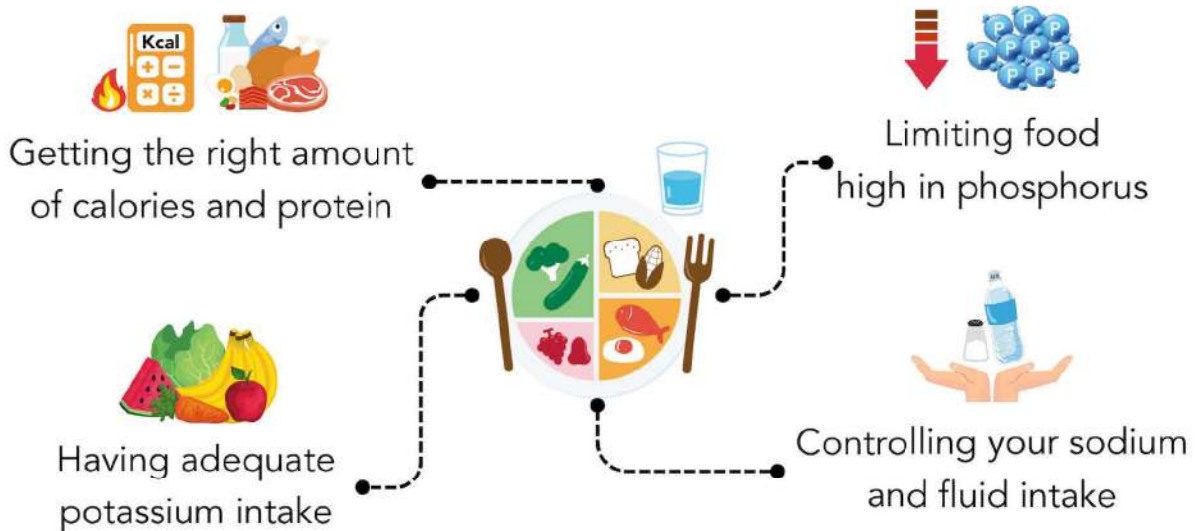


Healthy Eating Guide for Peritoneal Dialysis

What is the diet for peritoneal dialysis?

As you perform peritoneal dialysis (PD) daily, the body does not build up as much wastes and toxins in your blood. It is important to know how to manage your diet through:



Getting the right amount of calories

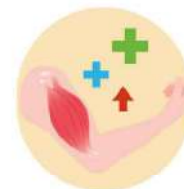
Calories come from all the food you eat. It is important to eat the right amount of calories to:



Provide energy to do the activities you enjoy



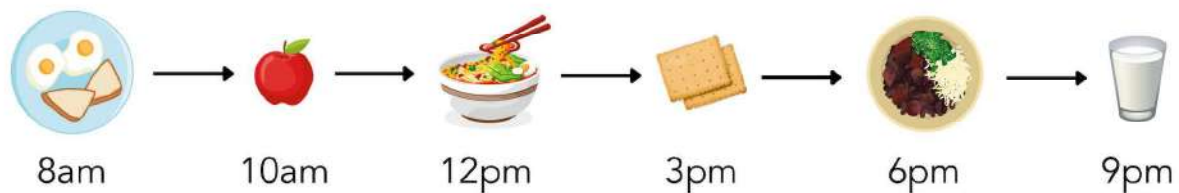
Maintain a healthy weight



Help your body use protein for building muscles

You may have difficulty getting enough calories when you first start PD. The dialysis solution may give you a sense of fullness in your stomach and may reduce your appetite.

During the first few weeks, you may choose to eat smaller meals, five or six times a day. This helps to give your body the calories it needs.



Over time, many people gain unwanted weight on PD. Your body absorbs some dextrose, a sugar present in your dialysis solution. This can lead to additional calories.

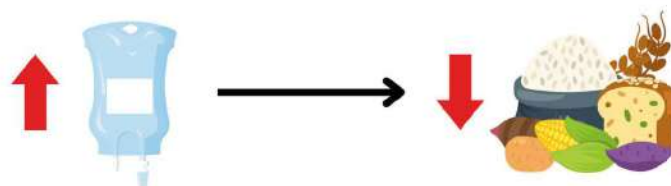


The more concentrated the solution, the more dextrose it contains and hence, the more calories they provide. These extra calories add up and may lead to weight gain.

If you have diabetes, the extra dextrose from your dialysis solution can also cause a rise in your blood sugar levels.

What should I do?

You may need to limit food with high carbohydrate content as you are getting extra calories from the dialysis solution. Your dietitian will help you plan your meals to prevent extra weight gain and high blood sugar levels.



Getting the right amount of protein

Before you started PD, you may have been on a low-protein diet to limit the amount of waste products in your blood. Now that you have started PD, your treatments will remove some of these waste products.

However, this process also removes some protein that your body needs. Eating a HIGHER-PROTEIN DIET can help you replace the protein that was lost during PD.

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:

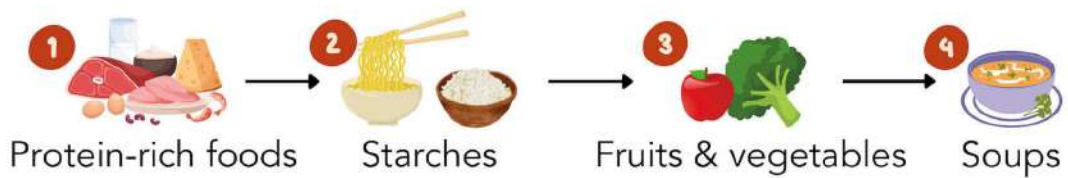
Animal protein	Plant protein
	
Fish and seafood	Wholegrains
	
Poultry and meat	Nuts and seeds
	
Eggs	Legumes (beans, lentils)
	
Dairy products	Soy products

How much protein do I need?

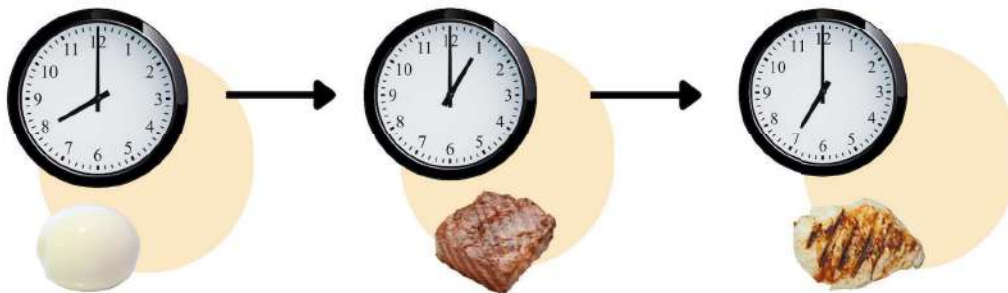
Most people on dialysis may need to eat at least 6 to 9 exchanges of protein each day. Your dietitian will advise you on the amount or EXCHANGES of protein you need.

Here are some tips to achieve your protein intake goals:

- Eat protein-rich food first at each meal before you have the chance to feel full

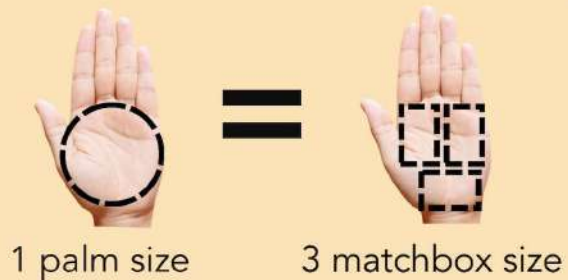


- Include a protein-rich food with each meal and snack. Your body needs protein throughout the day.
- Introduce variety and try switching up your protein sources



Do you know?

You can use your hand as a guide to estimate your protein intake. One palm-sized of meat is approximately 3 exchanges.



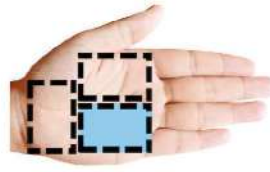
What does 1 exchange of protein look like?

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)



$\frac{1}{3}$ palm 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



$\frac{1}{3}$ block soft tofu
(90-100g)



$\frac{1}{2}$ 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



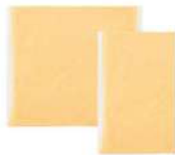
1 cup milk/ soymilk
(250ml)



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)

Limiting food high phosphorus

Phosphorus, along with other minerals, helps to keep your bones and teeth strong.

There are 2 main sources of phosphorus found in our diet:

Organic phosphorus	Inorganic phosphorus
<p>Found naturally in protein-rich food such as meat, fish, poultry, beans, lentils and dairy.</p> 	<p><u>Phosphate additives</u> added to food and beverages such as processed and marinated meats, fast food and shelf stable canned food.</p> 

Eating food high in phosphorus will increase the amount of phosphorus in your blood. As PD cannot remove phosphorus completely, it may be built up in your body and cause complications such as itchy skin, weak bones, joint pain and hardening of your blood vessels.

You can help to improve your blood phosphorus level by:



- Keeping protein-rich food intake within the recommended amounts
- Opting for fresh food instead of processed food
- Taking phosphate binders as prescribed by your medical team

Controlling your sodium and fluid 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• Chilli/ Tomato sauce 	<ul style="list-style-type: none">• Ham• Sausages• Seaweed chicken• Sardine• Salted egg/ fish• Preserved vegetables 

Why do I have to limit sodium intake since I am on PD?

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 and/or feet, shortness of breath, fluid weight gain and a rise in blood pressure.



Swelling around eyes/ hands/ feet



Shortness of breath



Fluid weight gain



A rise in blood pressure

Your doctor may also have to use more concentrated dialysis solutions to help remove the excess fluid. The extra calories from the solution may cause you to gain weight.

What can I do to reduce sodium intake?





- Minimise the consumption of canned and processed food
- Limit the amount of salt/ sauces added during cooking
- Learn to flavor your food with herbs and spices instead of sauces and seasonings



It takes 4-6 weeks for your taste buds to adapt to the flavour of lower-sodium food. When you limit sodium intake, it will be easier for you to cut down on fluid intake too.

How much fluid can I consume a day?

The amount of fluid you can consume a day depends on your urine output, remaining kidney function and body size. It is important to check with your doctor about your daily fluid allowance.

Examples of fluids	
 Ice	 Porridge, gravy and soup
 Beverages (e.g. coffee, tea, juices, milk and water)	 Snacks and desserts (e.g. ice-cream, sherbet, popsicles, agar-agar and yogurt)

How can I tell if I am consuming too much fluid?

You can keep track of your fluid intake and the amount of fluid removed in your PD exchanges.

You will also record your weight every day while on PD. A sudden weight gain may mean that you are consuming too much fluid.



Ensuring adequate potassium intake

Your heart, muscles and nerves need potassium to work well. You can find potassium in almost all food.

Higher amounts of potassium are found in:

- Certain fruits and vegetables like bananas, melons, potatoes, tomatoes and some juices
- Milk, yogurt and soymilk
- Nuts, seeds and legumes
- Most salt substitutes like pan salt, NU-salt and other potassium-salt
- Meat, poultry and fish



Do I have to limit potassium since I am on PD?

Too much or too little potassium in your blood is very dangerous. It may cause your heart to beat irregularly and even stop beating. With PD, you may need to increase or decrease the amount of potassium in your diet.

Every individual is different. Your doctor will check your potassium level regularly. Your dietitian can help you decide if high-potassium food is right for you.



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:

Eat the recommended amount of grains. Include some wholegrains in your diet.

Enjoy 2 servings of fruit each day.
1 serving = 1 small apple, 1 wedge of papaya or 10 grapes

Enjoy 2 servings of vegetables each day.
1 serving = $\frac{3}{4}$ cup of cooked vegetables

Choose fresh and lean protein food at each main meal. Some protein food is higher in phosphorus, so watch the portion and frequency of intake.

My Healthy Plate reproduced from <https://www.healthhub.sg> with permission by Health Promotion Board, Singapore

Drink within the recommended amount advised by your doctor.



Season your food with herbs and spices. Always choose food with lower 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

This brochure is produced for educational purposes and should not be used as a substitute for medical diagnosis or treatment. Please seek the advice of a qualified healthcare provider before starting any treatment or if you have any questions related to your health or medical condition.

Information shared is accurate as of May 2024 and subject to revision without prior notice.



Scan QR code to download e-brochure