

Protein: who needs it anyway? You do!

Created and presented by Carolyn Feibig, MS, RD, LD

Thanks to our speaker!



Carolyn Feibig, MS, RD, LD

- Kidney Transplant Dietitian at the George Washington University Hospital
- Passionate about educating the general public about the importance of early detection of kidney disease and the importance of a healthy diet for kidney health

Background

- Carolyn has worked as a Registered Dietitian at The George Washington University Hospital Transplant Institute (GWTI) since 2015.
- She is originally from Saint Louis, MO and moved to Washington, DC in 2011. Before working at GWTI she worked for a dialysis company in a suburb of Washington, DC.
- Carolyn first became interested in kidney disease when her nephew was born with only one kidney.

What is Protein

- Protein is one of the three essential building blocks necessary for life
- Protein is a macronutrient
- Protein is one of three macronutrients found in foods
 - The other two are carbohydrates and fat

What is Protein

- Protein most commonly known for building and repairing muscles
- Protein also plays an important role in many of your body's functions

What is Protein

- Protein is made from long chains of amino acids
- When protein is digested it is broken down in to amino acids
- Protein is found in both animal and plant sources

Complete Proteins

- A food that contain all 9 essential amino acids are called **complete proteins**
- The 9 essential amino acids are: histidine, isoleucine, leucine, lysine, methionine, phenylalanine, threonine, tryptophan, and valine

Complete Proteins

Foods that are a complete protein

- » Red Meat
- » Poultry
- » Fish
- » Eggs
- » Dairy
- » Soy and
- » Quinoa

Complete Proteins

- Research has shown people on dialysis have an increased benefit from protein that comes from animal
- *When you are on dialysis your protein needs are higher*
 - Dialysis removes some protein during the process
 - The main reason your needs are higher is because your body is under stress and has increased protein needs

Protein

Recommended protein for dialysis:
1.2-1.4 g/kg 60-70 % high biological value

84-98 g protein/day*

9 oz HBV protein translates to:

6-7 oz meat

2 eggs

½ cup milk

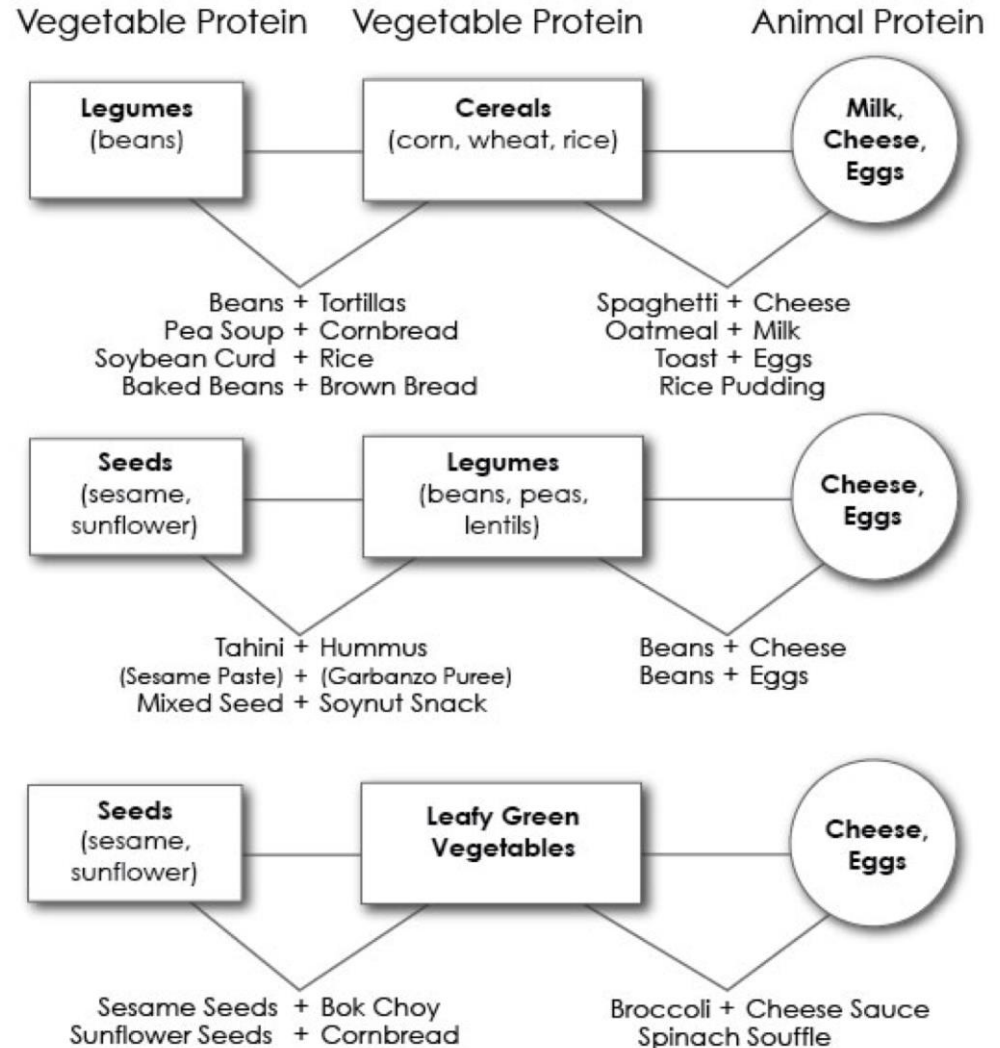
Complementary Proteins

- Plant sources are not complete proteins, meaning they don't have all 9 essential amino acids
- These are called **complementary proteins**.
 - When paired together they provide all 9 essential amino acids

Complementary Proteins

- Legumes (beans) with grains, nuts, seed, or dairy
- Grains with dairy
- Dairy with nuts or seeds
- Dairy with nuts or seeds and legumes

Complementary Protein Combination



Protein

- Many plant sources of protein, like beans, are on the *list* of foods not recommended to eat when on dialysis
- If you want to eat a more vegetarian lifestyle follow this simple rule
 - If you are going to eat beans don't eat meat in the same meal
 - And always ask your dietitian if this is a good choice for you

Animal Protein K+ per 3 ounce serving

Vegetable Protein K+ per ½ cup serving

Food K+ (in mg)

• Beef (roast)	320mg	• Beans (lima)	280mg
• Beef (ground)	200mg	• Garbanzo Beans	206mg
• Chicken	220mg	• Beans (white-canned)	595mg
• Clams (canned)	535mg	• Black/Kidney Beans	300-305mg
• Crab	225mg	• Quinoa	159mg
• Fish	300- 480mg	• Lentils	365mg
• Canned Tuna	200mg	• Nuts (1oz)	200mg
• Pork	350mg	• Pistachios (1oz)	295mg
• Turkey	250mg	• Walnuts/pecans/macadamia (1oz)	125mg
• Milk (1cup)	350-380mg	• Soy Milk (1cup)	300mg
		• Oatmeal	80mg
		• Rice	50mg
		• Hummus (1tbsp)	32mg

What is Albumin?

- Albumin is a protein made by the liver from the foods you eat
- I like to think of albumin as your body's mailman delivering nutrients and other necessary items to your cells
- Albumin also keeps fluid from leaking out of blood vessels, and helps fight infection

Why Albumin is Important

Your albumin levels can be negatively affected by:

- »infection,
- »inflammation,
- »edema (swelling)
- »fluid around your lungs
- »or a recent hospitalization

Why Albumin is Important

- Albumin levels are checked monthly when you are on dialysis
- Your goal is a level of 4.0 or higher
 - Research has shown that people on dialysis with an albumin level of 4.0 or higher have
 - fewer hospitalizations
 - lower risk of death

Albumin and Fluid

- It is important to follow your fluid restriction so the fluid does not leak out of your blood vessels
- If this happens the fluid moves into your 3rd space, the space between your cells and blood vessels
- Albumin helps hold the fluid in your blood vessels making it easier for the dialysis machine to remove

Fluid

- Too much fluid can cause a lot of problems
- Swelling around your feet and ankles
- Can cause fluid around your lungs making it hard to breath and could lead to pneumonia
- Can stretch out your heart making it weak and could cause heart failure
- Extra stress put on your body because the machine has to “pull” harder to remove the fluid
- Low albumin

Tips for Boosting Your Albumin

- Drink 32oz or less of fluid a day
- Eat a protein source at every meal
- Have a bedtime snack
 - Our livers store extra energy that is used when we haven't eaten in a while
 - If we don't have enough energy stored, your body uses our protein

Tips for Boosting Your Albumin

- Eat **ONE** Brazil nut daily
 - Brazil nuts are high in an antioxidant called selenium. Selenium helps lower the inflammation that can lower albumin
- Only 1 Brazil nut – more will raise your potassium and phosphorus levels

- Brazil Nuts

1 Brazil nut (5g) contains:
96 mcg Selenium
36 mg Phosphorus
34 mg Potassium



Tips for Boosting Your Albumin

- When you don't have much of an appetite try having a teaspoon of chicken, tuna, or egg salad on a cracker every time you walk by the fridge
- Try a protein supplement like a protein bar or powder

Protein Supplements

- When choosing a protein supplement make sure to READ the label first!
- You are looking for a protein supplement that has at least 10gm of protein per serving and is lower in potassium.
 - Goal is less than 200mg of potassium

Protein Supplements

- Zone Perfect
- Lara Bars
- Luna Bars
- Kind Bars
- Clif Bars
- Clif Builder's Protein Bars
- EAS Protein Powder
- Muscle Milk Protein Powder*
- Muscle Milk Low Cal Protein Powder
- Market Pantry Protein Powder
- Atkins Protein Drinks*
- AdvantEDGE Protein Drinks*
- Glucerna*
- Ensure*
- Nepro

***Over 300mg in
Potassium**

High Protein Snacks

<i>Product</i>	<i>Protein (in grams)</i>	<i>Potassium (in mg)</i>
<i>Special K Protein Cereal</i>	<i>14gm</i>	<i>125mg</i>
<i>Kashi Go Lean: Toasted Berry Crisp</i>	<i>9gm</i>	<i>210mg</i>
<i>Kashi Oat Cereal</i>	<i>5gm</i>	<i>115mg</i>
<i>Canned Tuna</i>	<i>10mg</i>	<i>100mg</i>
<i>Kashi Go Lean: Original Cereal</i>	<i>12gm</i>	<i>390mg*</i> High in Potassium

Protein Supplements

- Beware of protein supplements that do not list the potassium content
- Remember potassium controls your muscle contractions including your heart
- If your potassium is too high it can affect your heart function and possibly cause a heart attack

Protein Supplements

Supplements that DO NOT list potassium on the label

- » Think Thin
- » Special K Protein Bites
- » Oatmega
- » Aloha
- » Pure Protein
- » Olly - Nourishing Smoothie Powder

Protein Supplements

Some drinks and bars have less protein than you might think

- Quaker Chew Protein Bars : 1 gram
- Nature Valley Crunchy Granola Bars : 3 grams
- Almond Breeze (Milk Substitute) : 1 gram
- Coconut Milk (Milk Substitute) : 0 grams
- Rice Dream (Milk Substitute) : 1 gram

Protein Supplements

- Some dialysis facilities may give you a protein supplement if your albumin is low.
- If your albumin is less than 3.5mg/dL for more than 3 months you could get a form of protein through an IV during your dialysis treatment
 - Talk to your dietitian about this type of treatment to see if it is right for you

Conclusion

- Protein is a very important part of your diet
- Your protein needs are higher if you are on dialysis
- Albumin helps hold the fluid in your blood vessels, helps fight infection, etc.
- Take your binder whenever you are eating - even when having a snack, especially if your snack is a protein supplement
- When looking to change your diet habits talk with your dietitian and your nephrologist

Questions?



Join us for next month's webinar!

Thursday, July 27, 2-3 p.m. (ET)



Dr. Paul Bennett

Director of Medical & Clinical Affairs at
Satellite Healthcare

Laughter therapy in dialysis: exercise, activity and wellness

Join us to learn about:

- How laughter therapy is used during dialysis
- The benefits of laughter therapy
- Existing laughter therapy programs, and how to use these in your own life

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