6-8 grade 9-12 grade	Lunch ≤ 935 mg ≤ 1035 mg ≤ 1080 mg	Breakfast ≤ 485 mg ≤ 535 mg ≤ 570 mg
Target 3: SY 2022-2023 K-5 grade 6-8 grade 9-12 grade	Lunch ≤ 640 mg ≤ 710 mg ≤ 740 mg	Breakfast ≤ 430 mg ≤ 470 mg ≤ 500 mg

Sodium chloride or Salt

- **Table salt is sodium chloride**

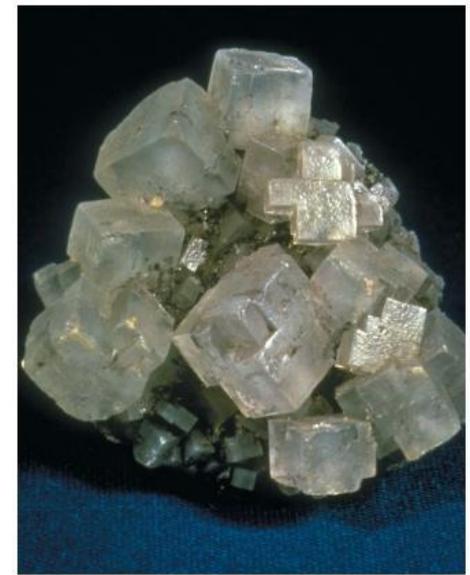
- 40% sodium
- 60% chloride

- **1 tsp of salt = 2,400 mg sodium**

- 2,400 mg is out recommended maximum
- 1,500 mg recommended maximum for some specific populations (African Americans, Asians, Older Americans, persons with Kidney disease)

- **Human adult need only 180 mg/day**

- **We consume 4,000-6,000 mg/day on average!**



Food Sources of Sodium

■ High sodium foods:

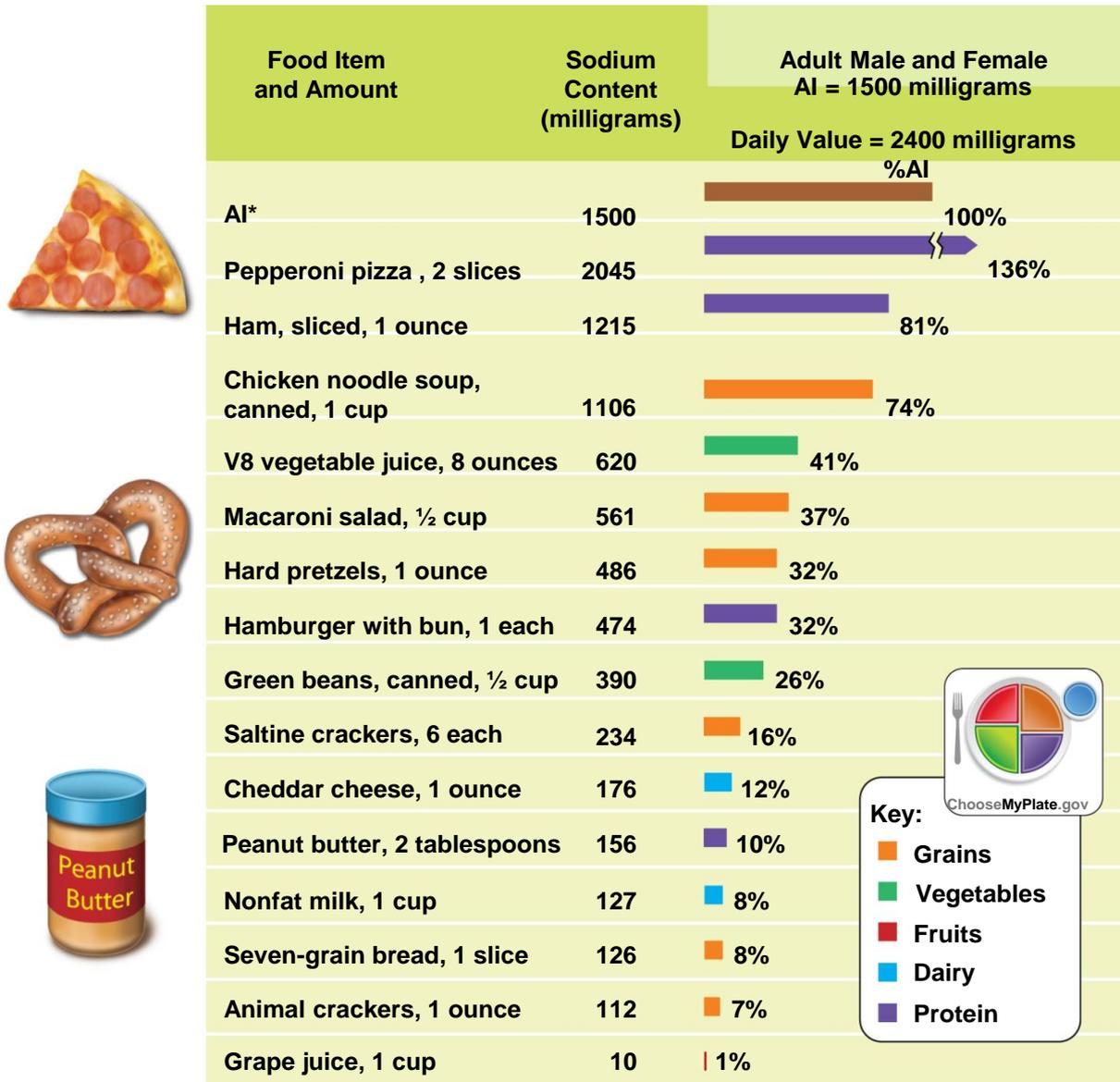
- Packaged foods
- Processed foods
- Fast food
- Canned foods
- Frozen, ready prepared foods (ex: pizza)
- Sea Salt
- Kosher Salt
- Baking powder
- Baking soda
- MSG/Soy sauce
- Preservatives
 - Sodium nitrite

■ Low sodium foods:

- Fresh Fruits & Vegetables
- Whole grains & whole grain products
- Plain poultry, meats, & fish w/o sauces
- Unprocessed foods



We can easily meet/exceed our daily need



* For adults; see the DRI table in the back of this book for age-specific recommendations.

DASH Diet

Dietary Approach to Stop Hypertension

- Could be great way to approach problem
- Research on DASH diet is solid
- Diet ↑ in: calcium, potassium, magnesium
- Diet ↓ in salt
- Very high in fruits & vegetables
 - Naturally ↓-salt, ↑-potassium foods
 - Includes low fat dairy
 - Also high in fiber and low in fat

Follow the DASH diet to potentially lower your blood pressure



ADAM

Ideas for Lowering Salt/Sodium

- **“Fresh is best”**
 - Can you purchase fresh?
 - Consider **NCDA “farm to table” options**
 - Add high-potassium fruits/veggies
- **Frozen fruits and vegetables**
 - Next best choice
- **Canned fruits and vegetables**
 - Highest source of sodium
 - Buy low sodium/low salt brands
 - Drain well and rinse to remove some salt/sodium



USDA: A Vital Partner

- **USDA Offers**

- Canned, frozen & fresh **vegetables** with **reduced or low sodium levels**
- Canned, frozen & fresh **meats, poultry, pork** with **reduced or low sodium levels**
 - **Note: fresh pork is a low sodium food!**
- **Reduced or low sodium cheeses**



- **USDA Pledge**

- To continue working with industry partners to produce products to meet new standards

Ideas for Lowering Sodium

- Pledge to be role model
- Be the expert
 - Read labels
 - Know why & how
- Limit pre-prepared processed foods
 - More “scratch cooking”
 - Change 1 item per day or
 - 1 day per week for scratch cooking
- Adapt “from scratch” recipes
 - Reduce salt in stages with goal to remove all salt in cooking
 - Remove salt when cooking rice, pasta, dried beans
 - Add new seasonings (see handout)
 - Avoid those with salt in label such as garlic salt, onion salt

Nutrition Facts	
Serving Size 1 oz. (28g/About 21 pieces)	
Servings Per Container About 2	
Amount Per Serving	
Calories 170	Calories from Fat 110
% Daily Value*	
Total Fat 11g	17%
Saturated Fat 1.5g	8%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 250mg	10%
Total Carbohydrate 14g	5%
Dietary Fiber less than 1g	2%
Sugars 0g	
Protein 2g	
Vitamin A 2%	Vitamin C 0%
Calcium 0%	Iron 4%
Vitamin E 6%	Thiamin 4%
Riboflavin 2%	Niacin 4%
Vitamin B ₆ 2%	Phosphorus 2%
* Percent Daily Values are based on a 2,000 calorie diet. Your daily values 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
Calories per gram:	
Fat 9	Carbohydrate 4 Protein 4

Seasoning Ideas

- **Ask teachers to discuss history of spices in class**
 - Role of spices in discovery of New World
 - Role of spices in preserving food
- **What spices are used in different foods of different cultures?**
 - Oregano and basil in Italian food
 - Chili power and cilantro in Mexican food
 - Lemon grass in Thai/Vietnamese food
 - Curry powder in Indian food
- **Feature a new spice each week**
- **Grow fresh spices in classrooms or in dining room**
- **Avoid Commercial Salt substitutes!**



Create Your Own Spice Blend

Recipe from The HeartBright Foundation

- 2 Tablespoon black pepper
- 1 Tablespoon cayenne pepper
- 1 Tablespoon paprika
- 1 Tablespoon onion powder
- 1 Tablespoon garlic powder
- 1 ground up bay leaf

Blend & put into salt shaker!



Share Solutions

