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## Editorial

# Growing cases of chronic kidney disorders: A significant role of daily diet

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## 1. Introduction

Chronic kidney disease (CKD) disrupts the biochemical and physiological processes that maintain proper electrolytes and pH balance. Edema, hyperkalemia, chronic metabolic acidosis, hyperphosphatemia, bone loss, and hypertension pose severe risks to the lives of many people with CKD. Monitoring protein, phosphorus, potassium, sodium, calcium, and protein levels can mitigate these risks. Particular attention should be given to the food categories: red (processed) meat, poultry, fish, dairy, vegetables, legumes, nuts, and fruits. Several beverages are available, including coffee, tea, sugary drinks, and diet sodas unfavorable to this disease. Acid-load, high-sugar-load, and high-fat diets are considered detrimental to kidney health. Most studies' selection criteria included and discussed kidney function and provided data on eGFR.<sup>1-3</sup> Renal decline due to diseased kidneys and the slow deterioration of the glomeruli due to a high protein diet (HPDs) might lead to the progression of CKD. A study shows 43 normal human donor kidneys to investigate the impact of HPD on single-nephron GFR (SNGFR). The proteinuria of CKD patients who ate a low-protein diet decreased by 20-50 percent, which was revealed in a study. Consuming 25-35 kcal per kilogram of body weight per day is recommended for maintaining good energy and nitrogen balance. Most people's diets revolve around starchy foods like potatoes,

legumes like beans and nuts and seeds, and carb-rich foods like bread and whole-grain cereals that may not sometimes be kidney-friendly. Cooking oil is of utmost importance, where extra virgin olive oil (cold pressed) contains the monounsaturated fat necessary for optimal health.<sup>3</sup>

### 1.1. Dietitian's perspective

1. CKD patients often have other comorbidities that require food consumption guidelines that should be strictly adhering.
2. The dietitian's responsibility extends beyond offering the patient food guidance and recommendations.
3. Motivating patients to deviations that may improve their health and prevent comorbidities is essential for successful diet adoption and maintenance, especially when those changes may be unsettling for the patient.
4. Verifying that the patient has retained any knowledge gained from nutrition education is also crucial.
5. Educating the patient about appropriate substitutions is crucial to achieving and maintaining patient compliance and successful dietary management.

### 1.2. Patient's perspective

1. Choose and prepare foods with less salt and sodium
2. Buy fresh food, mainly perishable items, often.
3. Try lower-sodium staple foods and other ready-to-eat foods with less than 20% DV.

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4. Eat properly measured, selected, and suitable types of protein, and making small portions of that will positively help kidneys.
5. Talk to your dietitian about choosing the right combination of protein foods.

According to research, many different types of food can adversely affect human urinary health through interactions or reactions with certain medications. Dietary and pharmaceutical requirements must be met, but the conscientious patient must consult a nutritionist and a physician to determine what is best for them. Knowing how your diet and medication could interact is a necessity for staying healthy and avoiding issues.<sup>4</sup> A study demonstrated that older adults of both sexes in SEA countries could influence their TSH, creatinine, and bone mass with their diet. The patients above (95 in total) were observed for six months. Still, there were no statistically significant variations in test values between the sexes or between those who followed a vegetarian or vegan diet.<sup>5,6</sup>

### 1.3. Dietary considerations

Foods like bread, pasta, and rice-based milk (not fortified) that have been harvested are high in protein but low in phosphorus, which may be beneficial.<sup>7,8</sup> Lighter colors, like iced tea or lemonade, stand against corn, cereals (corn, bran, and oatmeal), meat, poultry, fish, dairy products, seeds, legumes, nuts, and nuts a variety of fruits and vegetables are also good sources of phosphorus. Patients with chronic kidney disease should avoid drinking iced teas, sodas, and fruit juices fortified with phosphorus.<sup>5,6</sup> Peaches, apples, cucumbers, beans, carrots prepared with refined flour, and plain egg rice are all good for CKD since they contain less potassium and are low in sodium. Bananas, orange juice, and other citrus fruit products tend to have higher potassium content. Foodstuffs: Wild and brown rice cereals

with bran, casein-free cereal options, mashed potatoes and tomatoes, whole wheat tofu, peanut flour pasta, and bread are primarily helpful for these patients.<sup>7,8</sup>

## 2. Conflict of Interest

None.

## References

1. Centers for disease control and prevention chronic kidney disease Basic is. ; 2022. Available from: <https://www.cdc.gov/kidneydisease/basics.html>.
2. Shen Y, Cai R, Sun J, Dong X, Huang R, Tian S, et al. Diabetes mellitus as a risk factor for incident chronic kidney disease and end-stage renal disease in women compared with men: a systematic review and meta-analysis. *Endocrine*. 2017;55(1):66–76.
3. Naber T, Purohit S. Chronic Kidney Disease: Role of Diet for a Reduction in the Severity of the Disease. *Nutrients*. 2021;13(9):3277. doi:10.3390/nu13093277.
4. Banerjee S. Interactions between common foods and drugs - a narrative review. *Asian J Pharm Res*. 2020;10(3):188–94. <https://www.niddk.nih.gov/health-information/kidney-disease/chronic-kidney-disease-ckd/eating-nutrition>. Accessed on 28th October 2022.
5. Banerjee S. Vitamin C in the daily diet and modern medicine. *J Prev Med HolistHeal*. 2021;7(2):72–3. doi:10.1093/jn/130.1.63.4.9..
7. What's good for your kidneys; 2022. Available from: <https://healthjade.net/whats-good-for-your-kidneys/>.
8. Van Westing A, Küpers LK, Geleijnse JM. Diet and Kidney Function: A Literature Review. *Curr Hypertens Rep*. 2020;22(2):14. doi:10.1007/s11906-020-1020-1.

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