

## What CAN I Eat? Nutrition for Dialysis Patients



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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 midsized 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**





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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**

Lettuce

Celery

Cucumber

**Carrots** 

Bell peppers

Radish

Zucchini

Onions

Garlic

Green beans

Asparagus

Snow pea pods

Yellow squash

Raw spinach

Cauliflower

Corn

Cabbage

Mushrooms

Eggplant





## 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**

Apple Pineapple

Pear Cherries

Strawberries Plum

Blueberries

Cranberries

Mandarin Oranges

Grapes

Blackberries

Raspberries

Tangerine/Halo

Watermelon (1 cup!)

Fruit cocktail

**Applesauce** 

Small peach/nectarine





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#### **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

- Beverages

Soups

- Smoothies

Pudding

#### 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

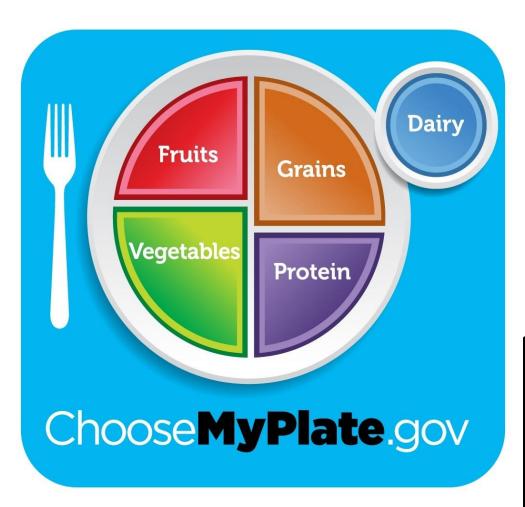


## **Putting it All Together - Dinner**

Fruit: Strawberries

Vegetables: Salad with home-Made Italian

**Green Beans** 



Skip the dairy

Grains:
Rice
Buttered Roll

Protein: Grilled Chicken Thighs

Added calories if
Needed:
Butter on roll,
green beans, & rice
Fry the chicken
Whipped cream for
berries

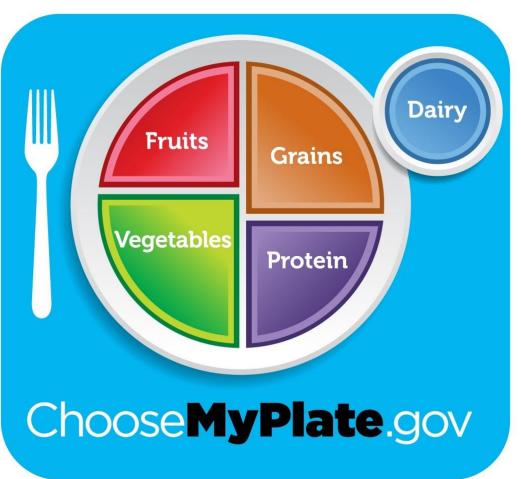


## **Putting it All Together - Lunch**

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



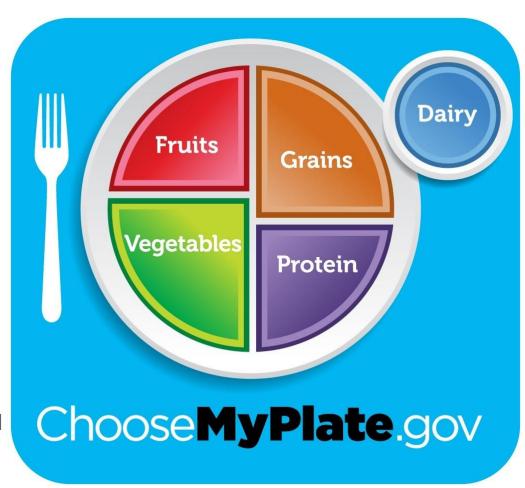
## **Putting it All Together - Entertain**

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

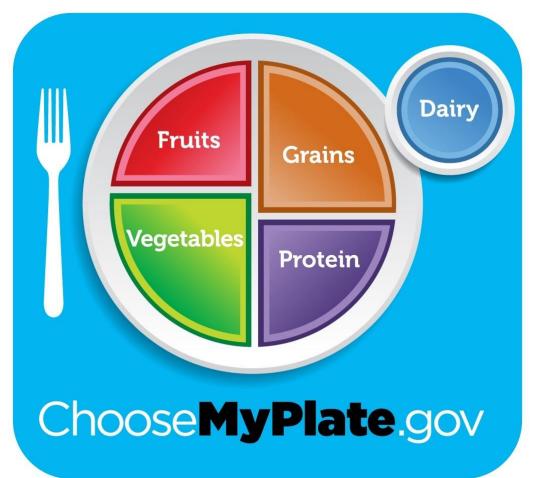
Protein: 3 oz Steak



## Putting it All Together - Breakfast

Fruit: In season – Fresh cherries

Vegetables: Sautéed mushrooms, Peppers, onions



Dairy: ½ cup milk

Grains:
2 slices buttered toast

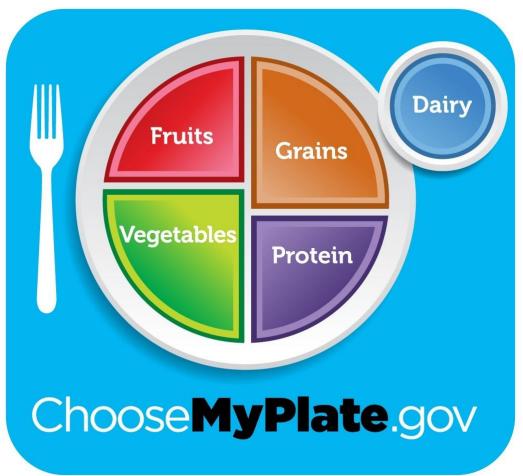
Protein:
2 egg omelet
1 oz cheddar
cheese



## 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

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- 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



Mary Beth Callahan, ACSW, LCSW Dallas Transplant Institute

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 <a href="https://www.KidneyFund.org/webinars">www.KidneyFund.org/webinars</a> to learn more and register!