Michigan Department of Education Office of Health and Nutrition Services School Nutrition Program



Cooking with Less Sodium

Ingredients High in Sodium

- Beef Broth
- Chicken Broth
- Tomato Sauce or Paste
- Spaghetti Sauce
- Canned Vegetables
- Chips
- Table Salt
- Taco Shells
- Soy Sauce
- Processed Cheese, like American
- Cottage Cheese

Lower Sodium Alternatives

- Ingredients such as beef and chicken broths, tomato sauces/paste, spaghetti sauce, and soy sauce often have reduced sodium or no salt added versions.
- If using canned vegetables, seek out low-sodium or no salt added versions
- For processed cheese, alternatives such as mozzarella and Swiss are good replacements.

Culinary Techniques to Cut Back on Sodium^{1, 2}

- Power of spice Instead of salt, try various herbs, spices, flavored vinegars, onions, peppers, ginger, lemon, garlic, garlic powder.
- Rinse, Rinse When using canned foods such as beans and vegetables, rinse away the excess salt.
- Be cautious with broth Even low sodium versions of broth can have lots of sodium.
 Instead, consider cooking with canola or olive oils.
- Modify the recipe Use less sodium than called for in a recipe, or even remove completely if possible.
 - Make sure to test a small batch of the recipe first to make sure it's still
 acceptable, as sodium can serve other roles outside of flavor such as leavening,
 texture, fermentation, etc.

Salt and Sodium Conversions³

Salt to Sodium:

To convert salt to sodium, divide salt in grams by 2.5 and multiply by 1000 to get milligrams of sodium.

Example: Say you had 3 grams of salt and wanted to know the quantity of sodium in mg: 3 g salt divided by 2.5 = 1.2 g sodium x 1000 = 1200 mg of sodium.

Sodium to Salt:

Basically the reverse. Take sodium in mg and multiply by 2.5 and then divide by 1000: 1200 mg of sodium $\times 2.5 = 3000 \text{ mg}$ salt divided by 1000 = 3 g of salt.

Recipe Modification Example for Macaroni and Cheese for 50 Servings

Macaroni and Cheese cd Kitchen⁴

- 4 pounds elbow macaroni
- 3/4 Pounds margarine
- 1 ½ cups flour
- 4 teaspoons salt
- 1/2 teaspoon black pepper
- 1 gallon milk
- 4 pounds Velveeta cheese, cubed
- 1 ½ packages (8-ounce size) shredded cheddar cheese

Nutrient Analysis

Amount per serving Calories: 454kcal

Fat: 25 g Protein: 21 g Carbs: 41 g Fiber: 1 g

Sodium: 1,248 mg

Macaroni and Cheese – USDA Recipe for Schools⁵

- 1 qt 2 cups water
- 1 qt 1 ½ cups 2 Tbsp fresh cauliflower florets
- 1 gal 1 qt 2 cups water
- 2 qt 3 ½ cups whole grain elbow macaroni
- 2 gt low fat (1% milk)
- 3 qt 3 cups low-fat cheddar cheese, shredded
- 1 ½ cups 1 Tbsp low-fat sour cream
- 1 ½ cups 1 Tbsp nonfat sour cream
- ¼ tsp ground black or white pepper
- 1 Tbsp 1 tsp garlic powder
- ¼ cup dried onion flakes
- 1 tsp salt
- 2 Tbsp lemon pepper

Nutrient Analysis

Amount per serving (1 piece)

Calories: 208 kcal

Fat: 4 g Protein 15 g Carbs: 27 g Fiber: 2 g

Sodium: 412 mg

References

- DASH diet: Tips for shopping and cooking. Mayo Clinic. Accessed June 10, 2021. https://www.mayoclinic.org/healthy-lifestyle/nutrition-and-healthy-eating/in-depth/dash-diet/art-20045913
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