

Strategies for Reducing Sodium in Healthcare



Meet the Speaker Panel



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Overview

Background

- Salt and our sense of taste
- Sodium in health and food

Strategies to reduce sodium in healthcare

- Identify lower sodium options
- Control portions
- Modify recipes

Strategies in Action

- Success stories



History of Salt

Salt - A Cultural Phenomenon



What is Salt?

Salt is a mineral composed of sodium and chloride



Sea Salt



Himalayan Salt



Kosher Salt



Fleur de Sel



Table Salt

Salt = Salt

What is it About Salt that Makes it so Desirable?

- Genetics – we're born with it
 - Taste preferences are innate
 - Likely developed to meet a physical need
- Acquired
 - Early dietary experience influences the preference for salty
- Enhances other flavors
 - Savory not equals salty

Salt vs. Sodium: What's the Difference?

- Salt is made up of about 40% sodium and 60% chloride
- Salt is the most common source of sodium in the diet
 - No other ingredient except water is as widely distributed in food as salt
- 1 teaspoon of salt weighs ~6 grams and contains about 2,300 milligrams of sodium



Sodium and Food

Sodium Has an Important Role in Food & Beverages

- Food preservation and safety
- Aids in texture
- Acts as a binder
- Fermentation control
- Stabilizer
- Color development
- Increases palatability/enhances other flavors

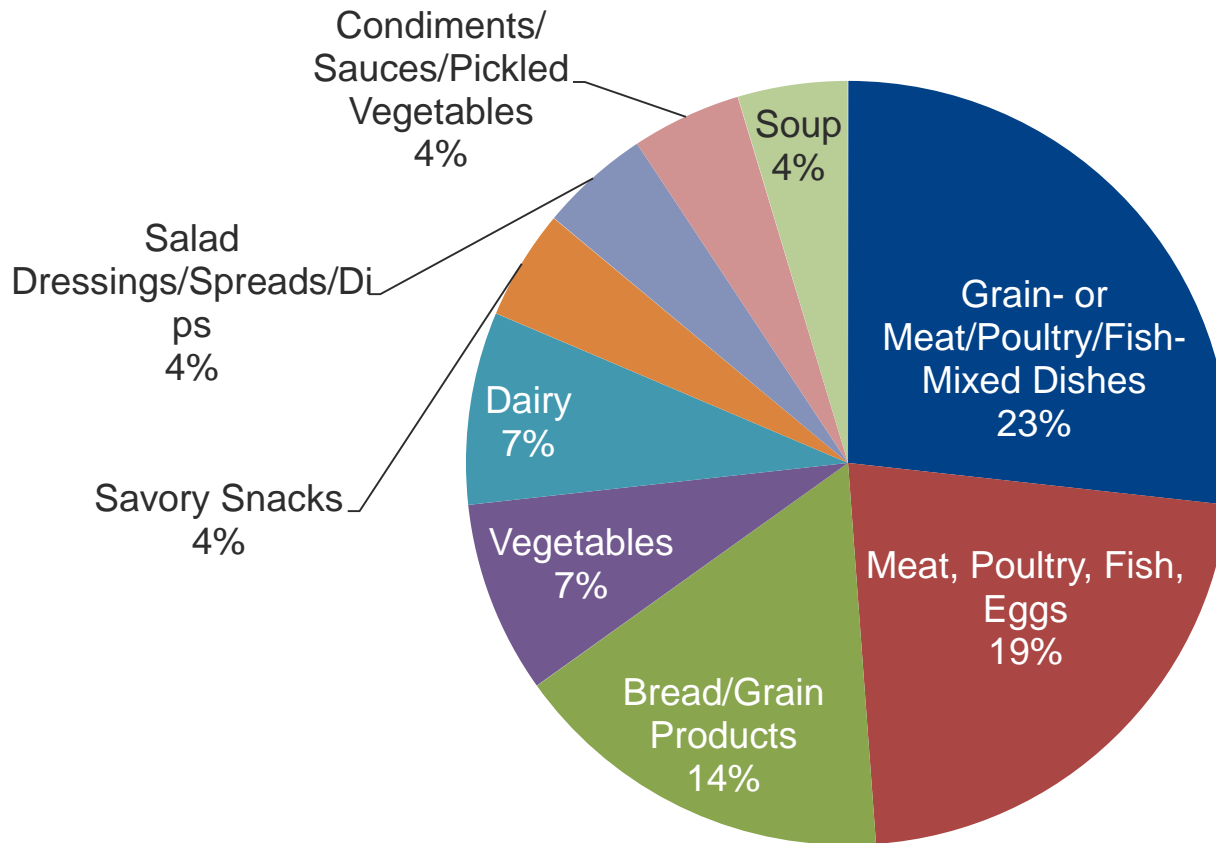
Sodium Consumption in the American Diet

- 2015 Dietary Guidelines for Americans recommend <math><2,300\text{mg}</math> of sodium/day (~1 tsp of salt)
- United States adults consume an average of 3,400 mg/day
- Recent research reviewed by the Institute of Medicine questions how much is too low.



Sources of Dietary Sodium in Adults

Contribution of different food categories to total sodium intake in US Adults





Sodium and Health

Function of Sodium in the Body



- Helps maintain fluid balance and adequate hydration in the body
- Helps transmit nerve impulses
- Influences contraction and relaxation of muscles
- Kidneys work to regulate sodium balance
- Certain conditions can affect the body's normal handling of sodium



Sodium and Blood Pressure in Adults



- High blood pressure affects 1 in 3 adults
- The body of scientific evidence suggests that sodium reduction does decrease blood pressure in sodium sensitive individuals
- Lifestyle modifications are essential for controlling blood pressure
 - Other diet modifications beyond reducing salt (e.g. increasing potassium)
 - Regular physical activity
 - Maintain a healthy weight
 - Manage stress
 - Avoid tobacco smoke
 - Limit alcohol

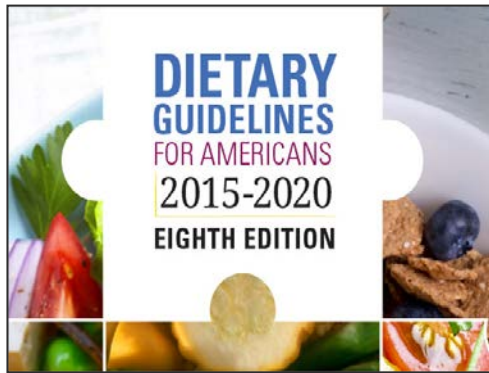
Why Reduce Sodium in Healthcare?

- Serving patients with disease states that require reduced sodium
 - Renal Diet
 - Heart Health Diet
- Hospitals are an extension of the community
 - A place that touches the whole community
- Current regulatory environment
 - Affordable Care Act
 - Health and Wellness initiatives



Overview of Sodium Guidelines

Sodium Recommendations



- Consume <2,300 mg sodium/day
 - Adults and children over age 14 years
- Further reduce intake to 1,500 mg for adults with hypertension and prehypertension



No more than 2,400 mg sodium/day

Reducing daily intake to 1,500 mg is desirable because it can lower blood pressure even further.



<2,400 mg sodium/day.

Further reduce sodium to 1,500 mg/day if possible since it is associated with a greater blood pressure reduction.



<2,300 mg sodium/day is also appropriate for people with diabetes.

For individuals with both diabetes and hypertension, further reduction in sodium intake should be individualized.



<2,300 mg sodium/day

Sodium recommendation dependent upon individual and renal condition.

Partnership for a Healthier America’s (PHA) Hospital Healthier Food Initiative (HHFI)

- PHA launched HHFI in 2012 to deliver healthier food options in hospitals
- There are 9 healthier food commitments



Category	Sodium requirement (mg)
Children’s Wellness Meal	< 665
Wellness Meal	< 800
General Meal Entrée	< 600
General Menu Side Dish	< 200

FDA Allowed Sodium Claims on Food Labels

- Sodium/Salt Free – <5 mg/serving
- Very Low Sodium – <35 mg/serving
- Low Sodium – <140 mg/serving
- Reduced or Less Sodium – 25% less sodium than regular version
- Light – 50% less sodium than regular version
- Unsalted or No Added Salt – no salt added to product during processing



Nutrition Facts	
Serving Size 1 oz (28g)	
Servings Per Container 8	
Amount Per Serving	
Calories 90	Calories from Fat 50
% Daily Value*	
Total Fat 6g	9%
Saturated Fat 4g	20%
Cholesterol 20mg	7%
Sodium 240mg	10%
Total Carbohydrate less than 1g	0%
Dietary Fiber 0g	0%
Sugars 0g	
Protein 7g	
Vitamin A 6%	•
Calcium 20%	•
Vitamin C 0%	•
Iron 0%	•

Summary

- Salt is an inorganic mineral made up 40% sodium and 60% chloride
- Sodium can be found in nearly every food in the food supply
- Reducing sodium intake is a primary strategy to reduce blood pressure along with other life style modifications
- There are guidelines and recommendations for sodium that are important to be aware of in Health care





Part II: Strategies for Reducing Sodium in Healthcare

Strategies for Reducing Sodium in the Kitchen

1

- Identify Lower Sodium Ingredients

2

- Control Portions

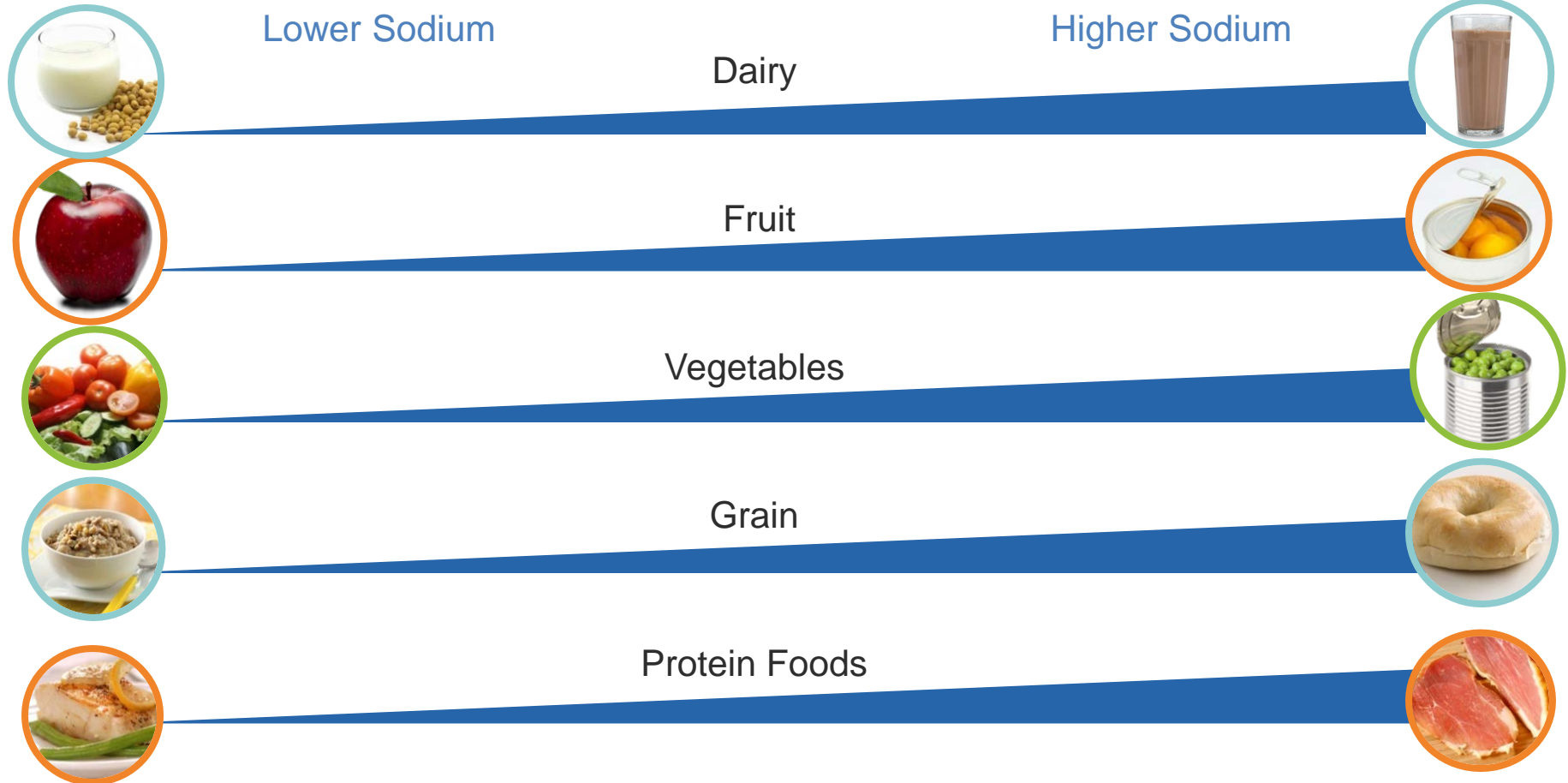
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- Modify Recipes

**Strategy
1**

- Identify Lower Sodium Ingredients

Sodium Levels Vary in Different Foods



Where to Find Sodium Values

- Product labels and nutrition facts panels
- To find the sodium values of foods without a label, such as fresh fruits and vegetables, use
 - Food-a-Pedia
 - USDA SuperTracker
 - USDA nutrient database

Nutrition Facts			
Serving Size 1 cup (227g)			
Servings Per Container about 4			
Amount Per Serving			
Calories 120		Calories from Fat 0	
		% Daily Value*	
Total Fat 0g			0%
Saturated Fat 0g			0%
Trans Fat 0g			
Cholesterol 10mg			3%
Sodium 90mg			4%
Potassium 200mg			6%
Total Carb 10g			3%
Dietary Fiber 0g			0%
Sugars 10g			
Protein 21g			40%
Vitamin A 0%	Vitamin C 0%	Iron 0%	
Calcium 25%			

*Percent Daily Values are based on a 2,000 calorie diet.



Suggestions of Ingredients Pairing

- Tomato sauces
- Soups
- Salads
- Fish

Basil



- Shellfish
- Fresh Fish
- Vegetables

Lemon
Juice



- All meats
- All vegetables
- Dressings
- Baked goods

Garlic



- Meats
- Poultry
- Vegetables
- Add good color

Paprika



- Stewed meats
- Potatoes
- Red Meat
- Poultry

Thyme



- Pasta
- Pork
- Tomato Sauces

Oregano



**Strategy
2**

- **Control Portions**

Control Portion Size

Food	Serving Size Sodium Content		Sodium Savings
Bacon	2 sl 350 mg	3 sl 525 mg	~<175 mg less
Plain Bagel	Small 3" 348 mg	Large 4 1/2" 662mg	>300 mg less
Blueberry Muffin	Small 2 3/4" 208 mg	Med. 3 1/4 " 438 mg	~230 mg less

Use Portion Control for Condiments

<u>Condiment</u>	<u>Portion</u>	<u>Sodium (mg)</u>
Ketchup	1 Tbsp.	190
Ranch Dressing, Low Fat	1 Tbsp.	150
Mustard, Yellow	1 Tsp.	190
BBQ Sauce	1 Tbsp.	175
Soy Sauce	1 Tsp.	340



Strategy

3

- **Modify Recipes**

Blending

Look up a food to get quick access to nutrition info for over 8,000 foods. Choose and compare 2 foods.

Search: for [Go](#) [Go to Food Tracker](#)

[Search Tips](#)

Search Results

Showing 1-7 of 7 Results

- 1 [Tomato sauce](#)
- 2 [Tomato sauce, low sodium](#)
- 3 [Squash, summer, casserole \(yellow or zucchini\), with rice and tomato sauce](#)
- 4 [Green Tomato chile sauce, cooked \(salsa verde\)](#)
- 5 [Green Tomato chile sauce, raw \(salsa verde\)](#)
- 6 [Rice and vegetables, in a tomato-based sauce](#)

Tomato sauce [Remove](#)

Choose an amount:

[+ Add to Food Tracker](#)

Food Info		Nutrient Info	
Total Calories: 60			
Food Groups		Limits	
Vegetables	1/2 cup(s)	Empty Calories*	22
		Solid Fats	20 Calories
		Added Sugars	2 Calories
		Saturated Fat	0 g
		Sodium**	513 mg

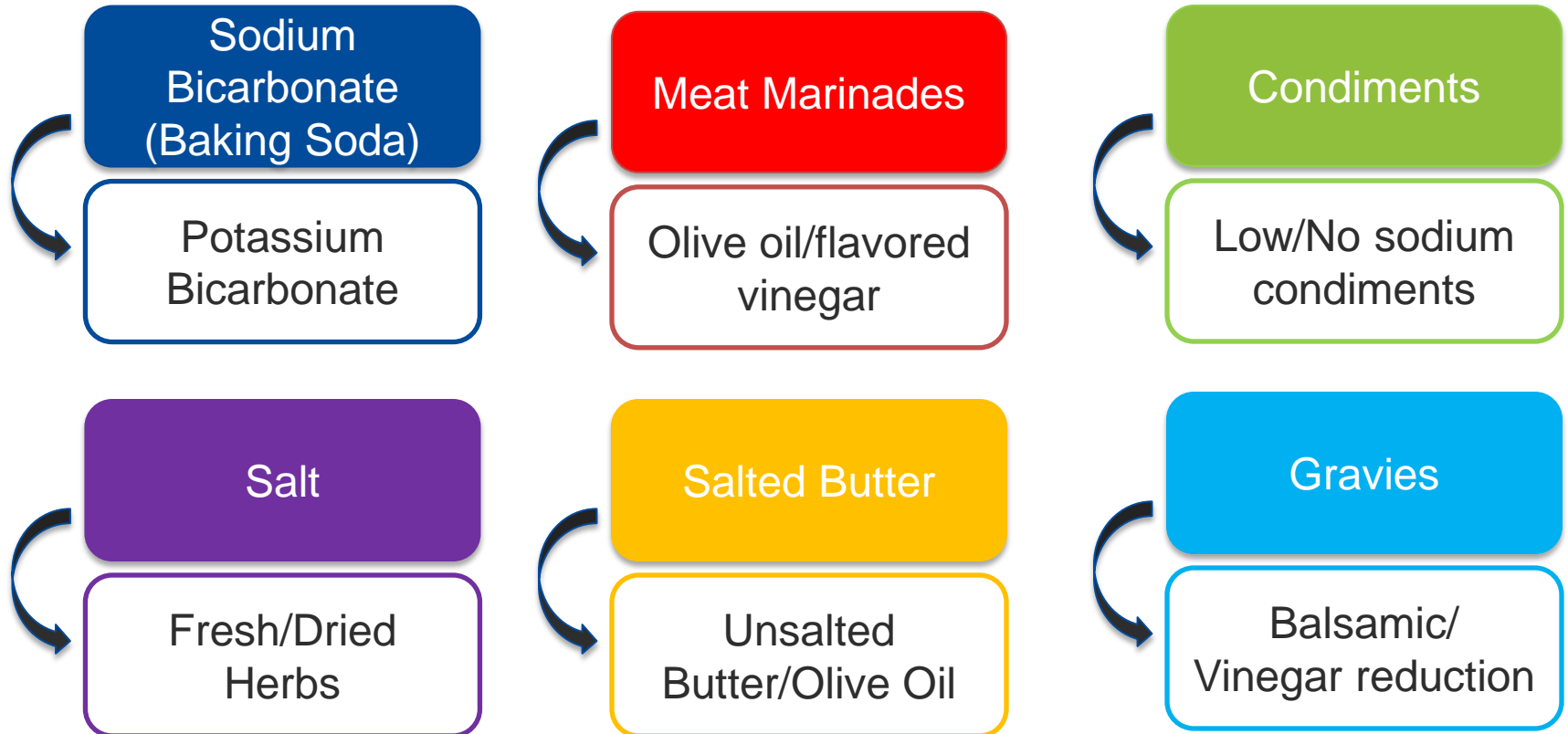
Tomato sauce, low sodium [Remove](#)

Choose an amount:

[+ Add to Food Tracker](#)

Food Info		Nutrient Info	
Total Calories: 62			
Food Groups		Limits	
Vegetables	1/2 cup(s)	Empty Calories*	76
		Solid Fats	45 Calories
		Added Sugars	31 Calories
		Saturated Fat	0 g
		Sodium**	37 mg

Make Substitutions

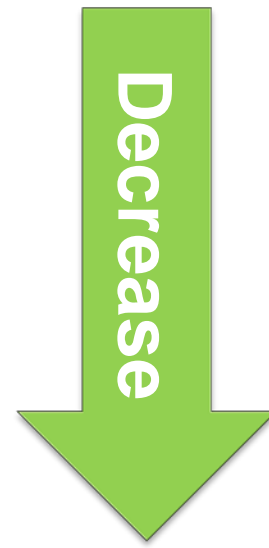


General Culinary Tips for Reducing Sodium



Increase

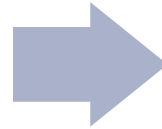
- Have shakers of spice blends available for patients to punch up their own meals
- Add vegetables or whole grains to prepared foods
- Create lower sodium alternatives by adding yogurt to commercially prepared salad dressings or make your own condiments

- 
- Decrease
- Gradually reduce amount of salt in recipes to find lower sodium options while maintaining taste
 - Do not add salt to pasta/potato when cooking
 - Rinse all canned products when possible

Recipe and Menu Examples



Sodium Reductions Made Easy



Traditional Beef Cannelloni

- Beef
- Lasagna Sheet
- Tomato Sauce
- Parmesan cheese
- Salt/ pepper/ garlic

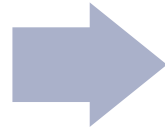
700 mg Sodium

Reduced Sodium Turkey Cannelloni

- Turkey
- Lasagna sheet
- Low sodium Tomato sauce
- No salt seasoning. Fresh herbs

140 mg Sodium

Simple Swaps Can Reduce Sodium



Traditional Chicken and Dumpling Soup

- Chicken
- Vegetable
- Chicken Bouillon
- Condensed soup
- Flour dumplings with Salt added

540 mg Sodium / 5oz.

Reduced Sodium Chicken and Dumpling

- Chicken
- Vegetable
- Low Sodium Chicken Stock
- Salt Free Seasoning
- Whole Grain Biscuit dumplings

160 mg Sodium/ 5oz.

Menu Modification:

Sample Menu – Average American Diet (3,400mg)

B

- 2 eggs scrambled
- 2 slices bacon
- Whole Wheat English Muffin w/1T Jam
- 6oz Orange Juice

L

- Ham Sandwich (2 pieces wheat bread, 2 slices deli ham, 1 slice cheese, mustard)
- Baby Carrots – 1 oz
- ¾c Cantaloupe
- 8 fl. oz. Nonfat Milk

S

- Chips – 1 oz bag
- Diet Soda – 1 can

D

- 4oz Fried Chicken
- ½c Mashed Potato w/ ¼c Chicken Gravy
- 2/3c Asparagus
- Wheat Dinner Roll w/ 1T Butter
- 8 fl. oz. Nonfat Milk
- 1/2c Ice Cream

Total: 3,450mg sodium

Menu Modifications: Recommended Intake for Healthy Americans (<2,300mg)

B

- 2 eggs scrambled
- 2 slices bacon
- Whole Wheat English Muffin w/1T Jam
- 6oz Orange Juice

L

- Ham Sandwich (2 pieces wheat bread, 2 slices deli ham, 1 slice cheese, mustard)
- Baby Carrots – 1 oz
- ¾c Cantaloupe
- 8 fl. oz. Nonfat Milk

S

- Chips – 1 oz bag
- Diet Soda – 1 can

D

- 4oz Fried Chicken
- ½c Mashed Potato w/ ¼c Chicken Gravy
- 2/3c Asparagus
- Wheat Dinner Roll w/ 1T Butter
- 1/2c Ice Cream
- 8 fl. oz. Nonfat Milk

Total: 3,450mg sodium

B

- 1 cup Oat Cereal + ½ cup skim milk
- 6oz Light Yogurt
- Whole Wheat English Muffin w/ 1T Jam
- 6oz Orange Juice

L

- Tuna Salad wrap
- Baby Carrots – 1 oz
- ¾c Cantaloupe
- 8 fl. oz. Nonfat Milk

S

- Fruit Salad – 1 cup
- Diet Soda – 1 can

D

- 4 oz Fried Chicken
- 1 Baked potato w/1T Butter
- 2/3c Asparagus Wheat Dinner Roll w/ 1T Butter
- 1/2c Ice Cream
- 8 fl. oz. Nonfat Milk

Total: 2,150mg sodium

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low sodium


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Search Results

BEST MATCH


FILTERS




Low Sodium



Gluten-Free Buffalo Chicken Tenders



Reduced Sodium Turkey Cannelloni with Tomato Basil Coulis



Reduced Sodium Turkey Cannelloni with Tomato Basil Coulis



Part III: Strategies in Action

More Flavor Less Shaker

- Approach cooking in a fresh way and avoid over processed foods
- Focus on creating flavorful foods without having to use salt
- Educate your team on the importance of control and recipes
- Pay attention to products that say low sodium with unrealistic portion sizes
- Lean on industry experts to see what has been done throughout the country



What About When Patients Leave?

- Provide your patients with a list of products they can purchase that are low sodium
- Educate your patients on portion sizes
- Display through your menu that even without salt you can provide flavorful food



Practice What You Preach

- Be the leader in the fight and educator to the public
- Choices, choices, choices!
- Find the right products that suit your need and keep you within your limits



Recap

Background

- Salt and our sense of taste
- Sodium in health and food

Strategies to reduce sodium in healthcare

- Identify lower sodium options
- Control portions
- Modify recipes

Strategies in Action

- Success stories



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