# The Kidney Korner®

for people on dialysis from the makers of Nepro  $^{\text{\tiny ®}}$  with Carb Steady $^{\text{\tiny ®}}$ What's Inside: The Scoop on Potassium What is Potassium? ...... Page 2 What is the Role of Our Kidneys? ..... Page 2 **High and Low Potassium** Foods List ..... Page 3 **How Does My Diet Impact** My Potassium Levels? ..... Page 4 What Should My Potassium Level Be? ..... Page 4 **Potassium Food** Substitutions List ..... Page 6

# The Scoop on Potassium



# What is Potassium?

Potassium is an essential mineral that is found in many of the foods that you eat. Potassium is important for proper functioning of your body and plays an important role in keeping your heartbeat regular and your muscles working right. It is also important for maintaining fluid and electrolyte balance. The level of potassium in our blood must be kept in the right range to perform these important functions in the body. Too much or too little potassium in the blood can be dangerous. Your body gets potassium from the food you eat. While almost all foods contain some potassium, foods high in potassium include milk and dairy products and certain fruits and vegetables, like oranges, bananas, potatoes and tomatoes.

## What is the Role of Your Kidneys?

It is the job of healthy kidneys to keep the right amount of potassium in your blood. Healthy kidneys do this by removing excess potassium from the blood. For people with CKD, their kidneys no longer work properly and cannot remove excess potassium. As a result, high levels can build up in the blood. A high level of potassium in the blood is known as hyperkalemia. You may feel nausea, weakness, numbness and tingling if your potassium is at a high level. If your potassium becomes too high, it can cause an irregular heartbeat or a heart attack. High potassium levels can result from skipped or shortened dialysis treatments or eating too many foods high in potassium.

## **High Potassium Foods List**



### **Fruits** Apricots, fresh

Avocado Banana Cantaloupe Baked Beans Dates **Dried Fruits** 

Figs, dried Grapefruit Juice Honeydew

Kiwi Mango Nectarine

Orange/Orange Juice

Papaya Pomegranate/

Pomegranate Juice Prunes/Prune Juice

Raisins

#### Vegetables

Acorn Squash Artichoke Bamboo Shoots

Butternut Squash Refried Beans

Beets

Black Beans Broccoli, cooked **Brussels Sprouts** Chinese Cabbage

Carrots, raw

Dried Beans and Peas Greens, except Kale

**Hubbard Squash** Kohlrabi Lentils Legumes

Mushrooms, canned

**Parsnips** 

Potatoes, white and sweet

Pumpkin Rutabagas Spinach

Tomatoes/Tomato Juice

Vegetable Juice

#### **Other Foods**

Bran/Bran Products

Chocolate Granola Molasses Nuts and Seeds Peanut Butter

Salt Substitutes/Lite Salt

Salt Free Broth

Other Foods

Cake: angel, yellow Coffee (limit to 8 oz)

Tea (limit to 16 ounces)

Rice

Pasta Bread\*

Pies\*\*

Cookies

Popcorn

Pretzels

**Noodles** 

Milk Yogurt Ice cream

## **Low Potassium Foods List**



#### **Fruits**

Apple/Apple Juice **Applesauce** Apricots, canned Blackberries

Blueberries Cherries

Cranberries Fruit Cocktail

Grapes/Grape Juice

Grapefruit

Mandarin oranges Peaches, fresh or canned Pears, fresh or canned

Pineapple/

Pineapple Juice

Plums Raspberries Strawberries

**Tangerine** Watermelon

### Vegetables

Alfalfa Sprouts Asparagus

Beans, green or wax Cabbage, green and red

Carrots, cooked

Celery

Corn, fresh, frozen

Cucumber Eggplant Kale

Lettuce Mixed Vegetables

Mushrooms, fresh Okra

Onions Peas, green **Peppers** Radishes Rhubarb

Water Chestnuts, canned

Yellow Squash Zucchini Squash

## Watercress

- \* Including bread products (not whole grains)
- \*\* Without chocolate or high potassium fruit

## **How Does My Diet Impact My Potassium Level?**

Potassium comes from the foods you eat. Dialysis treatments help remove excess potassium from the blood, but levels can still rise between treatments, so it is important to watch your diet and intake of certain foods. You can help control your potassium level by limiting the foods you eat that are high in potassium. There are some general guidelines you can follow to help limit the amount of potassium in your diet, as well as foods you can choose more often and less often based on potassium content.

## Diet Recommendations to Help Limit Potassium Intake:

- Choose foods low in potassium (see Low Potassium Foods List on the previous page)
- Limit foods high in potassium (see High Potassium Foods List on the previous page)
- Do not use or consume liquids from canned fruits and vegetables
- Avoid salt substitutes and other seasonings that contain potassium
- Read labels on "low salt" or "low sodium" foods to be sure

- potassium ingredients, like potassium chloride, are not added
- Pay attention to serving sizes some low potassium foods can become high potassium foods if larger serving sizes are eaten
- Try substituting certain low potassium fruits, vegetables and other foods for high potassium foods (see Potassium Food Substitutions List on the next page)
- Leach high potassium vegetables



Be sure to ask your doctor and/or dietitian about your monthly blood potassium level so you can know how well you are keeping it in line.

## What Should My Potassium Level Be?

In order for potassium to perform its functions in the body, blood levels must be kept to the right range. Levels that are too high or too low can be dangerous. Blood tests are performed regularly to help your doctor and dietitian evaluate your potassium levels.

Recommended Level:

3.5-5.0 mEq/L

High Level:

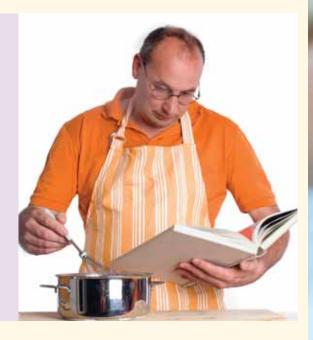
5.1-6.0 mEq/L

Dangerous Level:

>6.0 mEq/L

## **Potassium Food Substitutions List:**

### Try these Instead of these Apple, Grape or Cranberry juice ....... Orange juice Apple ...... Banana Mandarin oranges ...... Fresh orange Watermelon ...... Cantaloupe Pineapple ...... Papaya Plum ...... Nectarine Green Beans...... Dried Beans and Peas Zucchini ...... Acorn Squash Peppers ...... Tomatoes Nondairy creamer or unenriched rice milk ...... Milk Sherbet ...... Ice cream



## What is leaching vegetables?

Leaching is a cooking method that helps you enjoy some of your favorite high potassium vegetables. The process of leaching will help pull some potassium out of high potassium vegetables. It is important to remember that this process does not pull out all of the potassium. You must still limit the amount of leached high potassium vegetables you eat.

#### How to leach vegetables:

For potatoes, carrots, beets, and rutabagas:

- 1. Peel the vegetable and place in cold water
- 2. Slice the vegetable 1/8 inch thick
- 3. Rinse in warm water for a few seconds

- 4. Soak for a minimum of two hours in warm water. Use ten times the amount of water to the amount of vegetables. If soaking longer, change the water every four hours.
- 5. Rinse under warm water again for a few seconds.
- 6. Cook vegetable with five times the amount of water to the amount of vegetable.

For squash, mushrooms, cauliflower, and frozen greens:

- 1. Allow frozen vegetable to thaw to room temperature and drain.
- 2. Rinse fresh and frozen vegetables in warm water for a few seconds.
- 3. Follow steps 4 through 6 on "How to leach vegetables."

Potassium is an important mineral in your diet and for your body. However, with CKD, you need to watch the amount of potassium you eat so your blood levels do not reach high levels, which can be dangerous.

Be sure to talk to your doctor and/or dietitian abouy how much potassium you should eat each day. As always, work with your dietitian for the best diet and eating plan for you based on your individual needs.



## Renal nutrition for real life

- Excellent source of protein
- Low in phosphorus, potassium and sodium
- Carb Steady® carbohydrate blend contains ingredients shown to help manage blood sugar levels
- Tastes great

Look for Nepro next to Glucerna in the pharmacy sections of these stores:







With us, it's personal.

Or you can order Nepro online at AbbottStore.com or by calling 1-800-986-8502

> Abbott Nutrition Abbott Laboratories Columbus, Ohio 43215-1724 USA



## WORD SEARCH

**LEACHING ZUCCHINI KIDNEYS** 

**POTASSIUM** PINEAPPLE VEGETABLE CUCUMBER

STRAWBERRIES POPCORN WATERMELLON ASPARAGUS **BLUEBERRIES MUSHROOMS** 

**TANGERINE CHERRIES** 

LSHNWNIRYNPOLSVRL ARSEARCCUCUMBERAR P P R M I H H M H C M A G E C P S RIASIESIBSSEREOGB SRGKRVSPAMTRETZUT BUERUAYNOAELABUPU IRICARROBAPSLNCAC REGELPRLLPSUORCEA SESTEHELAIEGTAHRS WHGHSABEUBOATAISO MKIUCLNMENIREGNAT AIMHLIARNVHAPSIYG ND I L PN R E G P O P C O R N R ANUCTICTSORSCASMR GEUCEZRASWEAIRENE MYUSTRAWBERRIESRM RSTLZPRALPEOEBYUU





## **Zucchini Muffins**

Nutrition Facts	
Serving Size: 1 Muffin Servings per Recipe: 12	
Amount per Serving	
Calories 210	Calories from Fat 70
Total Fat	8 g
Saturated Fa	at 1 g
Cholesterol	35 mg
Sodium	280 mg
Total Carbohyo	lrate 28 g
Dietary Fibe	r 1 g
Sugars	9 g
Protein	5 g
Vitamin A	125 IU
Vitamin C	4 mg
Calcium 50 m	
Iron	1.6 mg
Phosphorus	55 mg
Potassium	85 mg

Use under medical supervision.

## **Zucchini Muffins**

Servings: 12 Serving size: 1 Muffin

#### Ingredients:

2 cups all-purpose flour

½ cup sugar substitute for baking, such as Splenda

 $\frac{1}{2}$  teaspoon salt

2 teaspoons baking powder ½ teaspoon baking soda

½ teaspoon ground cinnamon

½ teaspoon ground allspice

1 cup grated zucchini

1 cup (8 ounces) Homemade Vanilla Nepro with Carb Steady

2 large eggs

1/4 cup vegetable oil

2 teaspoons vanilla extract

#### **Directions**

- 1. Preheat the oven to 400 degrees F. Line a 12-cup muffin pan with paper liners.
- 2. In a large mixing bowl, combine the flour, sugar substitute, salt, baking powder, baking soda, cinnamon and allspice.
- 3. In another bowl, whisk together the Nepro with Carb Steady, eggs, oil and vanilla extract; mix in the zucchini. Pour into the dry ingredients and mix just until the flour is no longer visible.
- 4. Spoon the batter into the muffin pan.
- 5. Place the pan on the center rack of the oven and bake for 13 to 15 minutes, or until a toothpick is inserted into the center of a muffin comes out clean.
- 6. Remove the muffins from the pan and allow them to cool.

Note: Muffins can be frozen individually.

Serves: 12 • Serving Size: 1 Muffin Exchanges: 2 Starch, 1/2 Medium-Fat Meat, 1 Fat Carb Choices: 2