

Introduction

Dear friends:

With generations of development and prosperous social economy, people's life style and dietary habit have changed significantly which results in the prevalence of chronic diseases such as high blood pressure, kidney disease, diabetes, and hyperuricemia. The improvement of medicine is not merely for pursuing the extension of life but also for a better quality of life and living; therefore, preventive medicine has become the highlight of the health medicine nowadays. Kidney disease is not only an idiopathic kidney disease but also a complication of diabetes and high blood pressure. Correct prevention countermeasures can avoid the incidents of kidney disease. Since kidney disease lacks of distinct symptoms in the early stage, many friends are unaware of their disease or take secret recipes or prescriptions from hearsays and induce the deterioration of the disease. Kidney disease can in fact be well controlled if taking correct preventive measures or being diagnosed and treated correctly at an early stage. How much do you know about kidney functions? Are you aware of the tests on kidney functions? How to find out if you have kidney disease? How to prevent kidney disease on a regular basis?

To enhance the public's awareness of new information, we have once again invited expert scholars to complete the "Kidney care- How to care for your kidney" in the hope that the public will learn the tips of kidney care and the incidents of kidney disease will be reduced. Care for your "kidney" on a regular basis will guarantee a healthy life.

Bureau of Health Promotion, Department of Health,
R.O.C.(Taiwan)

Best regards,

Mei-Ling Hsiao

Director General

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Getting To Know the functions of kidney

1. Elimination of waste products from the body

Our blood contains waste products metabolized from what we eat, or that are produced by muscle activity and metabolism. These waste products are filtered by the kidney and eliminated through the urine.

2. Regulation of body fluids

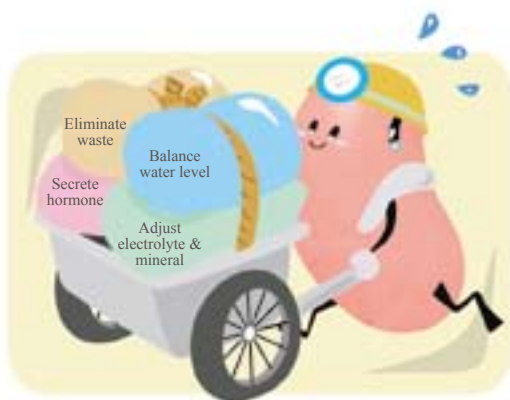
Our kidneys can filter extra fluid from the body, and eliminate it through the urine. Two kidneys can produce 1000 to 2000cc of urine daily.

3. Regulation of acid-base homeostasis, balance of fluids and electrolytes

Maintain a balanced number of electrolytes, such as calcium, phosphate, sodium, potassium and regulate the level of acidity and alkalinity.

4. Hormone secretion

- 1 Renin – related to control of blood pressure.
- 2 Erythropoietin – stimulates the production of red blood cells.
- 3 Activated Vitamin D – maintains bone density and health.

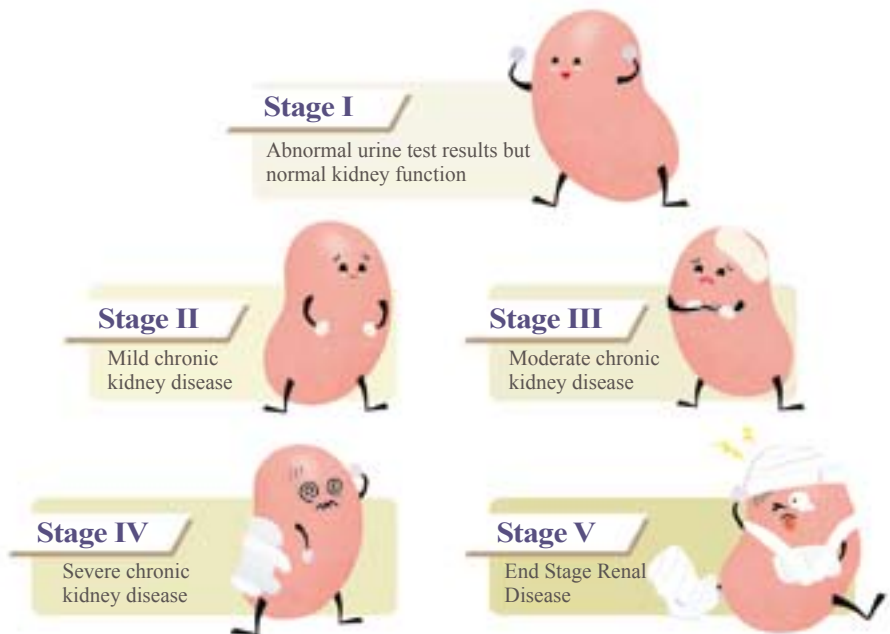


2. What are the Symptoms of a kidney disease?

It is difficult to detect the early stages of kidney disease, due to the absence of apparent symptoms. Kidney disease may manifest itself as: hematuria, proteinuria, polyuria, oliguria and edema.

3. What is Chronic Kidney Disease?

After the kidney has been injured for months or years, the function of a kidney will be impaired and irreversible; this is referred to as Chronic Kidney Disease. Chronic Kidney Disease includes five stages and symptoms develop gradually stage by stage.



4.

The Five Stages of Chronic Kidney Disease

Stages I and II

The function of the kidney:

The kidney functions at more than 60% of the normal status (normal value 90 ~ 100%). During these stages the healthy part of the kidney can fulfill the role of the damaged parts, which results in a compensatory higher renal function

Symptoms:

Usually, there are no apparent symptoms in stages I and II ; however, patients exhibit some irregular manifestation of urination , such as noturia, polyuria, hematuria and proteinuria. Generally, undergoing regular check-ups and treatment might be ignored by patients due to the absence of distinct symptoms.

Treatment and Special remarks

The initial stage of kidney disease can be diagnosed correctly by urine test, blood tests or renal biopsy. If proper treatment can be administered at the early stage, the disease can be kept under control, and the kidney function may be reversible.



① Medication

Steroids is one of the essential types of medication for kidney disease, and it does not impair the kidney function. Patients have to avoid the unsupervised stopping or modifying of prescribed medication. Nevertheless, the misconception is prevalent that steroids cause damage to kidneys so that people

are reluctant to take the prescribed steroids. In this case, such failure will aggravate the kidney function.

② Control of Blood Sugar

High level of blood sugar will lead to microvascular complications and macroangiopathy, which affects the blood flow in the kidney and decreases its ability to function. Diabetic patients should control their blood Sugar to an optimal level of less than 110mg/dl before a meal, 140mg/dl after a meal, and HbA1C 7.0%.

③ Control of Blood Pressure

Fluctuation in blood pressure aggravates damage to kidney vessels. Therefore, you must take your antihypertensive medicine regularly to control your blood pressure. You must not change the dosage without consulting your doctor. If any problems ensue, be sure to consult your doctor immediately. The optimal level of blood pressure should be less than 130 mmHg systolic, and 80mmHg diastolic.

④ Exercise and Lifestyle modification

Do not stay up late, and avoid alcohol and smoking. You should exercise at least three times a week, 30 minutes each time.



Stages III and IV

The Function of the Kidney:

The kidney function at these stages is severely impaired, limited to only 15~59% of its normal level. Symptoms that may appear at these stages are :

The Symptoms of the Kidney:

① Fatigue, weakness, dizziness, and impaired sexual function

The kidney is incapable of producing enough erythropoietin (EPO) hormone which results in anemia. These symptoms stem from anemia.

② High blood pressure, hyperlipidemia, vascular sclerosis

Severe proteinuria leads to hyperlipidemia; damage to kidney tissue and vessels cause high blood pressure and vascular sclerosis.

③ Edema and heart failure

Fluid retention can lead to limbs edema and heart failure; accompanying symptoms include weight gain and shortness of breath while walking.

④ Bone pain and itchy skin

Since the kidney can no longer eliminate electrolytes from the body through the urine, an imbalance of calcium and phosphates will develop in the body, which leads to skeletal disorders (renal osteodystrophy) and itchy skin.

Itchy Skin



Vascular Sclerosis



Heart Failure



Lower Limbs Edema



Treatment and Special remarks

① Treatment for Anemia

Your doctor treats your anemia with the use of recombinant human erythropoietin and iron. You should not take any nourishing tonics for the blood without consulting your doctor, since they might place an excessive burden on your kidneys.

② Healthy lifestyle

Routine exercise, diet modification, weight control and appropriate medication will reduce the risk of cardiovascular disease.

③ The Prevention of Renal Osteodystrophy (skeletal disorders)

It is necessary to maintain a low phosphate diet. Take phosphate binders during meals to reduce the level of phosphates, and a take calcium supplement as prescribed by your doctor.



④ The Prevention of Edema

Don't consume excessive amount of water, salt or monosodium glutamate. Your doctor can prescribe a diuretics to decrease water retention.

⑤ Mental Adjustments

Acceptance: A damaged kidney cannot regain its normal functioning level; therefore, it is imperative that you do not take inappropriate medication from non-professionals or folk prescriptions so as to prevent further damage of your kidneys.

A Positive Attitude Reduces Fear and Anxiety: Seek out the support of family and friends, and actively get involved in the procedures of the treatment. Join a patients' club to share the experience of caring for chronic kidney disease.

Learn everything you can about Self-Care: Discuss with your doctor regarding the replacement therapy for End Stage Renal Disease for future reference, including, dialysis and kidney transplant.

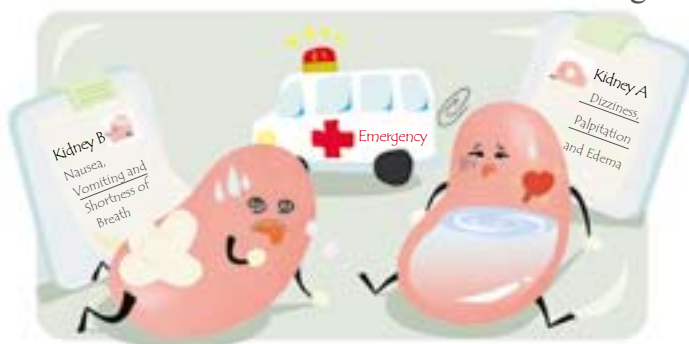
Stage V (End Stage Renal Disease)

The function of the kidney:

The kidney function at this stage is only 15% of its normal level, or even less. The kidney is no longer able to eliminate metabolic substances efficiently from your body, nor can it balance a normal level of acid and base, consequently, the symptoms of uremia develop gradually as the kidney function deteriorates day by day.

Symptoms of Uremia:

Loss of appetite, nausea and vomiting lead to malnutrition; a high level of potassium in the blood causes arrhythmia; water retention results in edema, pericardial effusion, pleural effusion, and shortness of breath; anemia makes you look pale, induces fatigue, dizziness and shortness of breath while walking.



Treatment and Special remarks

① Treatment for anemia and heart failure

Follow up with your doctor's prescription with the use of recombinant human erythropoietin to ameliorate the symptoms of anemia and heart failure.

② Reduce pericardial effusion, pleural effusion and shortness of breath

You need to take diuretics under your doctor's supervision to reduce cardiopulmonary effusion and relieve shortness of breath. If excess water still cannot be effectively eliminated, dialysis is needed.

③ Treatment for loss of appetite and nausea

Medication can increase appetite; meanwhile, nausea and vomiting caused by an imbalance of electrolytes can only be relieved by dialysis.

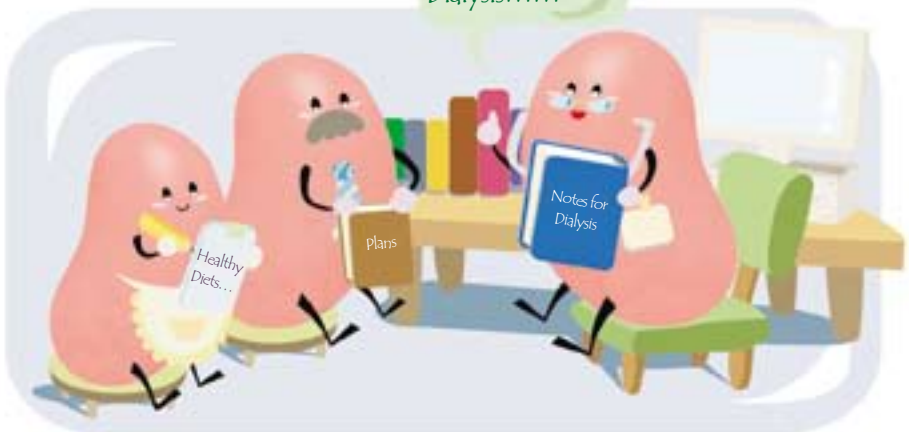
④ Treatment for a high level of potassium in the blood

Excessive potassium in the blood will induce arrhythmia which can be fatal. Proper medication and a proper diet will prevent high levels of potassium in the blood.

⑤ Selection and Preparation for Dialysis Treatment

It is necessary for you to select and prepare for dialysis treatment in advance. These steps include building an arteriovenous anastomosis for hemodialysis, and making arrangement and preparation for peritoneum dialysis or kidney transplantation. In this way, the pain and suffering from intubation during emergent dialysis can be avoided.

Hemodialysis....
Peritoneum
Dialysis.....



Replacement therapies for End Stage Renal Disease

1. When Do You Need Dialysis Treatment?

You will be recommend to begin dialysis treatment when these symptoms occur: nausea, vomiting, loss of appetite, itchy skin, shortness of breath, limbs edema, cardiopulmonary effusion, bad breath, or when Blood Urea Nitrogen (BUN) is higher than 80-100mg/dL, blood creatinine above 8-10mg/dL.

2. Types of Dialysis

① Hemodialysis:

■ Method:

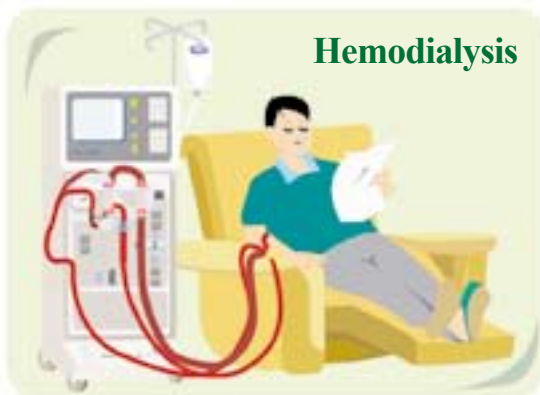
Also known as “Kidney Cleaning”, this method utilizes a hemodialysis machine and bio-artificial kidney dialysis machine, in which the patient’s blood flows through the hemodialysis machine to filter waste and excess water from the blood.

■ Treatment:

Patients need to go to a dialysis center for treatment three times a week, and four to five hours each time.

■ Dialysis Access:

Before starting the hemodialysis, a vascular access must be made in advance. While going on the hemodialysis, vascular access means to provide a required access that can reach vessels for processing dialysis treatment.



② Peritoneum Dialysis:

■ Method:

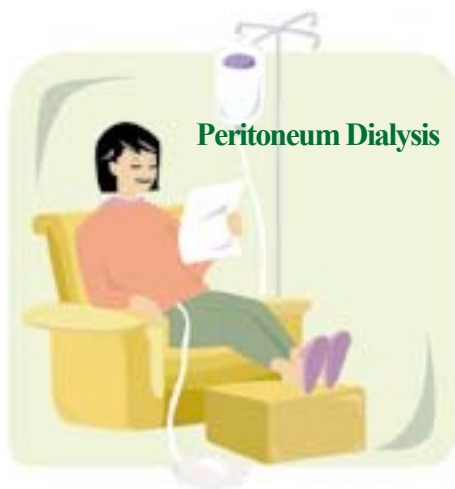
Also known as “Intestinal Cleaning”, this method makes use of the natural human body in which the peritoneum acts as a semi-permeable membrane to eliminate excess water and metabolic waste from the body while infusing a peritoneal dialysis solution (dialysate) into the intestines.

■ Treatment:

Patients can do it at home or in a suitably designated place. They need to have peritoneal dialysis four times a day. Whenever you undergo your peritoneal dialysis, first, drain the old dialysate with waste products out of the intestines; next, infuse a fresh dialysate. It takes about twenty to thirty minutes for each solution to be added or removed. A fresh dialysate will stay in the intestines for four to six hours to get the waste out; and you need to change the dialysate. Thus, you do not need to go to a dialysis center for peritoneal dialysis.

■ Dialysis Access:

One week before undergoing Peritoneum Dialysis treatment for the first time, you must have surgery to implant a permanent catheter for peritoneal dialysis into your intestine.



3.Kidney Transplantation

■ Method:

This surgical operation transplants a healthy kidney into a patient's body. The transplanted kidney replaces the failed one in order to maintain normal kidney function.

■ Obtaining a kidney for transplantation:

- ① Kidneys can be donated by blood relatives (direct, collateral and affinity).
 - ② They can be donated from a patient diagnosed as brain dead, and with the consent of the patient's family.
- The donor must take a blood test to ensure donor's kidney is normal.
 - The tissues of the donee and donor must match with each other, in compliance with certain requirements, before a transplant can take place.

➡ Kidney Transplantation



6. Laboratory tests for Kidney Disease

1. Urinalysis

■ Random urine test:

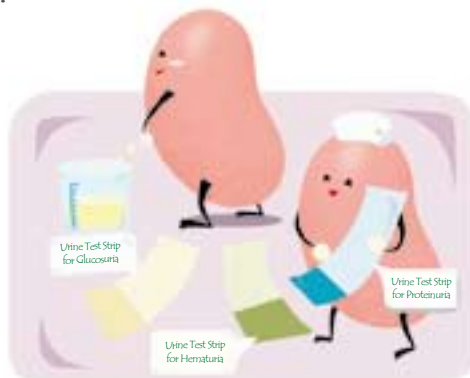
It serves to examine protein (proteinuria), erythrocyte (hematuria), and leukocyte levels.

■ Twenty-four hour urine sample:

You collect all the urine produced in the course of a twenty-four hour period, in order to measure the total urine protein level and to calculate the glomerular filtration rate. These results help to evaluate the effectiveness of the kidney function.

2. Blood Test

Creatinine is one of the waste products generated from muscle. A normal kidney can eliminate it from the blood, and 0.7 ~ 1.2mg/dL is the normal range. However, when the kidney is damaged, creatinine begins to accumulate in the bloodstream. The creatinine value in serum can be converted into a residual renal function.



3. Renal ultrasonography

An ultrasound Scan can detect whether the kidney is excessively large or atrophic, it could also tell the presence of a urolithiasis or tumor; furthermore, it can determine whether the structure of the kidney and urinary tract is normal or not. Chronic kidney disease results in atrophic kidneys; yet the kidney size is usually the same for the patients with diabetes, polycystic kidney disease and amyloidosis.

4. Renal biopsy

The pathology report of the kidney helps doctors to understand the cause of kidney disease, and how severe the kidney disease is, and the doctors prescribe the medication accordingly.

5. Intravenous Pyelogram (IVP) or Computerized Tomography (CT)

Doctors prescribe IVP or CT based on the circumstances.



7. Daily Care for Renal Patients

1. Take medications and Have Regular Follow-Up

A regular follow-up examination of your kidney function ensures that you receive proper treatment in a timely manner. During regular follow-up you can also discuss with your doctor about treatment plans and self-care skills. Your doctor will remind you never stop taking the medication or to increase dosage without supervision; never believe in the advertisements about unverified herbal medicines or over-the-counter drugs (OTC). You should avoid taking any unprescribed painkillers as well.

2. Control Blood Pressure to be under 130/80mmHg

■ A Healthy Life Style:

Avoid staying up late, consuming alcohol, and smoking. You should exercise at least three times a week, 30 minutes each time.

■ Medication:

Fluctuation of blood pressure aggravates damage to kidney vessels. Therefore, you should take your medication regularly to control your blood pressure. Do not change the dosage on your own. Consult your doctor should any problems arise.

■ A Healthy Diet:

Avoid eating salty and oily foods.

3. Control Blood Sugar within a Safe Range; This is very important for patients with diabetes

Self-monitor of blood sugar:

Follow your doctor's instruction to check your blood sugar before and after meals, and keep records for treatment reference. You can control your blood sugar by regular exercise, healthy diet, and medication (antidiabetic drugs or insulin); consult your doctor and dietician is helpful as well.

4. Prevention of high lipid levels in the blood

Controlling body weight by means of a healthy diet and regular exercise can decrease your blood cholesterol and triglycerides.

5. Quit Smoking

If you don't smoke, do not start; if you do, please consult your doctor about how to quit smoking now.



6. Diet

You should consult a dietician to plan a suitable diet that will slow down the deterioration of the kidney function.

7. Prevention of Infection

Urinary tract and respiratory tract infections affect the function of the kidneys.

① **Prevention of urinary tract infections:** Use toilet with a proper manner; do not keep urine in the urinary bladder for a long time; take showers instead of using bath tub.

② **Prevention of respiratory tract infections:** Be aware of the weather change, and put on suitable clothing when the temperature drops. Avoid visiting public places in the flu season; please get a flu shot in October or November every year to reduce the chance of contracting influenza.

8. Family Support and a Positive Attitude

Family support and caring is very helpful in dealing with any disease.



8. Meals for Renal Patients

1. Low-Protein Diets


Patients with chronic kidney disease should not eat too much protein in order to avoid aggravating the damage to their kidneys. They should be aware of protein-rich foods such as fish, meat, eggs, milk, and beans; considering the specific stage of the disease, it is suggested that patients should consume 75 to 150 grams of meat (37.5 grams of meat is about the width of three fingers), and they should follow their dietitian's instructions.

However, reducing protein consumption might easily cause deficiencies in caloric intake that might worsen the disease. Therefore, in order to ensure sufficient caloric intake, patients should eat the following low-protein foods:

- ① **Low Nitrogen Amylum:** pearl sago, sago, green bean noodles, sheet jelly, lotus root starch, potato starch, corn starch, tapioca, agar jelly, et al.
- ② **Extracted Sugar:** granulated sugar, fructose, crystal sugar, honey, candy, et al.
- ③ **Sugar Polymer:** malt sugar
- ④ **Fats:** Vegetable oils, such as salad oil and olive oil.


2. Low-Phosphate Diets

High-Phosphate Foods	
✗ Avoid Completely	Limited Amounts
Viscera: pork livers and hearts, chicken gizzards Dairy products: yogurt, fermented milk, yogurt milk, cheese Whole grain: multi-grain rice, lotus seeds, pearl barley, brown rice, whole wheat, wheat germ, chestnuts, red beans, and green beans Dried beans: black soy beans and broad beans Nuts: peanuts, melon seeds, almond nuts, pistachio nuts, cashew nuts, walnuts and sesame	Fresh milk Milk powder

High-Phosphate Foods	
 Avoid Completely	Limited Amounts
Others: “Jian-Su” candy (Taiwan Sugar Corporation), yeast powder, cola, soda pop, egg yolk, cocoa, prawns, rissole and meat balls, root beer, fried pork fiber, lecithin, Yakult and ice cream	Fresh milk Milk powder

When dining out, how do you avoid high-phosphate foods?


- ① Choose fresh meat.
- ② Do not eat meat with gravy, and have smaller portions of pork rib stew.
- ③ Low - potassium diet

High-Phosphate Foods	
 Prohibited	Limited Amounts
Star fruit Low-Sodium salt Formula salt Saltless soy bean sauce	Fruits: honey-dew melons, papaya, kiwi, tomatoes, peaches, strawberries, guava, custard apples, bananas, oranges, typhoon durian. Vegetables: laver, tree mushroom, spinach, amaranth, Gynura bicolor Others: chocolate, plum juice, tomato sauce, dried fruits, healing soups Drinks: coffee, tea, essence of chicken, and ginseng, sports drinks

Tips for low-potassium cooking

- ① Boil vegetables briefly in hot water, stir fry next or mix with oil.
- ② Avoid eating vegetable soup, vegetable and fruit juices, as well as raw vegetables.
- ③ Do not consume condensed juices or eat rice mixed with gravy.
- ④ Boiled water is always the best choice.

4. Low-Salt Diets

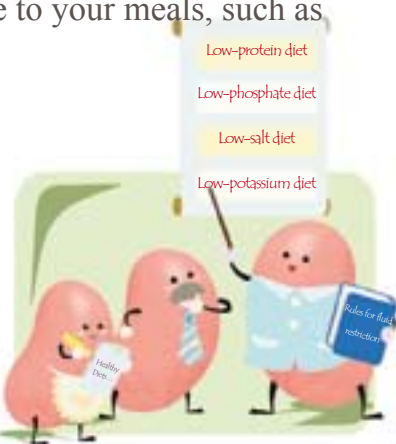
High-Phosphate Foods	
 Prohibited (Avoid Completely)	Limited Amounts
<p>Pickled, smoked, sauced foods: Pickled vegetables (pickled mustard tuber, sour mustard, preserved mustard, potherb mustard, preserved mustard-green), ham, sausage, smoked chicken, fried fish/pork fiber, dried fish jerky, preserved eggs, salted eggs, meat in sauces</p> <p>Canned foods: pickled cucumbers, meat sauce, sardines, tuna, fermented soybean curds, Satay sauce, bean paste, tomato sauce, black vinegar, Miso</p> <p>Frozen salted vegetables: peas and green beans</p> <p>Others: thin noodles, alkaline noodles, instant noodles, soda crackers, preserved fruits, dried fruits</p>	<p>Vegetables: carrots, lavers, kelp, celery</p>

Tips for low-salt cooking

- ① While you are cooking, you can add various seasonings, such as white sugar, white vinegar, wine, lemon juice, onion, ginger, garlic, star anise, prickly ash, cilantro, cinnamon, and others, to make foods more delicious.
- ② While dining out, you can use hot water to wash out excess salt.
- ③ Do not add any seasonings on the table to your meals, such as pepper salt, or chili sauce.
- ④ Do not eat soup.

5. Rules for Fluid Restriction

If CKD (Chronic Kidney Disease) patients exhibit symptoms of oliguria, the amount of water intake every day will be the total urine volume from the previous day, plus about 500 ~700 milliliters of water, in order to prevent edema (Keep your daily weight change within a range of 0.5 kilograms).



9. Q & A

Q Do steroids have any effect on my kidneys?

A Steroids may be prescribed by your doctor to treat some types of chronic kidney disease, especially those related to immune disorders, in order to improve the condition of the disease. . If the kidney function deteriorates, it is due to the progress of the disease, and not related to the use of steroids.

Q Do I have to have a kidney biopsy?

A A piece of kidney tissue, about 0.5 cm, the size of pencil lead, is removed from your body for a microscopic examination in the laboratory. The test results can determine the cause of kidney disease and predict the course of the disease; furthermore, a biopsy helps in selecting the best way of treatment and planning for long-term treatment.

Q Is flank pain a warning sign of kidney disease?

A Improper posture or spinal problems may also result in soreness and pain in your lower back muscles of both sides; therefore, it is recommended that you should consult a nephrologist for further examination.

Q Does foaming urine (protein urine) mean that the kidney function is impaired?

A It is not a clear indication. Foaming urine may be related to high urine protein, but other situations may also cause foaming urine. A further examination is needed to confirm the exact cause.

Q Does “Kidney Debility” (terminology in herbal medicine meaning impaired sexual function and chronic ill looking) always accompany kidney disease?

A People often take it for granted that kidney disease and “Kidney Debility” are the same. Actually, kidney disease means kidney function is damaged, which has nothing to do with the so-called “Kidney Debility”.

Q What are the risks of having high blood potassium level in patients with renal disease?

A The symptoms of an excessively high blood potassium level are: weakness, low blood pressure, electrocardiogram changes, and an irregular pulse. If condition gets worse, it will result in ventricular tachycardia or cardiac arrest.

Q When blood pressure is under control, does it mean that we can stop using antihypertensive medications to prevent the drugs from damaging the kidneys?

A Blood pressure should be maintained below 130/80mmHg. Blood pressure fluctuation accelerates the damage to kidney vessels. Accordingly, it is not a good idea to stop taking antihypertensive drugs without your doctor's consent. You must follow your doctor's instructions on when to decrease or adjust the dosage of your medication.

Q I am taking medication for the treatment of kidney disease and I feel much better now. Can I stop taking the medication?

A There is no clear sign, no specific discomforts, nor tiredness symptoms at the very early stage of renal diseases. It is not until terminal stage that symptoms such as weakness, lack of energy, fatigue and anemia may develop. Once you are diagnosed with kidney disease, you should continue the remedy and keep the regular follow-ups. It is imperative that you do not adjust your medication on your own, or stop seeing a doctor if you feel that your symptoms have diminished. You should consult your doctor to discuss your situation before making any adjustment.

Q I was diagnosed with Chronic Kidney Disease two years ago; since then, I have been following my doctor's instructions to take my medication regularly. Nevertheless, my blood creatinine doesn't decrease. On the contrary, it seems to be rising gradually.

A It is easy to be cared at the early stage; however, the medication and treatment for the late stage of chronic kidney disease basically only aims to slow down the kidney damage. Kidney damage is progressive with time and consequently, the level of blood creatinine rises.

Q Is uremia incurable?

A Uremia is the manifestations of End Stage Renal Disease, when a kidney function is less than 15% of a normal one. It can neither effectively eliminate metabolites from the body, nor balance the acid and base homeostasis. The damage to kidney function in chronic renal disease in the late stage is irreversible, thus, once uremia appears, one needs to take dialysis treatment in the near future.

Q Will dialysis be a habitual treatment?

A When the End Stage Renal Disease results in uremia, the kidney is unable to remove toxic substances and excess water from the body, thus, the patients must depend on dialysis to wash out the constantly produced wastes from the body. It must be done regularly; otherwise, it might lead to death resulting from pulmonary edema, hyperkalemia or metabolic Acidosis. Therefore, patients in the terminal-stage of kidney disease need dialysis to maintain their normal physiological condition.

Q Do kidney disease patients inevitably have to receive dialysis treatment in the future?

A Not quite, not every one needs to have dialysis. The determining factors are: the causes and types of kidney disease, whether the patients have been receiving professional care (no folk / herbal prescriptions), and whether they are being in the third or fourth stage of chronic kidney disease.

Q I have a kidney problem that makes me feel weak and fatigued. I was advised by my friends that I should take some nourishing tonics as a nutritional supplement. Should I?

A Nourishing tonics might worsen your kidney function quickly. Here are the reasons:

- * Poultry, pork, mutton, fish elevate the blood levels of BUN (Blood Urea Nitrogen) and creatinine.

- * A stew of Chinese herbs, angelica, Siwu decoction, ginger soup, and so on, will produce a higher number of potassium ions.

- * Fat produced by alcohol and fatty meat will increase your blood cholesterol.

- * Soup and salt are liable to accumulate water.

The cause of weakness and fatigue in impaired renal function patients might be due to anemia. A simple blood test could tell. To improve their nutrition and modify their diet, patients with kidney disease should consult professional dietitians.

Q I have been diagnosed by a doctor as having oliguria and edema due to poor kidney function. Can I eat green beans to stimulate urination?

A Green bean soup contains high level of phosphates and purine. The phosphate cannot be eliminated when the kidney is not working well. It results in high blood phosphate that leads to Renal Osteodystrophy. In addition, having too much phosphate makes your skin itch. To restrict your phosphate intake, you need to avoid green beans. Oliguria and edema can be improved through evaluation and management by your doctor.

Q I suffer from poor kidney function and I get a cold quite often; can I eat black sesame or grains to improve my immune system?

A Black sesame and grains are full of potassium and phosphates. The phosphates cannot be eliminated when the kidney function is impaired, the resulting high level of phosphates in the blood leads to Renal Osteodystrophy. It is recommended that you should get an influenza vaccine and take regular exercise to enhance your immunity.

Q I suffer from poor kidney function, and excessive protein intake places a burden on the kidney. In this case, should I just stop eating all foods containing protein?

A The appropriate restriction of protein intake can reduce pressure on the kidney. Yet, it does not mean you should eliminate completely your intake of protein. The reason is that lack of protein causes a malnutrition problem; for example, a decrease in blood protein, weakens the immune system, makes you more vulnerable to infections. How much protein renal patients should eat depends on the stage of their disease. It is suggested that everyone should eat 75 to 150 grams of meat (the size of 37.5 grams of meat is about equal to the width of three fingers). Protein in foods with high biological value are the best sources, such as meat, fish, poultry, soy beans, eggs and dairy products.

Q Renal patients should eat low-salt meals. Does it mean low-sodium salt good for me?

A Low-sodium salt usually has a high level of potassium, which is eliminated through the kidney. Kidney disease easily leads to high blood potassium, thus the renal patients are not recommended to eat low-sodium salt. The best salt is ordinary salt; and to use less.

Q I was told by my doctor that I have a high level of lipids in my bloodstream and poor kidney function. Thus, how do I choose a proper diet?

A

1. No fried, broiled or oil-crisped foods; no pork skin, chicken skin, duck skin, fish skin, or others.
2. Avoid processed foods, like cakes, hot dogs, hamburgers, pastries, meatballs, braised meatballs, and sausages.
3. Try not to consume too much soup and foods with starch as a thickener when dining out.
4. It is better to use fewer unsaturated fatty acids while stir-frying (for example, lard, tallow, animal fats, and butter).
5. For those who enjoy sweets, it is advisable to use a sugar substitute.
6. You can replace some meat with fish containing w-3 fatty acids (for example, Pacific saury, salmon, Japanese scombroid, eel and spadefish).

Q I was told that tofu is inappropriate for people with poor kidney function. Is this correct?

A Tofu is made of soy beans containing high-quality protein. For those who have poor kidney function and have to limit the protein intake, tofu can provide excellent quality protein; moreover, tofu is helpful in maintaining the function of the kidney.

Q I was advised by a dietitian that I have to eat low-protein snacks as a calorie supplement. Should I eat them every day?

A Severe restrictions on protein intake can easily lead to an insufficient caloric intake. A lack of calories results in body protein decomposition, and worsens the kidney disease. Thus, you should eat those foods with high calories and low protein to ensure getting enough energy. Therefore, it is suggested that you eat low-protein snacks on a daily basis to ensure an adequate level of caloric intake.

Q I used to take nourishing tonics in the winter to keep my body warm. Now, I suffer from poor kidney function, can I still take them?

A Generally, it is not a good idea to consume nourishing tonics in the winter, since they might worsen your kidney function. You should be cautious about your consumption of tonics.

Q Can I continue to enjoy hot pots?

A While enjoying hot pots, please pay attention to the followings:

1. Try to eat fresh foods as much as possible. Do not eat artificial or processed stuffed dumplings and avoid consuming too much salt.
2. Sliced meats, seafood, and tofu are good choices for hot pots; nevertheless, you should eat appropriately to control your protein intake. You should consult your dietitian to determine the proper protein amount you can eat.
3. Green bean noodles are a principal and low-protein food, and you could eat more.
4. Put more vegetables in the hot pots.
5. Avoid eating soup in the hot pot, since it contains excessive of salt, potassium and purine.

Q I enjoy soup. Can I eat soup even if I suffer from poor kidney function?

A Soups usually contain too much salt; therefore, patients with hypertension and renal disease had better not to have soups. Furthermore, for those with potassium restrictions, they should avoid soups with high-potassium content. Thus, eating less or not having soup at all is preferred for those who have poor kidney function.