



P O T A S S I U M
E D U C A T I O N


A Guide for Dialysis Patients



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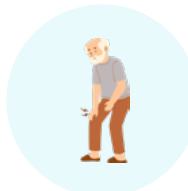
Symptoms of High Potassium Levels



Unusual Heartbeat



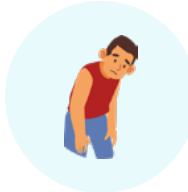
Nausea and Vomiting




Muscle Cramps




Feeling Tired



Muscle Weakness

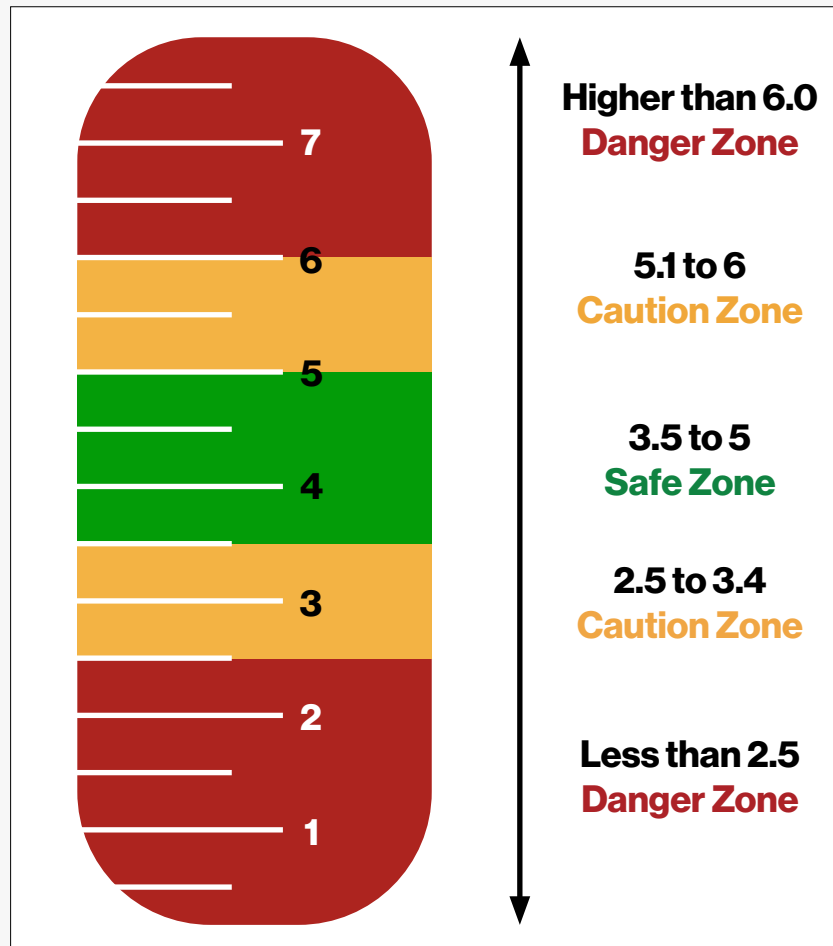


Abdominal Pain



Shortness of Breath

Review your potassium levels and discuss any concerns with your healthcare team!



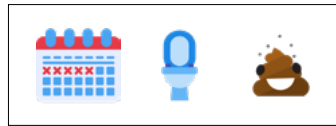
Exploring High Potassium

Common Causes of High Potassium	What can you DO to help keep potassium levels normal?
<p>Constipation</p> <ul style="list-style-type: none"> • Problem with passing stools. • Fewer than three stools per week. • Hard, dry, or lumpy stools. • Straining or pain when passing stools. 	<ul style="list-style-type: none"> • Slowly add more fiber-rich foods to your diet. • Talk with your dietitian about: <ul style="list-style-type: none"> High-fiber foods that are kidney friendly Benefits of using over-the-counter fiber supplements Benefits of taking a probiotic • Exercise! More movement helps stimulate bowel movements. • Important Note: <ul style="list-style-type: none"> Avoid using prune juice.
<p>Metabolic Acidosis (excess acids in the blood)</p> <p>Normal Carbon Dioxide Levels (CO₂): 23-29 mmol/L</p>	<ul style="list-style-type: none"> • Discuss carbon dioxide levels (CO₂) with your dietitian or physician. <ul style="list-style-type: none"> Dialysate bicarbonate levels in your dialysis prescription may be adjusted to correct carbon dioxide levels. Medication may be prescribed to correct carbon dioxide levels in your blood.
<p>Lab Error or Hemolyzed Blood Sample (red blood cells in the sample were destroyed in some way)</p>	<ul style="list-style-type: none"> • Ask your care team if they have orders to re-draw your blood and test it again. • Ensure staff is educated over accurate blood collection techniques and handling.
<p>High Blood Sugar</p> <p>Long-lasting high blood sugar levels damage the small blood vessels in the kidney and impair the kidneys from filtering and regulating electrolytes, including potassium.</p>	<ul style="list-style-type: none"> • Control blood sugar levels and aim for target ranges set by your healthcare provider. • Take medications or insulin as prescribed and follow a diabetes friendly diet. • Reduce intake of processed foods, saturated fats, sodium, and monitor or limit intake of high sugar foods.

Common Causes of High Potassium	What can you DO to help keep potassium levels normal?
Medications and Dialysate Prescription	<ul style="list-style-type: none"> • Ask your nurse to ensure you are on the most appropriate potassium bath (dialysate) during your dialysis treatments. • Ask your physician to review your medication list to see if any may have potassium in them or cause higher potassium in the blood.
GI Bleed	<p>Immediately notify facility staff if:</p> <ul style="list-style-type: none"> • You have had any rectal bleeding, usually in or with stool. • You have had any black, tarry stools. • You have vomited blood, which might be red or dark brown and look like coffee grounds.
High Potassium Diet	<ul style="list-style-type: none"> • Monitor portion control and size of high potassium food intake. • Troubleshoot foods that may be affecting your potassium with your dietitian. • Potassium-binding medication may be beneficial and should be discussed with your dietitian and physician. • Look out for potassium additives on nutrition labels.
Missed or Shortened Treatment	<ul style="list-style-type: none"> • Attend all dialysis treatments. • Do not cut dialysis treatments short. • Re-schedule your dialysis treatment if you must miss for any reason.
Dialysis Access Problems	<ul style="list-style-type: none"> • Discuss with your care team if your dialysis access (fistula, catheter, graft) is working as it should. • Ask questions about how clean your blood is getting from dialysis.

Potassium Emoji Matching Game

Match the emojis with the word or phrase to identify different causes of high blood potassium levels.



GI Bleed (bloody stools)



Missed Treatment



High Potassium Foods



Lab Error



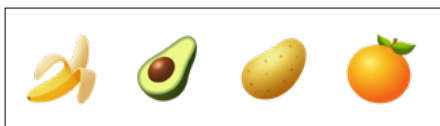
Constipation



High Blood Sugars



Shortened Treatment



Medications

Answer key on page 12

Size Matters

Portion Size: The amount of food you choose to eat at one time. Depending on the portion size, potassium in foods can vary from low to high potassium content.

Grapes

- 10 grapes= 94 mg
- 20 grapes= 188 mg
- 30 grapes= 282 mg



1% Milk

- ½ c. =183 mg
- 1 c. = 366 mg
- 2 c. = 549 mg



Cantaloupe

- ½ c. diced= 213 mg
- 1 c. cubed= 426 mg
- 2 c. cubed= 852 mg



	Low Potassium Foods <150 mg per serving	Medium Potassium Foods 150-250 mg per serving	High Potassium Foods >250 mg per serving
Fruit	Applesauce, Berries, Mango, Grapes, Pineapple, Canned Pears, Fruit Cocktail	Apples, Cherries, Pears, Oranges, Kiwi, Apricot	Bananas, Cantaloupe, Honeydew, Papaya, Pomegranate, Raisins
Vegetables	Asparagus, Cabbage (raw), Cauliflower, Iceberg Lettuce, Turnips, Cucumber (peeled), Celery, Broccoli (raw)	Brussels Sprouts, Corn, Carrots, Broccoli (cooked), Cherry Tomato, Summer Squash	Avocado, Pumpkin, Potatoes, Sweet Potatoes, Tomato Paste/Sauce/Juice
Cereals/ Starches	Pancakes, Waffles, Corn Flakes, Rice Krispies, Graham Crackers, Cream of Wheat, Oatmeal, Tortillas	Cheerios, Bran Flakes, Shredded Wheat	All Bran, Raisin Bran, Oat and Wheat Bran Muffins
Milk and Dairy	Unsalted Butter, Margarine, Parmesan/Swiss/American/Cheddar/Mozzarella Cheese, Cottage Cheese	Chocolate Ice Cream, Milk, Buttermilk, Pudding	Ricotta Cheese, Condensed Milk, Low-Fat Plain Yogurt
Protein	Macadamia/Pecans/Walnuts, Tofu	Black-Eyed Beans, Garbanzo/Chickpeas, Ham, Chicken Breast, Almonds, Peanuts, Peanut Butter, Cashews, Tuna in Water	Salmon, Crab, Catfish, Pork Loin, Black/Kidney/Pinto/Lima Beans, Soybeans, Lentils

Boil and Repeat!

Boiling food twice can help lower the amount of potassium in it. Some foods that have a lot of potassium and can be cooked this way include:



Potatoes



Sweet Potatoes



Beans



Winter Squash

TIP: Cut veggies into smaller pieces before boiling. Smaller pieces lose more potassium and cook faster!



Step 1

Prepare the food (cut or peel if needed).



Step 2

Boil in pot for 10 minutes.



Step 3

Drain the water out of the pot.



Step 4

Add fresh water and boil food until softened.



Step 5

Drain the water.



Step 6

Finish preparing food.

Potassium: Where to Find It

Nutrition Label

- Potassium values will be listed per serving size.
- Serving Size is a standard, measured amount of food that is typically eaten.

Nutrition Facts	
4 servings per container	
Serving size	1/4 pack (106g)
Amount per serving	
Calories	260
% Daily Value *	
Total Fat 1.5g	2%
Saturated Fat 0g	0%
Trans Fat 0g	
Cholesterol 0mg	0%
Sodium 440mg	19%
Total Carbohydrate 53g	19%
Dietary Fiber 9g	32%
Total Sugars 0g	
Includes 0g Added Sugars	0%
Protein 11g	
Vitamin D 0mcg	0%
Calcium 30mg	2%
Iron 2.8mg	15%
Potassium 290mg	6%
* The % Daily Value (DV) tells you how much a nutrient in a serving of food contributes to a daily diet. 2,000 calories a day is used for general nutrition advice.	

Ingredients Section

- This will show if the product contains potassium additives.
- Potassium additives are absorbed quickly by your body.
- Common Potassium Additives:
 - Potassium Chloride
 - Potassium Sorbate
 - Acesulfame Potassium
 - Potassium Phosphate
 - Potassium Lactate
 - Potassium Citrate

INGREDIENTS: ENRICHED FLOUR, RICE FLOUR, SOYBEAN OIL, CHEDDAR CHEESE, SUGAR, SALT, POTASSIUM LACTATE, ONION POWDER, WHEY, SPICES

Where is the Potassium?

Challenge: Using the nutrition labels below, circle the food or drink that has the most milligrams (mg) of potassium per serving. Remember to look at all three labels.



Potassium is a nutrient that needs to be consumed in moderation in individuals that are on dialysis. Learning how to find potassium on a label is an important skill when trying to choose renal friendly foods.



Use the number of milligrams to compare and choose foods and drinks. If a food or drink has more milligrams, it is higher in potassium.



Protein Drinks

Nutrition Facts

1 Serving Per Container
Serving size 1 Bottle (414mL)

Amount per serving

Calories **170**

% Daily Value*

Total Fat **4.5g** **6%**

Sat Fat 2.5g 13%

Trans Fat 0g

Cholest **20mg** **7%**

Sodium **260mg** **11%**

Total Carb **8g** **3%**

Dietary Fiber 1g 4%

Total Sugars 5g 0%

Protein **26g** **52%**

Vitamin D 5mcg 25%

Calcium 650mg 50%

Iron 1.3mg 8%

Potassium 860mg 20%

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

Granola Bars

Nutrition Facts

18 Servings Per Container
Serving size 1 Bar

Amount per serving

Calories **100**

% Daily Value*

Total Fat **3g** **4%**

Sat Fat 1g 5%

Trans Fat 0g

Cholest **20mg** **7%**

Sodium **0mg** **0%**

Total Carb **17g** **3%**

Dietary Fiber 1g 4%

Total Sugars 7g 14%

Protein **2g**

Vitamin D 0mcg 0%

Calcium 100mg 8%

Iron 0.6mg 2%

Potassium 60mg 60%

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

Marinara Sauce

Nutrition Facts

About 6 Servings Per Container
Serving size 1/2 Cup (123g)

Amount per serving

Calories **140**

% Daily Value*

Total Fat **10g** **13%**

Sat Fat 1.5g 8%

Trans Fat 0g

Cholest **0mg** **0%**

Sodium **430mg** **19%**

Total Carb **10g** **4%**

Dietary Fiber 2g 7%

Total Sugars 5g 0%

Protein **2g**

Vitamin D 0mcg 0%

Calcium 38mg 2%

Iron 1mg 6%

Potassium 365mg 8%

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

Challenge: Circle the food or drink that has a potassium additive in the ingredients section of the nutrition labels below.



Common potassium additives include, potassium chloride, potassium lactate, potassium citrate, potassium sorbate, and potassium phosphate.



Cinnamon Applesauce

Nutrition Facts

Serving Size: 1/2 Cup (127g)
 Servings Per Container: 5.5
 Calories: 80 Calories from Fat: 0g

Amount/Serving		%DV
Total Fat	0g	0%
Sat Fat	0g	0%
Trans Fat	0g	0%
Cholest	0mg	0%
Sodium	0mg	0%
Total Carb	19g	6%
Fiber	2g	9%
Sugars	16g	
Protein	0g	0%

Vitamin A 2% • Vitamin C 0% • Calcium 0% • Iron 2%

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

INGREDIENTS: Organic Apples and/or Organic Apple Puree, Organic Cinnamon, Organic Appie Juice Concentrate

Lemon Lime Soda

Nutrition Facts

Serving Size: 1 Can
 Calories: 0

Amount/Serving		%DV
Total Fat	0g	0%
Sodium	60mg	3%
Total Carb	0g	0%
Total Sugars	0g	0%
Protein	0g	0%
Potassium	150mg	4%

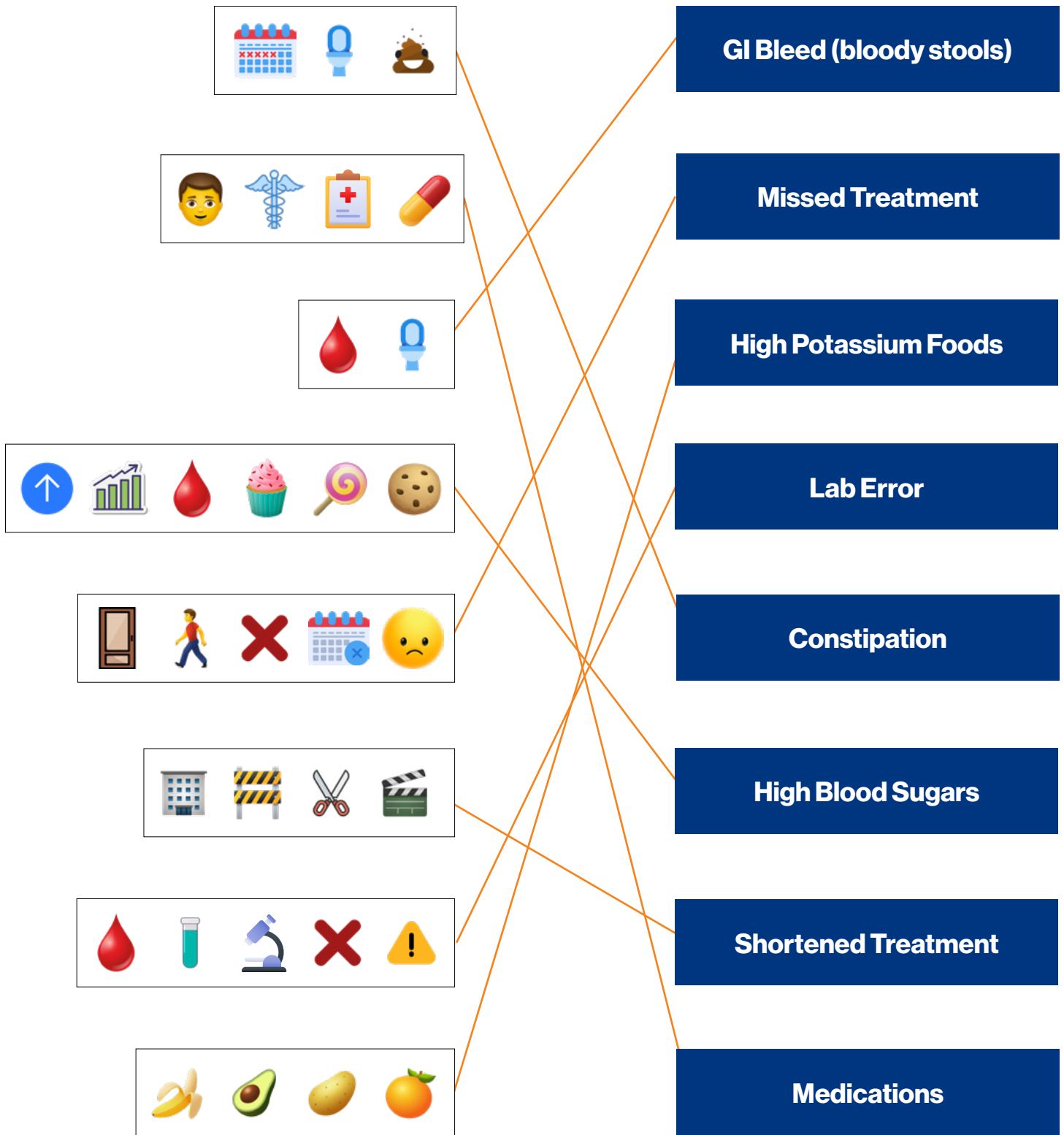
Not a significant source of sat fat, trans fat, cholest, fiber, vit. D, calcium, and iron.

INGREDIENTS: Filtered Carbonated Water, Citric Acid, Potassium Citrate, Potassium Benzoate (Preservative), Aspartame, Acesulfame Potassium, Natural Flavors, Calcium Disodium EDTA (To Protect Flavor), Phenylketonurics: Contains Phenylalanine

Answer key on page 13

Answer Key: Emoji Matching Game

Match the emojis with the word or phrase to identify different causes of high blood potassium levels.



Answer Key: Where is the Potassium?

Challenge: Using the nutrition labels below, circle the food or drink that has the most milligrams (mg) of potassium per serving. Remember to look at all three labels.



Protein Drinks

Potassium 860 mg

Challenge: Circle the food or drink that has a potassium additive in the ingredients section of the nutrition labels below.



Lemon Lime Soda

INGREDIENTS: Filtered Carbonated Water, Citric Acid, Potassium Citrate, Potassium Benzoate (Preservative), Aspartame, Acesulfame Potassium, Natural Flavors, Calcium Disodium EDTA (To Protect Flavor), Phenylketonurics: Contains Phenylalanine

Answer Key: Potassium Awareness Activities

High Potassium Word Scramble




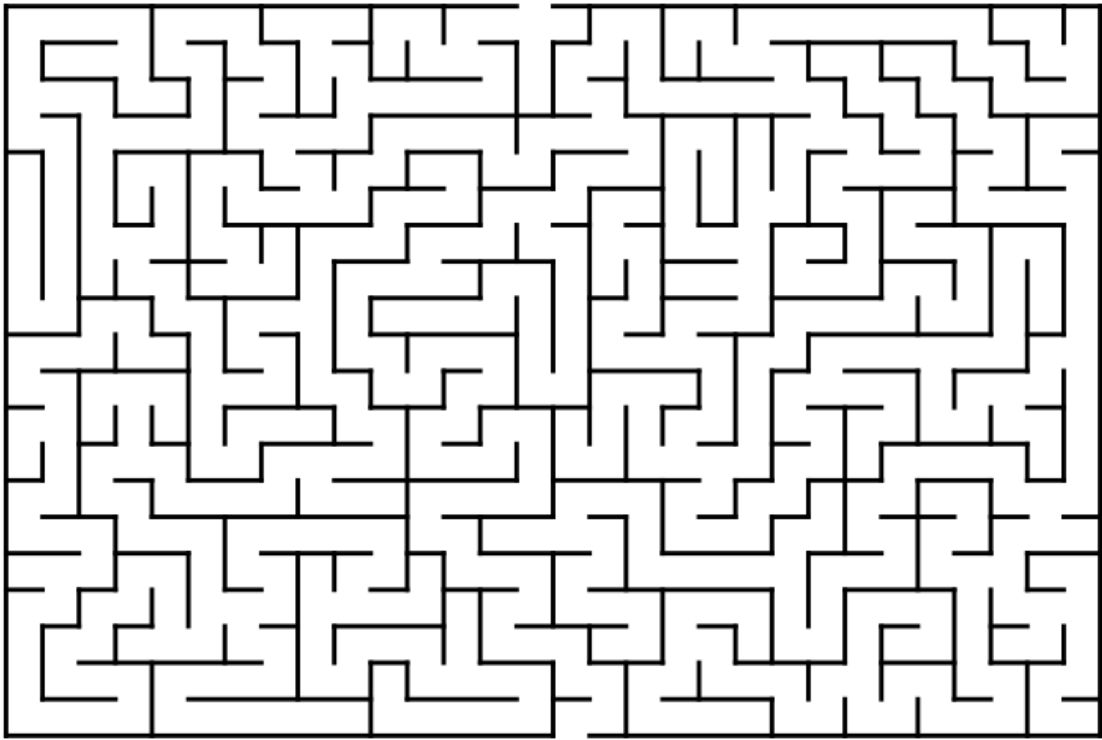
- | | | | |
|-------------|-----------------|---------------|-------------------|
| 1. esomatot | <u>tomatoes</u> | 5. anasbna | <u>bananas</u> |
| 2. npukimp | <u>pumpkin</u> | 6. laopcantue | <u>cantaloupe</u> |
| 3. rbna | <u>bran</u> | 7. mlson | <u>salmon</u> |
| 4. tapsotoe | <u>potatoes</u> | 8. siraisn | <u>raisins</u> |

Low Potassium Foods Maze

Start 1

Start 2

Start 3





For more information or to file a grievance, please contact:

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