What CAN I Eat? Nutrition for Dialysis Patients

Janeen Leon, MS, RDN, LD
Case Western Reserve University

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Thank you to our speaker!

- Janeen Leon, MS, RDN, LD
- Clinical dietitian, researcher, program evaluator at the MetroHealth Medical Center, Cleveland, OH
- Adjunct Instructor of Medicine at the Case Western Reserve University School of Medicine.
- Recipient of this year’s Joel D. Kopple Award for her research and nutrition education on phosphorus additives
In this webinar we will explore:

1. How much protein is required for dialysis? How can we meet this protein requirement?
2. What is the difference between phosphorus and potassium? What can be safely eaten to manage these?
3. How to manage fluid balance through careful sodium (salt) and fluid use
Good Nutrition

• Avoids malnutrition and preserves or achieves healthy body weight

• Promotes healthy body functions, reducing risks of uncontrolled diabetes, high blood pressure, heart disease, etc.

• Prevents mineral and electrolyte abnormalities

• Promotes better immunity – ability to fight infections
Good Nutrition

Starts at the grocery store or restaurant
Good Nutrition

And ends at the plate in front of you
Food is Derived from Basic Nutrition Components

Macronutrients “Major” Nutrients

• Protein
  – poultry, meat, fish, eggs, dairy
  – soy, vegetables, grains

• Carbohydrates – starches, sugars, fiber
  vegetables, fruits, grains

• Fat – animal and plant based
Basic Nutrition Components

Micronutrients “Little” Nutrients

*essential to the body – many roles “jobs”*

- Vitamins – B (many), C, D, E, K
- Minerals – potassium, phosphorus, calcium, sodium, iron
What Can I Eat?

1. How much protein is required for dialysis? How can we meet this protein requirement?

2. What is the difference between phosphorus and potassium? What can be safely eaten to manage these?

3. Learn how to manage fluid balance through careful sodium (salt) and fluid use.
Protein

• Building blocks to heal, regenerate, preserve
• Needs are higher than usual because of dialysis losses
• Amount required is primarily based on body weight
• Discuss with your renal dietitian, especially if over- or underweight
Protein – How Much Each Day?

= 1.2-1.3 g protein/kg for hemodialysis
= 1.5 g protein/kg for peritoneal dialysis

75 kg (165 lb) person x 1.2 g/kg = 90 g protein/day
or about 8 ounces of meat/fish/poultry/eggs per day

Most people need between 6-10 ounces high protein foods each day.
8 Ounces is Half A Pound! That Sounds Like a Lot!

Break it Down -

21 grams or a 3 ounce portion = size of a deck of cards or the palm of your hand for Meat/poultry/seafood/fish

14 grams = 2 eggs
   2 eggs = 14 grams

7 grams = 1 ounce low fat cheese

4 grams = ½ cup milk or yogurt (one per day)
Make it Work for You!

Dialysis gets in the way of breakfast?

• Have 4 ounces meat/fish/poultry at both lunch and dinner

OR

You’d rather have a big breakfast and skip lunch?

• Fine! Have 2 eggs (2 oz) and a mid-sized homemade turkey sausage patty for breakfast (2 ounces) and 4 oz fish/poultry/meat for dinner
Make it Work for You!

• Prefer to graze?
  – 1 egg breakfast
  – 1 slice low sodium Swiss cheese for morning snack
  – 2 ounce low sodium deli turkey for lunch
  – 1 deviled egg for afternoon snack
  – 3 oz trout for dinner

• Divide it up the way that fits your life and appetite best! Discuss with your dietitian so you know how to best distribute your phosphate binders.
Choose Carefully
In this webinar we will explore:

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The “P” Words – CONFUSING!?!?

Phosphorus ⫸

• Affects bone and heart disease risk
• Naturally in many foods (limit these!)
• Added as ingredient in many processed foods (avoid these!)

800 mg/day limit

Potassium ⚡

• Affects electrical conductivity in heart
• Naturally in many foods (limit these!)
• Added as ingredient in some processed foods (avoid these!)

2000 mg/day limit
The “P” Words – CONFUSING!?!?

Phosphorus

• Naturally in animal foods (eggs, dairy, meat/poultry/fish) & whole grains
• Added to chicken, seafood, frozen foods, baked goods, drinks, sauces

Potassium

• Naturally in dairy, meat/poultry/fish, dried beans, potatoes, some fruits/vegetables
• Added to low sodium foods, especially soups, broths and to some juices, etc.
The “P” Words – Where!?!?

Phosphorus ⫸

• Look for “PHOS” in ingredient label to find additives.

trisodium phosphate

• Not required to be listed on nutrition facts label.

Potassium 💒

• Look on nutrition facts label. Is required starting July 2018.

• Know which foods to avoid. Carefully read ingredient lists for low sodium products.
## Lower Potassium Vegetables

<table>
<thead>
<tr>
<th>Lower Potassium Vegetables</th>
<th>Lower Potassium Vegetables</th>
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</thead>
<tbody>
<tr>
<td>Lettuce</td>
<td>Onions</td>
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<tr>
<td>Celery</td>
<td>Garlic</td>
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<tr>
<td>Cucumber</td>
<td>Green beans</td>
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<tr>
<td>Carrots</td>
<td>Asparagus</td>
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<tr>
<td>Bell peppers</td>
<td>Snow pea pods</td>
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<tr>
<td>Radish</td>
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<td>Zucchini</td>
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<td>Yellow squash</td>
<td>Raw spinach</td>
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<td>Cauliflower</td>
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<td>Corn</td>
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<td>Cabbage</td>
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<td>Mushrooms</td>
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<td>Eggplant</td>
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Low Potassium Vegetables

• Aim for 3-4 servings a day (1/2 cup cooked or 1 cup raw)

• Enjoy a variety of ways
  • Raw, Steamed, Microwaved, Broiled, Baked, Pan-Fried
    – Toss with homemade Italian dressing and grill
    – Toss with oil and herbs and roast
    – Stir fry with a little sesame oil, ginger, broth or wine, pinch of sugar and lemon juice
    – Fresh squeeze of lemon or lime juice
Low Potassium Fruits

• Aim for 2-3 servings a day (1/2 cup canned or 1 medium piece)

• Enjoy a variety of ways

• Raw, Canned, Frozen
  – Dip in cream cheese blended with fresh fruit
  – Make into a crisp (i.e. apple crisp)
  – Dip in whipped cream
  – Make into small smoothie, add scoop of whey protein
### Lower Potassium Fruits

<table>
<thead>
<tr>
<th>Apple</th>
<th>Pineapple</th>
<th>Blackberries</th>
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</thead>
<tbody>
<tr>
<td>Pear</td>
<td>Cherries</td>
<td>Raspberries</td>
</tr>
<tr>
<td>Strawberries</td>
<td>Plum</td>
<td>Tangerine/Halo</td>
</tr>
<tr>
<td>Blueberries</td>
<td>Watermelon 1 cup</td>
<td></td>
</tr>
<tr>
<td>Cranberries</td>
<td>Fruit cocktail</td>
<td></td>
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<tr>
<td>Mandarin Oranges</td>
<td></td>
<td>Applesauce</td>
</tr>
<tr>
<td>Grapes</td>
<td></td>
<td>Small peach/nectarine</td>
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</tbody>
</table>
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3. Learn how to manage fluid balance through careful sodium (salt) and fluid use
Sodium and Fluid

Heavily influence one another.

Sodium limit to 1500-2000 mg/day. Salt is made up of sodium.

1 measuring teaspoon of salt has 2300 mg sodium

• Read food labels.
• Caution with “low sodium” – read for potassium
• Sodium is often in foods that do not taste salty – bread, unseasoned meat
Seasoning Without Salt

Generous use of fresh & dried herbs – grow your own!

- Basil
- Oregano
- Garlic
- Chives
- Sage
- Thyme
- Rosemary

- Cilantro
- Mint
- Parsley
- Squeeze of lemon or lime “brightens” flavors
- Peppers – jalapeno and others
Fluid

• Accumulates in your body between treatments
  – Typically limit to 4 cups a day if 3 times a week dialysis. Less restrictive if peritoneal or daily home dialysis (maybe no restrictions).

• Liquids include anything that is liquid at room temperature
  – Ice
  – Soups
  – Pudding
  - Beverages
  - Smoothies
Fluid – What to Drink

• Within Your Fluid Limit – watch for “PHOS”
  – If overweight – mostly water or 0-calorie drinks
  – If underweight – something with calories
    • Low potassium fruit juice – small servings – grape, cran-apple
    • Lemonade
    • Kool-Aid
    • Clear soda (i.e. Sierra Mist)
    • Sweet Tea
    • Popsicle
  – Gum, hard candies, lemon drops, mints for thirst
Putting it All Together - Dinner

Fruit:
- Strawberries

Vegetables:
- Salad with home-Made Italian
- Green Beans

Grains:
- Rice
- Buttered Roll

Protein:
- Grilled Chicken Thighs

Dairy

Skip the dairy

Added calories if Needed:
- Butter on roll, green beans, & rice
- Fry the chicken
- Whipped cream for berries
Putting it All Together - Lunch

Fruit: Grapes

Vegetables: Raw baby carrots & Celery dipped in Ranch
Shredded cucumber Bell pepper (red) Carrot

Dairy: ½ cup Greek yogurt

Grains: Tortilla wrap

Protein: 3 oz low salt Deli turkey
Fruit Salad:
Blueberries, strawberries, grapes, apple
Slices mixed

Vegetables:
Coleslaw vinaigrette
½ ear sweet corn
Chunked cucumbers, Zucchini, shredded Carrots, a few quartered grape tomatoes in pasta salad

Dairy:
skip

Grains:
Pasta salad

Protein:
3 oz Steak
Putting it All Together - Breakfast

Fruit:
In season –
Fresh cherries

Vegetables:
Sautéed mushrooms, Peppers, onions

Dairy:
½ cup milk

Grains:
2 slices buttered toast

Protein:
2 egg omelet
1 oz cheddar cheese
Putting it All Together - Budget

Fruit: Mandarin oranges

Vegetables: Canned green Beans rinsed

Dairy: ½ cup milk

Grains: 1 cup buttered noodles

Protein: 3 chicken drumsticks
Meals Do Not Have to Be Hard

• Plan ahead – use store flyers to find sale items
• Balance fresh with frozen produce - use it up!
• Ok to use sandwiches, wraps, main-dish salads.
  – Include all the food groups from healthy plate – protein, grain, vegetable, fruit
• Leverage your “village” – church? Friends? Extended family? To stock your freezer with prepared meals created with your input.
Meals Do Not Have to Be Hard

• Use your freezer!
• Just as fast to make 2 meatloaves or 2 pans of meatballs and freeze one
• Rice
• Pasta freezes fine – toss with oil first. Dip in boiling water a minute to thaw/reheat
• Keep turkey or beef burger patties ready to cook
• Cook homemade turkey sausage (ground turkey, black pepper, sage to taste)
Meals Do Not Have to Be Hard

• Plan around your meat/chicken/fish.
• Pick a theme of the day
  – Monday Italian
  – Tuesday Mexican
  – Wednesday Chicken
  – Thursday Beef
  – Friday Seafood/Fish
  – Saturday Sandwiches
  – Sunday Hearty Salads
In this webinar we explored:

1. Protein - how much is required? How can we meet this protein requirement?

2. The difference between phosphorus and potassium and how to safely manage these.

3. Management of fluid balance through careful sodium (salt) and fluid use

4. How to pull this all together into healthy plates for you – and it does NOT have to be hard to do.
QUESTIONS?

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Go Cavs!
Join us for next month’s webinar!

Staying Employed with Kidney Disease

July 19, 2016
1:00 – 2:00 PM (Eastern Time)

Join us to learn about:

• Making plans and goals when you have kidney disease
• The best way to have insurance
• Social Security Work Incentives
• Treatment choices that support employment.

Go to www.KidneyFund.org/webinars to learn more and register!

Mary Beth Callahan, ACSW, LCSW
Dallas Transplant Institute