

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



1. Q: Regarding vegetarian diets for patients with renal failure and diabetes, aren't beans high in both phosphorous and carbs? What protein sources do you recommend?

*The updated guidelines do not cover the management of vegetarian diets or recommend plant versus animal proteins. But newer literature shows a benefit of plant-based proteins in CKD, regardless of potassium and phosphorus content. There has not been an association of elevated potassium or phosphorus values with use of these foods in any stage of CKD.*

*A list of several of these resources can be found at [www.afternoonrounds.com](http://www.afternoonrounds.com) and the National Kidney Foundation ([www.kidney.org](http://www.kidney.org)) and provide plant-based nutrition recommendations and recipes on their site, as well as do several dialysis organizations. Use your best judgement working with patients to individualize recommendations based on their clinical circumstances and lifestyle.*

2. Q: Do plant-based proteins need to be limited at all? (other than reasonably to avoid weight gain) What about meat analogs?

*There is no conclusive evidence on the quantity of plant-based proteins and need for limitations. Use your best judgement working with patients to individualize recommendations based on their clinical circumstances and lifestyle. Some meat analogs are high in sodium and may not be suitable options for patients with CKD; others may be excellent options. Consider teaching label reading for sodium and/or added phosphates (as needed), as well as providing recommended alternatives to get patients started in the right direction.*

3. Q: Did protein guidelines for CKD in diabetes used to be 0.9 gm/KG BW? If so, why the change?

*The updated guidelines reflect the most current evidence based on the available literature. Detailed rationale for changes in recommendations are always provided in the text following the guidelines. The protein guidelines and rationale/background start on page S43 of the updated KDOQI nutrition guidelines.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



4. Q: For patients pursuing transplant but needs weight loss for candidacy, do you think protein intake  $\leq 0.6\text{g/kg}$  is challenging to achieve weight loss? Many patients pose this as a "concern" or complaint to me.

*Use your best judgement working with patients to individualize recommendations based on their clinical circumstances and lifestyle. Many patients with CKD (not on dialysis) are not able to achieve the low or very low protein recommendations overnight and may prefer a step-wise approach to change.*

5. Q: Patients with polycystic kidney disease- do they do better with plant-based proteins? And why?

*The updated guidelines do not cover the management of plant versus animal proteins in PKD, but they do specify, "Certain patient populations such as patients with polycystic kidney disease do not benefit from an LPD or VLPD. Individual dietary plans should be considered for these patients." Moderating protein intake in this population is recommended to prevent kidney damage. Hopefully more studies will examine the use of plant-based proteins in this population in the future.*

6. Q: Do you adjust protein intake for those continuing to lose large amounts of protein in their urine?

*The 2020 KDOQI nutrition guidelines do not cover the management of proteinuria except to recommend limiting sodium to 2300 mg daily and do mention, "A potential beneficial effect of reducing protein intake relies on the fact that it also reduced glomerular hyperfiltration and potentially protects them from hyperfiltration, accelerated hyalinosis, and proteinuria. On a nutritional point of view, reducing protein from animal sources and moving toward more vegetable protein sources also reduced acid production and metabolic acidosis."*

7. Q: Is albumin still being used as a nutrition marker in patients on dialysis even though there are many factors that affect albumin?

*Albumin is required to be monitored by Medicare in dialysis clinics as studies have strongly associated this with risk of hospitalizations and mortality. As we are aware that inflammation and infection also play major roles in protein status, you should assess for all of these possibilities and involve the care team when low albumin seems to be non-nutritionally related.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



8. Q: When you say double-boiled, do you mean boiled in water, but part of the way through cooking dump that water and refill the pot with fresh water to continue to boil?

*Yes, double-boiling can reduce potassium content somewhat more than boiling alone but is also a greater time and effort investment. So, you will have to determine what is best for your population. Here are the original references:*

*P.C. Bethke and S.H. Jansky. The Effects of Boiling and Leaching on the Content of Potassium and Other Minerals in Potatoes. Journal of Food Science. Vol. 75, Nr. 5, 2008.*

*S. Colman, RD, CSR, CDE. Lowering Potassium in Potatoes. [www.davita.com/diet-and-nutrition/diet-basics/a/2126](http://www.davita.com/diet-and-nutrition/diet-basics/a/2126). Accessed October 14, 2008.*

*J. Burrowes and N. J. Ramer. Changes in Potassium Content of Different Potato Varieties After Cooking. Journal of Renal Nutrition, Vol 18, No 6 (Nov), 2008: p 530-534.*

9. Q: You mentioned, in cases of hyperkalemia, fruits, vegetables, intact and whole grains, and plant-based proteins should not be discouraged. However, I noticed the visual that showed the high potassium fruits and vegetables. I'm a little confused? In addition to looking at bloodwork how do you decide if they can have these high potassium foods. How do decisions vary on this with hyperkalemia vs not?

*The main point of this slide is to show that with the change in the guidelines, there is no reason to be so restrictive with healthful foods in the "renal diet." Whole grains and plant-based proteins had been highly discouraged for decades previously; this no longer needs to be the case. Even when the previous guidelines recommended limiting potassium intake to specific amounts, there was still room for higher potassium fruits and vegetables in the diet a few times per week; there was never reason to avoid them completely. Bloodwork results will continue to be your primary method to monitor for hyperkalemia, but now you can first assess for medical causes of hyperkalemia (e.g., constipation, acidosis, uncontrolled blood sugars, etc.) before automatically restricting the diet.*

*Potassium does not need to be restricted without the occurrence of hyperkalemia.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



10. Q: Is there a good handout on medications that exacerbate hyperkalemia you would recommend for practitioners?

*Yes, the new National Kidney Diet professional guide has a very nice section on this.*

11. Q: Can you review if there is a difference in bioavailability for potassium additives, similar to higher bioavailability for phos-based additives? Or it is more about the total intake of potassium that is important to focus on?

*Yes, there is recent literature on the bioavailability of potassium that hypothesizes focusing on potassium additives and condensed potassium sources (e.g., fruit or vegetables juices, tomato paste, etc.), rather than natural sources that contain fiber. See here for more information:*

*St-Jules et al. "Nutrition Non-Equivalence: Does Restricting High-Potassium Plant Foods Help to Prevent Hyperkalemia in Hemodialysis Patients?" (2016)*

*Picard. "Potassium Additives and Bioavailability: Are We Missing Something in Hyperkalemia Management?" (2019)*

12. Q: You mentioned adjusting potassium bath to manage potassium, what is your position on use of potassium binders as a helpful tool along with or instead of dietary restriction?

*Potassium binders are another useful tool for patients struggling with persistent hyperkalemia. Insurance coverage and affordability remain limited in some areas so some patients may yet be on kayexalate.*

13. Q: So, you are still limiting higher K+ fruits/veg? I work in PEI (Canada) and a newer hand-out out of British Columbia states to enjoy fresh fruit/veg and focuses on more processed sources of K+ e.g., OJ, tomato juice/sauce/soup, processed meats, etc. It seemed to me like they were saying a fresh banana or tomato would be OK. What are your thoughts?

*Yes, in my practice we also focus more on the additives and processed sources. Yet many patients receive education from other providers and may still be restricting higher potassium sources on their own. I spend time working with each patient to reincorporate greater variety and improve their quality of life, as they are comfortable doing so.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



14. Q: When K<sup>+</sup> is elevated, what range would you recommend as a starting point (i.e., <50mmol)?

*Honestly, in my 20+ years of working in dialysis, I have never used an amount or a range. I simply encourage 5-a-day of fresh fruits and vegetables, only moderating juices, condensed sources, and avoiding potassium additives.*

15. Q: What is your best advice on a PD patient with high phosphorous and on a phosphate binder?

*Sadly, there is no new magic cure for hyperphosphatemia on any form of renal replacement therapy. Continue to follow the 2017 KDIGO mineral and bone disease guidelines to observe trends in calcium, phosphorus, and PTH concurrently (and vitamin D when available). Depending on patient preference of watching the diet more closely vs increasing medications, this can help guide you whether the binder dose should be increased. Unfortunately, PD does not do a great job of phosphate removal, so it is common for these patients to be on higher doses of phosphate binders. Only daily dialysis or nocturnal dialysis have been shown to more effectively remove phosphate. Phosphorus absorption blockers are currently under study and may one day be another tool for helping to manage hyperphosphatemia, but they would still likely need to be used in conjunction with phosphate binders.*

**Acute Care**

16. Q: For patients where bloodwork trends have demonstrated they may not require potassium or phosphate restrictions instead of dietitians liberalizing their diets to low sodium should the terminology low sodium, controlled protein be considered? (For instance, in acute care instead of a move to Low Sodium to these patients one would move to Low Sodium, Controlled Protein and specifying a gram amount: calculated based on their body weight 0.55 to 0.6, or 0.6 to 0.8 or 1.0 to 1.2. Also, is the term "controlled" protein an older term? Do you say "limited protein"/restricted protein? What term would you use on an acute care diet order - would you always label it by amount low (0.55 to 0.6) moderate? (0.6 to 0.8), or high protein (1.0 or 1.2 or higher)?

*There is no consistency in the terminology regarding controlled, limited or restricted protein but the 2020 KDOQI nutrition guidelines use the terms "low protein diet" and "very low protein diet".*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



17. How do you prioritize protein needs in cases of malnutrition/protein energy wasting in patients not on dialysis (i.e., patient with cancer, low BMI, but CKD4)? Higher protein needs for malnutrition or lower to spare kidney function?

*Unfortunately, the updated guidelines do not cover AKI, unstable or critical care patients. Continue to follow your existing guidelines and your best judgement. Here's a good resource for patients who are critically ill: ASPEN Guidelines for the Provision and Assessment of Nutrition Support Therapy in the Adult Critically Ill Patient: Society of Critical Care Medicine (SCCM) and American Society for Parenteral and Enteral Nutrition (A.S.P.E.N). J Parenteral and Enteral Nutri. 2016: 40: 183-184.*

18. Q: Is the National Kidney Diet educational material for patients available in Spanish?

*Yes!*

19. Q: Any guidelines on vitamin supplements for CKD stage 1-4?

*Yes, the 2020 KDOQI guidelines, found easily online, contain several recommendations for vitamin assessment and supplementation in all stages of CKD.*

20. Q: Do you still recommend a calculated meal plan for CKD?

*I am not aware of any previously published recommendations on calculated meal plans, but this is certainly an option for patients who find it beneficial or where needed for diabetes control.*

21. Q: For bariatric patients on dialysis, what are the recommendations for vitamins and minerals? If patients have a history of gastric bypass, what would be considered when making protein and nutrient needs?

*The needs for the bariatric or bariatric surgery population are not addressed within the new guidelines, but the answer to this question would depend on how far out from surgery the patient is. There is very little published on the nutrition needs for patients with CKD and bariatric surgery, but my work group has tried to address this issue and recently submitted an article to the Journal of Renal Nutrition: Nutritional Considerations for Patients With Renal Failure Undergoing Sleeve Gastrectomy – ScienceDirect.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



22. Q: Do you find that a lot of patients need oral supplements? Thinking of patients who are experiencing fatigue and don't feel like cooking.

*This is highly variable to each patient. But, yes, it is not uncommon for patients, especially those on dialysis, to need nutrition supplements. Roughly 30% of my patients on dialysis receive an oral nutrition supplement at each dialysis treatment and some also take their own at home. This can be for many reasons including weight loss, low albumin or inadequate protein intake, higher needs for wound healing, cirrhosis, etc.*

23. Q: In the past, I was taught that the patient should avoid starfruit due to the neurotoxin that it creates. Is this still the case?

*Yes, I am not aware that there is any new literature on this topic, so I believe that this still holds true.*

24. Q: Anything new for transplant patients?

*Yes, the 2020 KDOQI guidelines address transplant needs throughout the updates. For example, guideline 3.3.1 states, "In adults with CKD 1-5 not on dialysis or post transplantation, with or without dyslipidemia, we suggest that prescribing a Mediterranean Diet may improve lipid profiles."*

25. Q: Will there be any updates to renal guidelines in the acute care setting?

*This would be wonderful; I am not aware of any at this time.*

26. Q: With the emphasis on individual needs, can you offer recommendations on developing recipe/spreadsheet guidelines for long term care menus that align with the updated kidney diet guidelines, particularly when it comes to potassium and phosphorus.

*I have shared the updated guidelines with the Food Is Medicine Coalition (FIMC) and they may have further insights to share from their members. The AND Renal Practice Group and Dietetics in Health Care Communities practice group have partnered on some resources or articles in the past and may also be best.*

27. Q: Can encouraging more CHO and fat assist with sparing protein for improving albumin?

*This is not addressed in the new guidelines but can certainly be the case if energy intake is inadequate.*

**The National Kidney Diet: Putting the  
New Renal Nutrition Guidelines into  
Practice Webinar - Questions & Answers**  
Rachael Majorowicz, RDN, CSR, LD, FNKF  
September 14, 2023



28. Q: With the changes in the protein recommendations, it has brought up a question being that I work in an acute care setting in the hospital. Patients in the hospital are here for a multitude of reasons at times. So, if they have CKD or are on dialysis and they have let's say a stage 3 pressure ulcer or possibly HIV or have suffered a trauma in which the protein needs are higher what takes precedence?

Also, calorie needs and considering age how should one proceed? How do recommendations change if you have a client who had a kidney removed due to diagnosis of stage 3 CKD and stage 3 cancer?

*Unfortunately, the updated guidelines do not cover AKI, unstable or critical care issues. The best approach is to think about the most acute issue, which is the non-healing wound. Work with nephrology and attending physician to make sure CKD is management through renal replacement therapies and prescribe a higher protein intake (along with other critical aspects of nutrient metabolism) to assure wound healing.*

**Disclaimer:** The responses from the webinar presenter and Becky Dorner & Associates are for general information purposes only and are not intended to address individualized requirements. The webinar presenter and Becky Dorner & Associates have endeavored to keep the information accurate and refer the reader to resources that provide more detailed information, but do not guarantee the accuracy of the information, and accept no responsibility, and no liability, for any loss or damage which may arise from using or relying on the information.