

Silver Award Project Utility

Facility: Dialysis Clinic, Inc--Bowling Green

Silver Award User: Marianne Meyer

Project Status: Active

1. Description of Project:

DCI Bowling Green has a history of low albumin percentage on monthly QAPI reporting. A project was planned with the goal of increasing the knowledge of protein requirements in the patients who receive dialysis at DCI Bowling Green. This included one patient on peritoneal dialysis.

In early December, each patient was given a pre-test of their knowledge of the various aspects of protein. As recognition for participating in the test, all patients were entered into a drawing for two frozen turkeys (high protein item). In addition, a Holiday breakfast consisting of French Toast and scrambled eggs was provided to all the patients. The handout, "50 Ways to Eat an Egg", was also given to each patient in the clinic. (See attachment)

In January, several different kidney-friendly protein items were on display and patients were provided with samples of a variety of the different high protein products available at the retail level. All were very well received. Patients were also given a handout of kidney-friendly protein supplements on the market. (See attachments)

In February, patients participated in a Protein Food Scavenger Hunt. Twenty photos of high protein food items were strategically placed around the clinic. Patients were to look for these items and check them off their "score" sheet when located. (See attachment) The idea was to further educate the patients in different types of protein foods that would increase the amount and variety of protein in their daily diet.

March quickly rolled around! This month, the patients were provided with a sample of a high protein rice krispie treat. The recipe used Procel, a powdered whey protein supplement manufactured by Global Health Products. The treats were well received by both patients and staff! The recipe was provided to all the patients. (See attachment)

The Protein Initiative concluded in April. On the first of two monthly visits by the RDN in the clinic, the patients were provided a "study-guide" for the post-test which would be given two weeks later when the RDN returned. The post-test was identical to the pre-test. The study guide provided ALL the answers that were on the test. In addition, the patients were told that ALL the answers were in the study-guide and highlighted in red print! (See attachment). To provide further education, a very colorful poster was placed in an area that patients see when they leave the clinic. All answers to the test were displayed on this bulletin board. Two weeks later, the test was given to all patients in the clinic with the RDN assisting some of those whose arms were immobile due to their dialysis access. The tests were later graded and results were compared to the pre-test. See results below in Outcomes Measured. As recognition for participating in the Protein Initiative, each patient received a 3 to 5 pound roll of ground beef, another high protein food item! The initial plan was to provide each patient a 3 pound roll of hamburger. However, due to the unavailability of ground beef at the local Wal-Mart (because of Covid-19), it was not possible to give everyone 3 pound rolls. Some patients received a 5 pound roll. Patients were very happy with their gift!

2. Outcomes Measured:

Two outcomes were measured for this project. Monthly albumin levels and pre- and post-test results were compared for improvement in knowledge.

3. Summary of Outcomes/Results:

Albumin level was measured as it would be measured for monthly QAPI meetings. Our goal in the clinic is for 40% of patients to have albumin levels of 4.0 mg/dl or greater. In December 2019 at the beginning of the project, only 20% of the patients in the clinic met the goal. In January, 35.7% of patients had phosphorus of >4.0, a nice and unexpected improvement. In February, the percentage was 30.8. March saw a decrease to 21.4% but rebounded to 38.8% in April. Three of the four months measured following the implementation of the project showed an increase in the percentage of those with albumin levels > 4.0. Possible reasons for the decrease in March were two new patients and the hospitalization of current patients.

The pre-test was administered to 15 patients, 14 hemodialysis and one peritoneal dialysis patient. The results were as follows: 100% - 1; 90% - 2; 80% - 1; 70% - 4; 60% - 1; < 50% - 4; did not finish exam - 2.

After the 3.5 months of education, the post-test was given. This was the exact same test as the pre-test. Eleven post-tests were given as three of the HD patients had either expired or discontinued dialysis. The peritoneal patient was not seen in the clinic and, therefore, did not take the exam. The results were as follows: 100% - 4; 90% - 4; 80% - 1; 70% - 1; < 50% - 1.

The post-test revealed that 8 of 11 tests scores were 90% or greater! This is a huge improvement in the pre-test scores and shows that knowledge of protein had increased greatly during the course of the Protein Initiative.

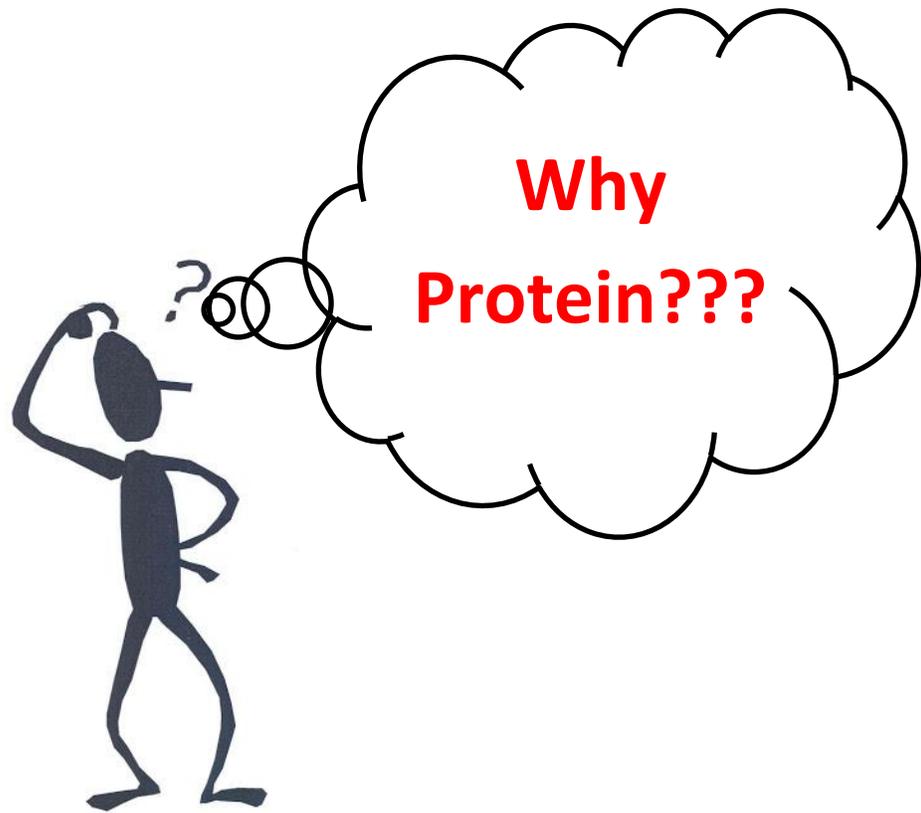
4. Impact on Patients:

The impact on the patients was huge! First, albumin levels showed an overall improvement during the course of the project. Improvement in albumin has been shown in many scientific studies to decrease the morbidity and mortality in the dialysis population. Second, the majority of patients showed a tremendous improvement in their knowledge of protein. This indicates that a good project can elicit change. The patients were engaged in the project from the very beginning by participating in monthly activities that held their interest and were recognized for their participation. Third, the patients had fun and looked forward to what new activities each month would bring. All expressed appreciation for the opportunity to be involved in the group project. A bulletin board and handout with pre and post-test results will be developed for the patients so they will know the results of the project.

5. Lessons Learned:

The lesson that was learned is that a good project is a lot of work! However, when success is achieved, every bit of the work is worth the effort.

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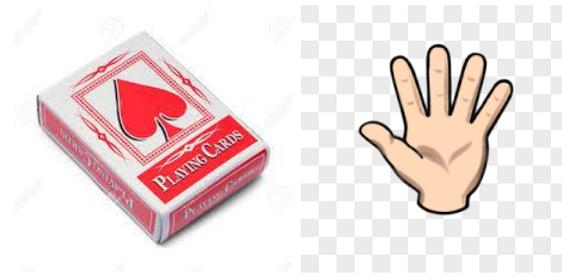


All people who receive dialysis treatments need to eat more protein than a person with healthy kidneys. Protein is important for many reasons. Among them are:

- **Growth and maintenance of body tissue**
- **Helps maintain a healthy immune system**
- **Will help with fluid balance**

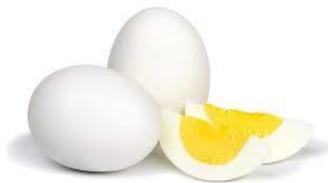
Protein is made in the body from something called “amino acids”. **Amino acids are called the building blocks of protein** and come from the food that we eat.

Protein in the diet is measured in **grams**. Each ounce of meat or an egg contains about 7 grams of protein. This means that a **3 ounce chicken breast will have about 21 grams of protein**. A 3-ounce portion of meat is about the size and thickness of a deck of cards or the palm of your hand.



When a person is on dialysis, protein needs are increased. The amount of protein a dialysis patient needs to eat each day is about **80 – 100 grams**.

Another excellent source of protein is an egg. Eggs are considered nature's "**perfect protein**" and contain around 7-8 grams of protein each.



Always remember, that **animal sources are your best sources of protein** in your diet. You may receive some protein from plant sources such as vegetables and grains, but they are may not be as complete as their meat counterparts!

Every month you will have blood work done at the dialysis clinic. Your protein level is part of the lab results that are reviewed with you by your dietitian each month. **The laboratory test that measures protein is called “albumin”**. Look for this on your monthly report card. The normal range for albumin is 4.0 or greater. It is difficult, but not impossible for dialysis patients to reach this number. This number may drop if you have been sick or in the hospital. Do not feel discouraged if your number is less than 4.0. As long as you are trying your best and eating good sources of protein, you will feel better.

The use of nutritional supplements will help you increase your daily protein intake. You may be offered a supplement in the dialysis clinic. Some examples are **Nepro, Zone Perfect Bars and Liquacel.**



It is important to use these supplements when they are offered to you. They will provide you with an additional 16 grams of protein. This is equal to the amount of protein found in two eggs.

Finally, you may discover that when you eat additional protein in your diet, your phosphorus may increase. **This is because many of the foods high in protein also contain phosphorus.** It is important to remember to take your phosphorus binders at ALL meals and snacks, especially when adding more protein to your diet.

Remember that protein is very important to good health. Your diet is a part of your medical program just as your medicines and your dialysis treatments are a part of your overall care. Following your healthcare team's advice, you will remain strong and healthy. By eating a diet high in good quality protein sources, you will feel better and have a higher quality of life.

If you have questions regarding any part of your treatment on dialysis, please don't hesitate to ask a member of your healthcare team. We are here to answer them for you.

Protein Initiative – DCI Bowling Green

Pre-Test

- 1. The main function(s) of protein is (are):**
 - a. Growth and maintenance of body tissues
 - b. Keeps the immune system healthy
 - c. Helps maintain fluid balance
 - d. All of the above

- 2. The building blocks of protein are called:**
 - a. Tinker Toys
 - b. Amino Acids
 - c. Legos
 - d. Protein Blocks

- 3. Which laboratory test measures protein in the blood?**
 - a. Hemoglobin
 - b. Phosphorus
 - c. Hemoglobin A1c
 - d. Albumin

- 4. The best sources of protein are found in fruits and vegetables.**
 - a. True
 - b. False

- 5. Protein and phosphorus are often found in the same foods.**
 - a. True
 - b. False

6. This food is often referred to as nature's "Perfect Protein".

- a. Potato
- b. Egg
- c. Chicken leg
- d. Peanut Butter

7. Protein in food is measured in grams.

- a. True
- b. False

8. How much protein is in a 3 ounce chicken breast?

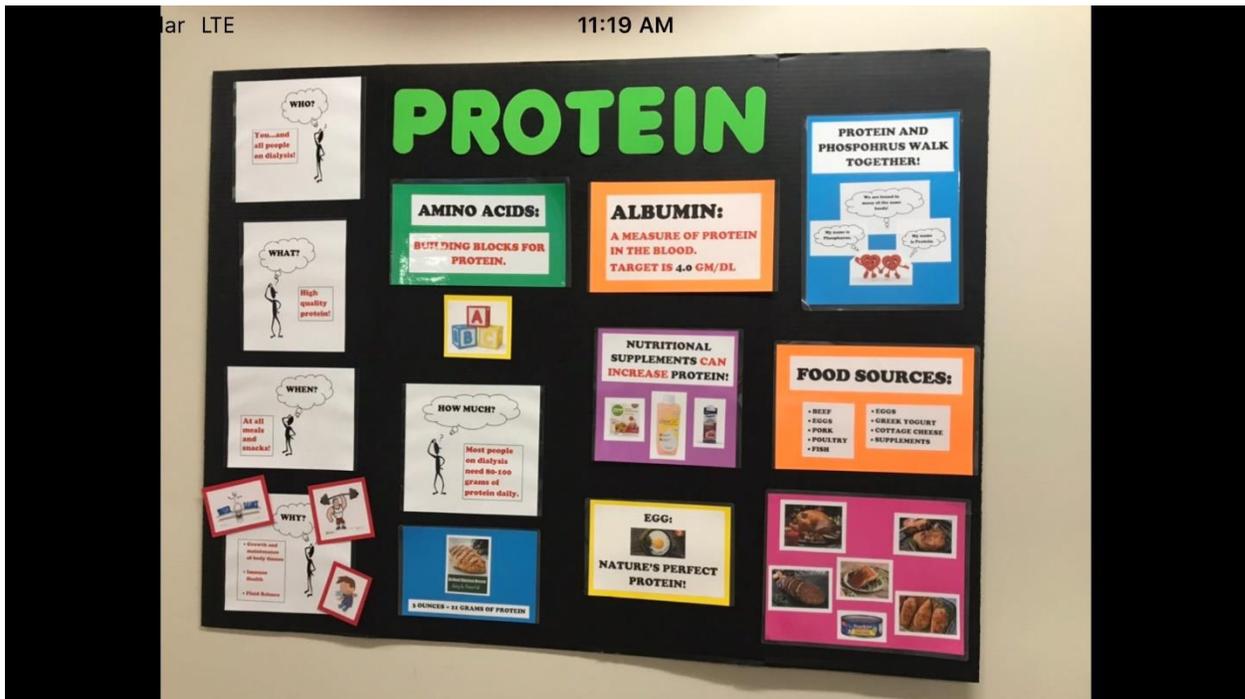
- a. 35 grams
- b. 7 grams
- c. 21 grams
- d. 3 grams

9. Nutritional supplements such as Zone Bars, Nepro and Liquacel can increase protein intake.

- a. True
- b. False

10. Most people on dialysis need about:

- a. 20 - 40 grams of protein
- b. 40 – 60 grams of protein
- c. 80 – 100 grams of protein
- d. 120 – 140 grams of protein



50 WAYS TO EAT AN EGG

HARD BOILED

1. Plain hard boiled
2. Easter egg
3. Deviled
4. In a lettuce salad
5. In a pea salad
6. In a tuna salad
7. Potato salad
8. Macaroni salad
9. In rice salad
10. Crumbled and use a garnish over a casserole

EGG SALAD

11. As plain egg salad
12. Garnished with onion, red pepper, or other vegetables
13. In a sliced bread sandwich or lettuce wrap
14. On an English muffin
15. In a flour tortilla wrap with vegetables
16. On a croissant
17. In pita bread, with vegetables optional
18. On a bun with lettuce optional

SCRAMBLED

19. Plain scrambled
20. Scrambled egg whites
21. In chicken fried rice dish
22. Egg fried rice
23. Omelet with vegetables
24. Omelet with sausage
25. Vary side dishes such as fried rice with omelet or rice and quinoa with omelet
26. On English muffin with sausage patty

IN COOKING

27. Plain quiche
28. Quiche with vegetables
29. Quiche with sausage
30. Quiche like casserole with sausage
31. French toast
32. Pancake
33. Frittata
34. Egg drop soup (use low sodium broth)
35. Bread dressing
36. Meatloaf
37. In a casserole

DESSERTS

38. Tapioca (use milk substitute)
39. Vanilla pudding
40. Butterscotch pudding
41. Chocolate pudding
42. Bread pudding
43. Mock pumpkin pie (use pureed carrots in place of pumpkin)
44. Custard pie
45. Custard
46. Fruit torte
47. Rice pudding
48. Old cake recipes that call for several eggs
49. Angel food cake

BEVERAGES

50. Homemade eggnog using milk substitute and liquid egg