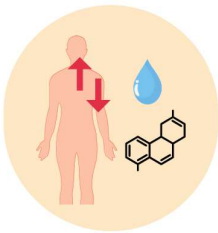


Healthy Eating Guide for Chronic Kidney Disease

What do kidneys do?

The main job of the kidneys is to filter out the blood to produce urine which contains waste and excess fluid.

Healthy kidneys also help to:



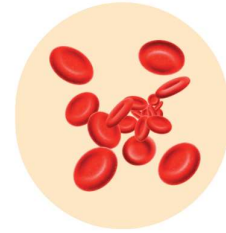
Balance both the body's fluids and chemicals



Release hormones that control blood pressure



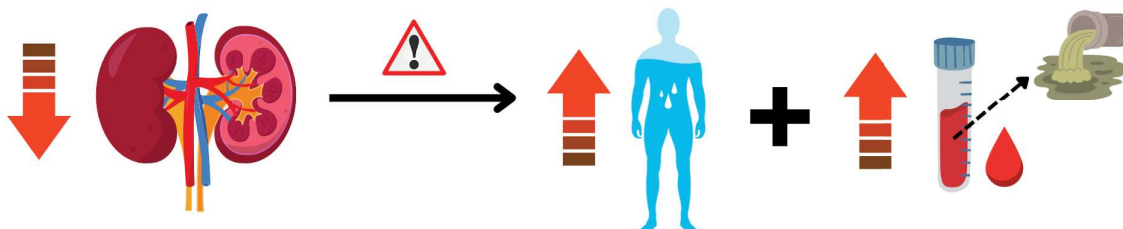
Keep bones healthy and strong



Control the production of red blood cells

What is chronic kidney disease?

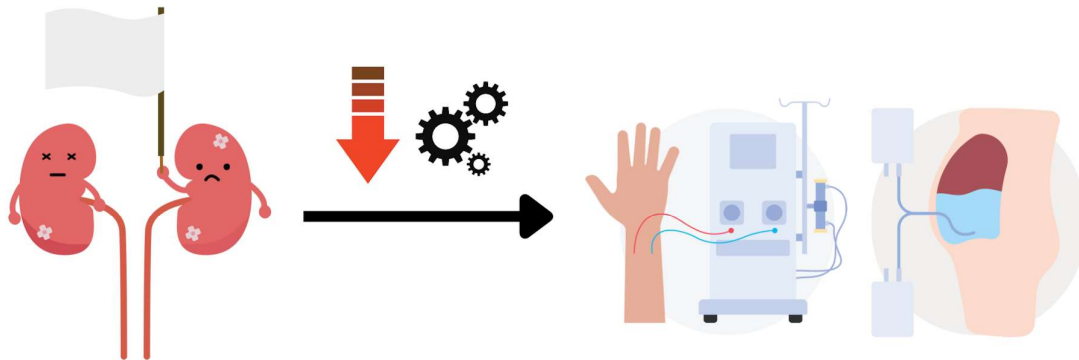
Chronic kidney disease is when the kidneys slowly stop removing waste and extra fluid from the blood. This causes waste and water to build up in the body.



How does the waste build-up affect me?

These excess wastes in your blood can cause a loss of appetite, taste changes, nausea and vomiting. Over time, it causes weak bones, nerve damage, high blood pressure and heart disease.

Kidney failure occurs when the waste products reach toxic levels. The treatment options will be dialysis or kidney transplant.



How can I manage kidney disease through diet and lifestyle?

- Maintain healthy blood pressure
- Keep your weight within healthy range
- Adopt a kidney friendly diet – consume the right amount of calories, protein and cut back on sodium
- Talk to your doctor/ dietitian about whether you need to limit phosphorus, potassium and fluids
- Stop smoking if you are a smoker
- Reduce or avoid alcohol intake
- Manage your blood sugar well if you have diabetes

Eating the Right Amount of Protein

Why is protein important?



Keeps your muscles strong











Repairs your tissue



Helps you to prevent and fight infections

What are the sources of protein food?

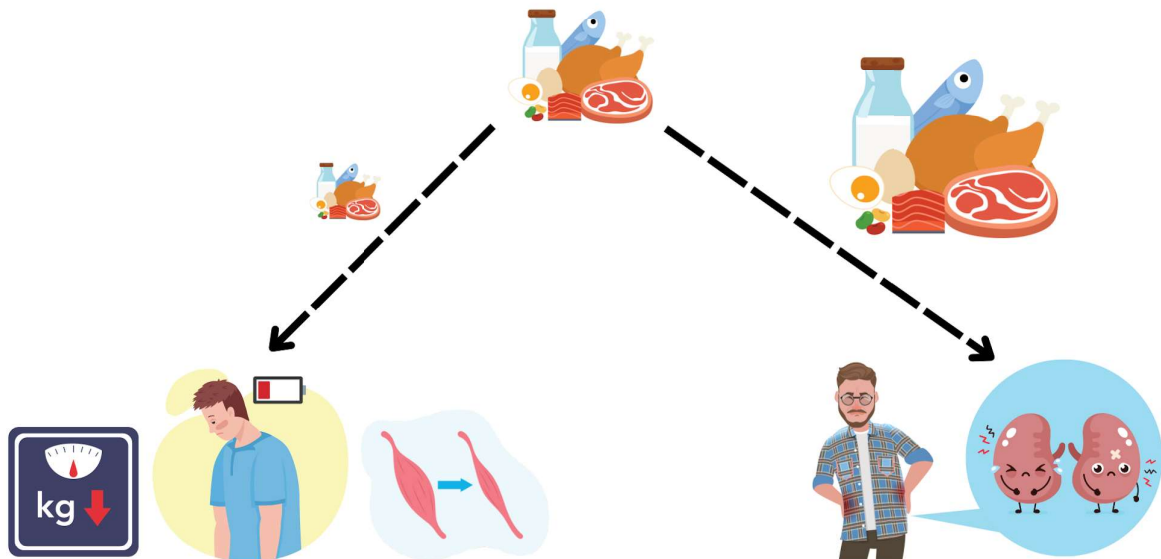
There are 2 types of protein food:

Animal protein		Plant protein	
 Fish and seafood	 Poultry and meat	 Wholegrains	 Nuts and seeds
 Eggs	 Dairy products	 Legumes (beans, lentils)	 Soy products

You can have both animal and plant food.

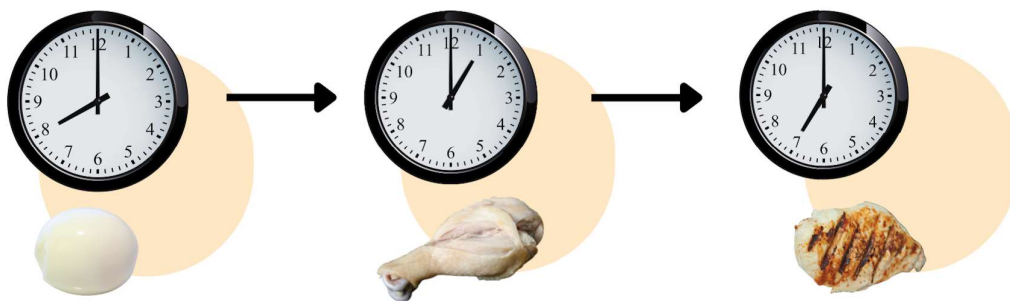
Why do I have to watch my protein intake?

Eating the right amount of protein is important in kidney disease. Too little protein intake can lead to undernutrition. On the other hand, eating too much protein strains the kidneys, increases the level of waste products and speeds up the decline of kidney function.



How much protein do I need?

Each person has different protein needs. Your dietitian will advise you on the amount or EXCHANGES of protein you need every day. You should space your protein throughout the day for better absorption!



Consuming more protein than is needed each time can just be a waste, and increases the work your kidney has to do.

What does 1 exchange of protein look like?

Each of the following foods contain 1 exchange (7g) of protein and can be exchanged for one another.

Meat/ Fish/ Poultry (without bones and skin)



1 matchbox size
40g raw (30g cooked)



2 tablespoons
40g raw (30g cooked)

Shellfish (no shell)



4 medium prawns
50g raw (40g cooked)



1 medium squid
50g raw (40g cooked)

Egg



2 egg whites (50-60g)



1 medium egg (70g)

Beancurd/ Tempeh



1/3 block soft tofu
(90-100g)



1/2 square taukwa
(60g)



1 piece tempeh
(50g)

The following foods are higher in phosphorus and potassium. Sometimes, high levels of potassium and phosphorus in your blood may become an issue. When that happens, you may need to limit these in your diet. Your dietitian will advise on the portions best for you.

Legumes (Lentils/ Beans/ Peas)



2 tablespoons or ¼ cup
(30g raw)

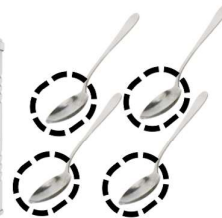


3 tablespoons or ½ cup
(90g cooked)

Milk/ Soymilk/ Yogurt/ Cheese



1 cup milk/ soymilk
(250ml)



4 tablespoons milk powder
(30-40g)



1 small tub yogurt
(150ml)



1.5 slices cheese (30g)

Limit cheese due to high sodium content

Nuts/ Seeds (plain, unsalted)



¼ cup or 1 small handful
(30g)



2 tablespoons nut butter
(30g)

Are some proteins better than others?

Protein-rich animal food can be high in fat and cholesterol. You can choose to eat more heart-friendly proteins instead. Good choices include fish, chicken breast, egg white and low-fat dairy products.





You can also try swapping animal proteins for plant proteins once or twice a week. Plant proteins are lower in saturated fat, higher in fiber and can help to promote kidney health.



Limiting Sodium Intake

What is sodium?

Sodium is a part of salt. It is found naturally in most foods. However, most of the sodium in our diet comes from:

Seasonings	Processed/ preserved food products
<ul style="list-style-type: none"> • Soy sauce • Salt • Monosodium Glutamate (MSG) • Teriyaki sauce • Oyster sauce • Chili/ Tomato sauce 	<ul style="list-style-type: none"> • Ham • Sausages • Seaweed chicken • Sardine • Salted egg/ fish • Preserved vegetables 

Aim for no more than 2000 – 2400mg of sodium a day

That's about 1 teaspoon (5g) of salt!



Why do I have to limit sodium intake?

As your kidney function declines, your body is less able to remove extra sodium from your blood. Eating too much sodium can make you thirsty and cause your body to retain more fluid. The extra sodium and fluid can cause:



Swelling
around eyes/
hands/ feet



Shortness
of breath



Fluid
weight gain



A rise in blood
pressure

What can I do to reduce sodium intake?

Tip 1: Be a creative chef

- Use salt, seasonings and sauces sparingly



- Use whole herbs and spices to flavor your meal
- Use fresh and natural food as your main ingredients



Here are a list of herbs and spices that you can try out:

- Basil
- Chives
- Garlic
- Paprika
- Parsley
- Cumin
- Ginger
- Vinegar
- Mint
- Chilli powder
- Curry powder
- Turmeric powder
- Bay leaf
- Black pepper
- Lemon, Lime
- Five spice powder



Try this marinade recipe to flavour your food!

Blend 2 tablespoons chopped basil, 2 tablespoons thyme and 2 tablespoons grated lemon peel. Store in a tightly closed jar in the freezer!



Tip 2: Eat out smartly

- Cut down on gravy, sauces, dressings and soup



- Choose plain rice over flavored rice, and rice noodles over yellow noodles



- Limit food that are obviously salty such as salted egg, luncheon meat, pickles, fish ball, fish cakes and nuggets



Tip 3: Shop wisely

- Look for the healthier choice symbol on the menu and choose food products labelled "Lower in Sodium" and "No Added Sodium"



- Always read the food label. Look out for hidden sodium in words like marinated, cured, pickled, smoked, brined and breaded



- Check the ingredient list. You should look for lower sodium alternatives if salt is listed in the first five ingredients.



INGREDIENTS

Leaf Mustard, Vegetarian Soy Sauce, Sugar, Salt, Monosodium Glutamate, Sodium Metabisulphite

Do you know?

Sodium can be listed as salt, sea salt, vegetable salt, rock salt, sodium chloride, monosodium glutamate, sodium bicarbonate or stock cubes.

Can I use salt substitutes to replace salt?

Most of the salt substitutes contain potassium. If you are told to limit potassium in your diet, be extra cautious with it. Check with your doctor or dietitian before using salt substitutes.

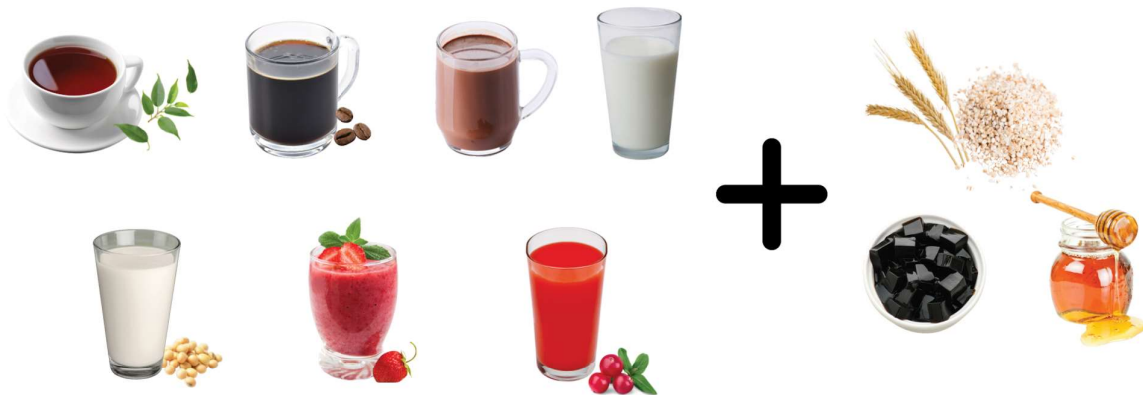


What can I do when I have trouble eating enough?

When you are making changes to your diet, your calorie intake may reduce. This can cause undesirable weight loss. As a result, you may need to get extra calories from other foods.

You can try the following tips to help meet your body's needs:

Add barley/ grass jelly/ honey/ sugar in your beverages



Add sago/ plain agar-agar/ sorbet in your desserts



Use margarine/ jam spreads on your bread/ biscuits



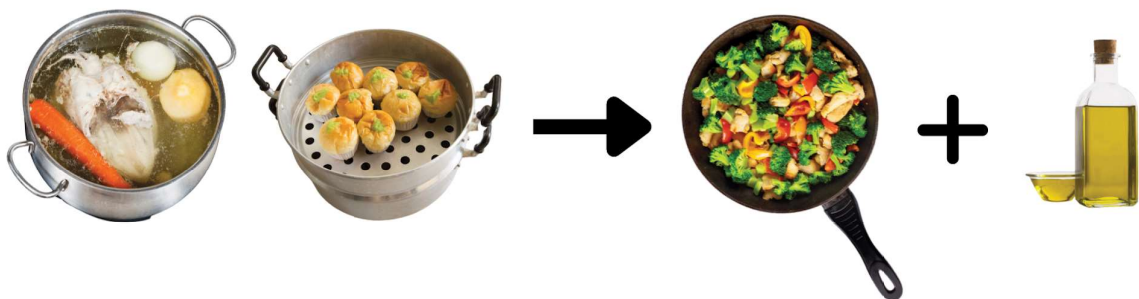
Add sesame oil to your dishes after cooking



Stir fry your meat or vegetable dishes with low protein starches like tanghoun/ sweet potato noodle



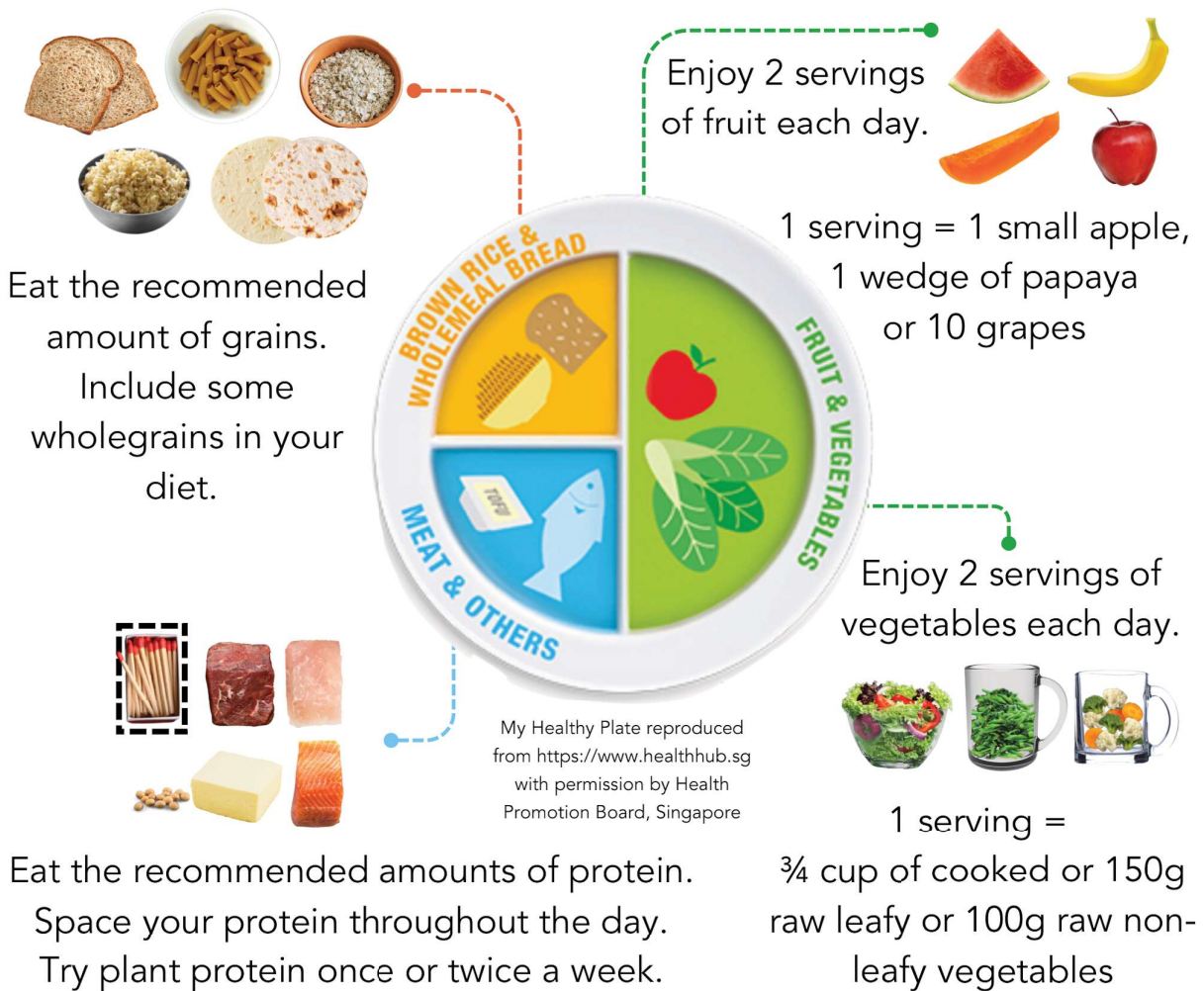
Stir fry your meals with healthy cooking oils instead of plain steaming or boiling



If you have diabetes, your dietitian will tell you the best way to incorporate the tips above while keeping your blood sugar in control!

Putting It All Together

For each meal, you can include something from these food groups and enjoy the food in the portions advised by your dietitian:



Stir fry your dishes with healthy cooking oil instead of plain steaming or boiling



Season your food with herbs and spices. Always choose food with lesser sodium content.



Your diet may change depending on your blood test results. Your dietitian will review your results and make suggestions if needed.



Contributed by Nutrition & Dietetics Service, Allied Health Services

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