Nutrition and Chronic Renal Failure
A Guide for Patients/Families

Department of Nutrition and Food Services

The Aga Khan University Hospital, Karachi

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What is Chronic Renal Failure?

Chronic kidney failure occurs when disease or disorder damages the kidney so that they fail to remove water and waste from the body.

How Should The Diet be Modified in Chronic Renal Failure?

When you have chronic kidney disease, diet is an important part of your treatment. As a renal patient, you may be dependent on dialysis to remove water and waste from your body. Proper diet can delay the progression of chronic renal failure so that the need of dialysis is delayed. For patient on dialysis a proper diet can reduce that the need of dialysis is delayed. For patient on dialysis a proper diet can reduce the amount of water and waste products produced and stored in the body and thus can reduce the number of times per week the dialysis required.

Nutritional Recommendations for Those with Chronic Renal Failure

Getting enough calories is important for your overall health and well-being. But it is important to focus on these nutrients in your diet...

- Protein
- Sodium
- Phosphorus
- Potassium
- Fluids
- Vitamins and Minerals

The dietary modifications you require will differ if you have diabetes, high blood pressure or any other disease. Talk to your dietitian to give you appropriate guidelines.

What is Protein and how much Protein Should one Take?

Your body needs the right amount of protein for building muscles, repairing tissues, fighting infection. Protein comes from two sources animals and plants:

**Animal Sources:** Egg, fish, chicken, red meat, milk and milk products and cheese.

**Plant Sources:** Dals, beans and cereals such as wheat and rice.
Your doctor may recommend that you follow a diet that has controlled amount of protein. The may help decrease the amount of waste in your blood and may delay further damage to your kidneys.

- People on dialysis are encouraged to eat mainly animal protein foods.
- This includes meat, poultry, fish, cheese and eggs;
- In general the protein from egg and milk is better tolerated than protein from other sources.
- The amount of protein you can eat depends on your kidney function which can be determined by simple test.
- In general you should consume no more than the equivalent of 1 glass milk, 1 egg, 2 oz. meat (1 match box size portion) and 1/2 cup of cooked mixed dals.

What is Sodium and how do I Limit The Intake of Sodium?

Sodium is a mineral found naturally in foods. It is found in large amount in table salt. Kidney disease, high blood pressure and sodium are often related. Therefore, you may need to limit the amount of salt in your food.

High sodium foods are:

- Salty seasoning like garlic or onion salt, ketchup or all type of sause, chinese salt and chicken cube;
- Canned food and frozen foods;
- Processed meat like hunter beef, sausage & nuggets;
- Salted snacks like chips, nimco, crackers;
- Canned and dehydrated soups.
- Achar and pickles

Do not use salt substitute without checking with your health care provider. Herbs, spices and fruit vinegar can be used instead of salt to make your food tasty.
What is Potassium?

Potassium is an important mineral in the blood that helps your muscles and heart work properly. Too much or too little potassium in the blood can be dangerous.

Potassium is found in all fresh foods such as fruits and vegetables and unrefined foods such as dals and beans.

Following Foods are Low in Potassium:

- **Vegetables**: Beans, pepper green, cabbage cooked, carrot raw, onion, cauliflower, corn, bringal, turnips;

- **Fruits**: Apple, plum, grapefruit, papaya, peach, water melon, raisin, strawberry, cherry.

Following Foods are High in Potassium:

- **Vegetables**: Spinach, potatoes, pumpkins, fresh tomatoes, tomato paste;

- **Fruits**: Banana, melon, dates, dry fruits, mango, oranges, pear, apricot.
**What is Phosphorus?**

Phosphorus is a mineral found in bones with calcium, it is needed for strong bone. Normal kidney help remove extra phosphorus from the body when you have diseased kidney.

Your kidney may not be able to remove enough phosphorus from your blood. A high phosphorus level may cause you to itch, lose calcium from your bones. Your bones can become weak and may be broken easily.

**Phosphorous is Found in Large Amounts in The Following:**

- Dairy products such as milk, cheese, pudding, yogurt, ice-cream;
- Dried beans and peas such as kidney beans;
- Nuts and peanut butter;
- Beverages such as cocoa and carbonated drinks.

*Limit your dairy product such as milky, yogurt and ice-cream.*

Consume all these foods in consultation with a Dietitian.

**Why Fluids are Important?**

As a renal patient, you may depend on dialysis to remove water and waste from your body. If your kidney disease gets worse, your doctor will let you know when you need to limit fluids and what quantity of fluid is right for you. Fluid or liquid could be water, tea, beverages or things which are solids as ice-cubes, ice-cream or jelly.
Why is Calorie Intake Important for Renal Failure Patient?

Calories provide energy to your body. A pattern suitable for your requirements can be designed by Dietitian/Nutritionist, but generally patient on dialysis need more calories, which can be increased by...

- Adding butter, oils, margarines in limited quantity for cooking, and could be used as spreads;
- Best oils for use are olive oil canola, and sunflower oil.
- If you are not diabetic, you can take limited intake of hard candies, sugar, honey, jam and jelly.

Can I use Supplements?

People with chronic renal failure often used supplementation of specific nutrients. Your doctors is the best judge of which supplementation you should take. Do not take supplements without doctor's prescription.

Important Note:

Although patient with renal failure diet has some general basic principles apply to all patients, the specifics of diet for any individual renal diet with depend on their overall health and the type of treatment being given. You will have to explore, along with your Doctor, Dietitian/Nutritionist and other health professionals, what will work best for you.

Outpatient Nutrition Care Clinics

Nazarall Walji Building (NW 2)
Phone: (021) 3486-5789-90
Monday to Thursday
Timings: Morning 9:00am - 11:00am

Consulting Clinic (CC 4)
Phone: (021) 3486-1034
Friday
Timings: Afternoon 2:00pm - 4:00pm

Gastroenterology Clinic
(JHS Building)
Phone: (021) 3486-1055 / 3486-6308
Thursday
Timing: Morning 9:00am - 12:00am

Sports & Rehabilitation Clinic
(Sports Centre)
Phone: (021) 3486-1662
Tuesday
Timing: Morning 9:00am - 11:00am