

## CHRONIC RENAL FAILURE

Chronic renal failure is a progressive or slow continuous destruction of the kidney cells and so kidney is not able to perform its normal function of filtering waste from the blood; as a result the waste remains in the blood.

### CAUSES

- 1) Pre-existing renal diseases e.g. glomerular disease.
- 2) Hypertension i.e. high blood pressure.
- 3) Diabetes.
- 4) Hereditary renal disorders. E.g. polycystic kidney.
- 5) Metabolic disorders e.g. gout.
- 6) Certain drugs and pain killers.

### DIETARY MANAGEMENT

Dietary changes are made to correct the fluid and electrolyte imbalance and to maintain proper nutritional status so as to minimize protein catabolism and uraemia. But these dietary changes should be done under guidance of a professional dietician.

### AVOID

- 1) Avoid potassium rich food, as in renal failure potassium excretion is decreased, hence serum potassium level are high which can have deleterious effects on heart.
- 2) Foods rich in potassium and to be avoided are: restrict potassium intake to 1,000 mg per day.
- 3) Minimize or avoid protein - (0.5-0.6 gm per kg body weight) if you are not on dialysis and blood urea and nitrogen is increasing.
- 4) Avoid high sodium diet - Restrict Sodium intake to 500-1,000 mg per day.
- 5) Avoid phosphorus in diet, in renal disease phosphorus levels increase, which Causes blood calcium levels to decrease and can lead to bone loss.

### CONSUME

- 1) Fluid intake is regulated on basis of urinary output, other water loss from vomiting or diarrhea. Total fluid intake should not exceed - 500 ml + previous day's urine output + total water loss from vomiting or diarrhoea or any other cause.
- 2) You should consume a minimum of 600-1,000 kcal.
- 3) Generally for adults 35-50 kilocalories per kg body weight, for children 80-110 kcal / kg and for infants 100-120 kcal / kg should be consumed to maintain positive nitrogen balance.
- 4) Have high calorie diet. Increase intakes of fats and carbohydrates.
- 5) Reduce intake of proteins - (40 gm per day, if on haemodialysis protein intake can be increased to 1 gm per kg body weight per day and patients on peritoneal dialysis, loses more protein so daily protein requirement is 1.0-1.5 gm per kg body weight).
- 6) The food should be high in calories and low in protein.
- 7) High protein sources like fish, chicken, meat and pulses should be taken in smaller quantities.
- 8) Avoid canned, baked, processed and preserved foods.
- 9) Salted cheese, butter and nuts should be avoided
- 10) Foods high in protein should be taken in little quantities -Canned, preserved, baked and processed foods should be avoided.
- 11) Avoid salted nuts, cheese, butter and other salted food items.
- 12) Consume at least 100 gm of carbohydrate per day, it minimizes tissue protein breakdown.
- 13) If on nasogastric tube feeding administer 700 ml of 15 % glucose.
- 14) Sodium intake is based on measurements of sodium ions in serum and urine. If are not on dialysis you should restrict sodium intake.
- 15) Restrict Sodium intake to 500-1,000 mg per day.
- 16) If you are on dialysis sodium can be consumed in accordance with the serum levels of sodium ion.
- 17) If on haemodialysis you can consume 1.5 to 2.0 gm of sodium per day and if you are on peritoneal dialysis you can have 2 to 3 gm of sodium per day.
- 18) For children sodium intake should not exceed 50mg per kg per day.
- 19) During kidney disease body's need for certain vitamins and minerals changes. Normally in healthy condition we get adequate amount of vitamins and minerals form our regular diet, but as in kidney

disease diet limits certain food groups, hence one needs to take certain vitamin and mineral supplements. Take these supplements under the guidance of your physician.

- 20) Vitamin C supplements, helps to increase immunity and combat the infection.
- 21) Vitamin B complex, certain B vitamins like B6, B12 and folic acid along with iron and EPO (erythropoietin, given in renal failure to avoid anaemia) and iron prevents anaemia. Other B vitamins like - thiamine, riboflavin, pantothenic acid and niacin helps to convert food into energy.
- 22) Iron supplements can be taken, but consult your physician.
- 23) You can also take calcium supplements; it binds the phosphorus from food and serves to provide extra calcium that your body needs. Along with calcium you can take vitamin D supplements, helps to keep bones healthy.
- 24) Consume 2 table spoon of fresh flax seed oil, reduces / slows the process of further renal damage.

### **CONSULT PHYSICIAN**

- 1) Consult physician immediately if any of the above sign and symptoms appear, as timely treatment and management can prevent any further damage of the kidney.
- 2) Diet and water intake should be under strict medical guidance.

**NOTE : PLEASE CONTACT WITH YOUR DOCTOR FOR EXACT DIET FOR THE HEALTH PRBLEMS YOU HAVE.THIS A SAMPLE DIET CHART TO GET THE IDEA OF YOUR DAILY ROUTINE FOOD INTAKE TO MAKE YOUR LIFE HEALTHY .**