

Kidney Disease and Your Diet



Department of Nutrition Services
Kidney and Urinary Program

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Inside this book

	Page number
Kidney Disease and Your Diet	1
Protein	3
Potassium	6
Potassium Food Lists	9
Phosphorus	12
Sample Diet Guidelines	14
Sodium	16
Herb and Spice Guide	19
Fluids	20
Staying a Healthy Weight	22
Bread, Grains and Other Starches	24
Fats	25
Sugar and Sugar Containing Food	26
Your Daily Choices	27
Sample Menu Plan	28
Tips on Eating Out	30
Reading Labels	35
Cook Books	41

Kidney Disease and Your Diet

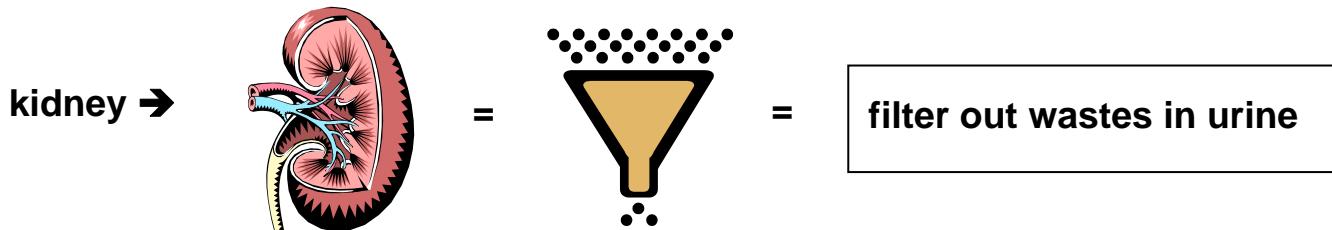
About your kidneys

Your kidneys are shaped like kidney beans. Each one is the size of your fist. A kidney has about 1 million tiny filters inside.

What do kidneys do?

Kidneys have 3 main jobs . . .

- They filter and remove waste from blood and make urine.



- They control the salt and water balance in your body.
- They produce hormones that help make red blood cells and keep your bones healthy.

What happens when kidneys have a disease?

Kidney disease affects all the jobs that healthy kidneys do.

Kidneys with a disease do not remove waste out of your body very well. Wastes start to build up in your body.

Where does the waste come from?

Waste comes from the food we eat. Our food is made up of proteins, fat and starches. When we eat food, the body digests it. The blood absorbs the digested food and takes it to all the cells to be used.

After each cell uses the food it needs, it puts the waste back in the blood. The blood then takes the waste to the kidneys.

The kidneys filter the waste into the urine.

When you have kidney disease, the waste is not filtered and builds up in your body instead.

How does the build up of waste affect me?

With waste build up, you:

- may not feel like eating
- may lose weight
- may have less energy or get tired easy
- may hold extra salt and water in your body causing swelling

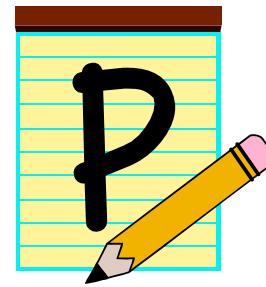
How can I help myself feel better?

You will need to look at your eating habits closely. You may have to reduce the amount of some foods in your diet. You may need to give up certain foods. The changes you make will depend on your eating habits.

What will I need to know about my diet?

You will learn about the 3 Ps:

- Protein
- Potassium
- Phosphorous



You will also learn about salt, water and calories. You will learn what these do in your body, what foods they are in and what changes you need to make.

There is a lot to learn about kidney disease and diet. Begin with the basics and add more information as time goes on. Your dietitian will help you and your family learn about your diet and how to make changes. You will be able to ask questions and learn how to stay healthy.

You should feel free to contact your dietitian when you need help or support with your diet.

Protein

What are proteins?

Proteins are used by the body for growth and to build and repair muscles and other tissues.

What food has protein?

The amount of protein in food varies.



Good quality protein is in:

- meat, chicken, fish, eggs, cheese and milk

Smaller amounts of lower quality protein are in:

- bread, cereal, pasta, rice and vegetables

Your body needs both kinds of protein food at the same time to work well.

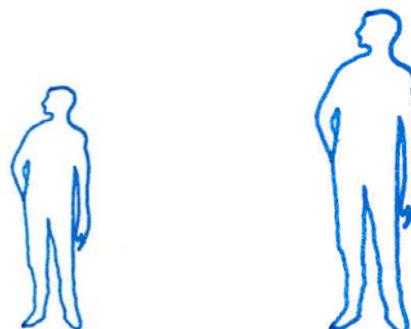
What does my body do with protein?

The blood brings the protein to build and repair your muscles. A waste product called urea is formed after your body uses the protein. Since urea cannot be filtered by your kidneys very well, it builds up in your body.

Urea can make you feel unwell. You may not feel like eating or you may vomit. Urea also causes itchy skin.

How much protein does my body need?

The amount of protein you need depends on your height and weight. A large person needs more protein than a small person.



less protein

more protein

Is too much protein bad?

The kidney is the only organ in the body that removes urea.

When you have kidney disease, you need to try and protect the working filters. For example, if your kidneys are working at 20%, this means only 20% of the filters are filtering urea.

By eating too much protein, you make these filters work even harder. Overwork will damage the good filters very fast.



Can I stay off dialysis treatments by following my diet?

Following your diet can help you stay off dialysis for as long as possible.

Avoid extra protein to take the pressure off the good filters.

You need to eat the right amount of good quality protein to help your body build muscles and do the repair work needed.

Will I always have to eat less protein to protect my kidneys?

You will have to limit protein foods to prolong the life of your kidneys. This will help you keep off dialysis treatments.

Since dialysis increases protein loss, people having dialysis treatments need more protein. They need to follow their dialysis diet that contains extra protein to stay healthy and prevent muscle wasting.

What are some examples of protein choices?

Your dietitian will help you with the number of protein choices you can have each day.

Food	Amount = 1 choice
beef, pork, veal, chicken, turkey fish, shrimp	1 ounce or 30 grams
egg	1
hard cheese: colby, swiss, cheddar, mozzarella or gouda	1 ounce or 30 grams
cottage cheese	1/4 cup
canned tuna or salmon	1/4 cup
peanut butter	1 tablespoon

Avoid these protein choices that are high in salt. The ones marked by (P) are also high in Phosphorus:

- ham, bacon
- bologna, salami, sausages, wieners or hot dogs
- liver, heart, kidney (P)
- blue cheese, feta cheese, processed cheese slices or spreads (P)
- sardines, oysters (P)
- anchovies

Potassium

What is potassium?

Potassium is a mineral found in food. Your muscles and nerves need potassium to work well. Your heart muscle needs potassium for a strong beat.



Your kidneys filter extra potassium into your urine. When your kidneys slow down, only some of the filters work. Potassium then builds up in your body.

How does the build up of potassium affect me?

A high amount of potassium can make your heart beat irregular. Too much potassium can cause your heart to stop beating causing death.

What is the recommended amount of potassium in blood?

A safe or normal level is 3.5 to 5.0 mmols. A potassium level over 6.0 mmols is not safe.

How will I feel if my potassium level is getting too high?

You may not have any warning signs. Some people feel weak in the legs or a feeling of rubber legs.



What foods are high in potassium?

All fruit, vegetables and their juices contain potassium. Some have more potassium than others. Milk and milk products such as yogurt, pudding, ice cream and buttermilk are also high in potassium.

What should I know when making choices?

The amount or portion of the food you eat is important. A low potassium food can become a high potassium food if you eat a large amount.

The number of choices is important too. You get more potassium if you increase the number of choices you eat.

Will I be able to eat potatoes?

Potatoes are very high in potassium. Avoid baked potatoes or potatoes cooked in a microwave because all of the potassium stays inside the potatoes. Avoid scalloped and instant mashed potatoes as well as French fries.

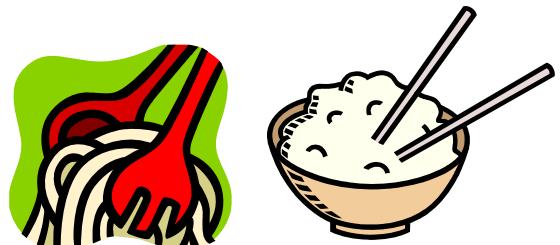
Peeling, cutting and soaking potatoes in water overnight leaches out some of the potassium. Boil the potatoes in fresh water the next day.

You can double boil the potatoes to lower potassium. Cut the potatoes in small pieces. Boil them in water until half cooked. Change the water and boil them again until cooked. Then throw the water out.



Potatoes fill me up. What else can I eat?

You can eat rice and pasta since they have very little potassium.



Can I have salt substitutes?

No, salt substitutes are made with potassium.

Can I take any medication to lower potassium?

A medication called Kayexalate® may be prescribed to remove potassium. Most people prefer to control the amount of potassium in their diet since Kayexalate® tastes bad.

What if I take a water pill medication

Some water pill medications may remove potassium from your body. If this happens, you will be asked to increase potassium in your diet.

How do I know how much potassium I should eat?

The amount of potassium you need depends on:

- how much potassium you eat now
- the potassium level in your blood
- if you are taking medication that affects potassium
- how well your kidneys work
- if you make some urine or do not make any urine
- if you are on dialysis treatments



Potassium Food Lists

There are 2 food lists in this book:

- Low and Medium Potassium Foods (page 10)
- High Potassium Foods (page 11)

Follow these guidelines when using these lists:

- 1 serving equals $\frac{1}{2}$ cup or 1 small piece of fruit unless something else is written.
- Choose 3 fruit servings and 3 vegetable servings a day from the low to medium list.
- Your dietitian can help you work in some choices from the high list.

Foods not on the lists:

- Milk, yogurt, ice cream, pudding, soy milk and cream soups are high in potassium. Choose only 1 item a day.
- $\frac{1}{2}$ cup milk has the same amount of potassium as one fruit or vegetable choice from the low to medium list.
- Chocolates, nuts and dried peas and beans are high in potassium.
- $\frac{1}{2}$ cup of soup made from allowed vegetables counts as a vegetable serving.

Low and Medium Potassium Foods

Fruit and Juice	Vegetables
apricot – 2 small	alfalfa sprouts – 1 cup
apricot nectar	asparagus – 4 spears
apple	bamboo shoots
apple juice	beans: green, wax
applesauce	beets
berries: black, blue, goose, raspberries, strawberries	broccoli
cherries	bean sprouts
clementine	cabbage
cranberries - 2 cups	cauliflower
fig – 1 dry	carrots
fruit cocktail	celery – 1 stalk
grapefruit – ½	corn – or ½ ear
grapes	cucumber
grape juice	eggplant
lemon juice	endive
lime juice	escarole
mandarin orange	kale
nectarine ½	leeks
papaya nectar	lettuce
passion fruit	mixed vegetables
peach	mushrooms, fresh
pear- ½	okra
pear nectar	onions
pineapple	peas, snow peas
pineapple juice	pepper: red or green
prunes - 2	potato: mashed or boiled
prune juice – ¼ cup	radish
plum	spinach, raw
raisins - 2 tablespoons	summer squash (raw) - zucchini, crookneck, spaghetti
rhubarb	tomato – ½ medium
tangerine	tomato sauce, canned ¼ cup
watermelon	turnip
other: fruit pie: 1/8 piece using any of the above fruit	water chestnuts
	watercress
	other: vegetable soup

High Potassium Foods

Fruit and Juices	Vegetables
avocado	artichokes
banana	beet greens
cantaloupe	brussel sprouts
dates – 3	bok choy
fig – 1 dry	beans, dried
grapefruit juice	carrot juice
guava	collards
kiwi	dandelion greens
mango	lentils, legumes
melon - honeydew	lima beans
orange	mushrooms – canned, cooked
orange juice	parsnips
papaya	peas - dried
passion fruit juice	plantain
persimmon	potato – baked, instant, fries scalloped
pomegranate	pumpkin
	rapini
	rutabagas
	spinach, cooked
	squash (winter) – acorn, butternut, hubbard,
	sweet potato
	swiss chard
	tomato juice, vegetable juice
	yam

Phosphorus

What is phosphorus?

Phosphorus is a mineral found in many foods. After your body digests food, the phosphorus is absorbed into the blood. The blood then takes it to your bones to make them strong along with calcium. Extra phosphorus is filtered out of the body by healthy kidneys.

What happens when kidneys slow down?

As kidneys slow down, they are not able to filter out the extra phosphorus. This makes the amount of phosphorus in the blood too high.

What is the normal amount of phosphorus in blood?

This depends on how much of your kidneys are working.

- If you have slow kidneys and are not having dialysis treatments, you need a tight control of phosphorus. The range is 0.97 to 1.49 mmols/litre.
- If you are having dialysis treatments, the range is 1.13 to 1.78 mmols/litre.

What will happen if the phosphorus level is too high?

As the phosphorous level becomes high, the calcium - phosphorus balance is upset. This makes the level of calcium in the blood low.

What will a high phosphorus and low calcium level do to my bones?

Low blood calcium causes the parathyroid gland in your neck to release a hormone called parathyroid hormone. This hormone removes calcium out of bones. In time, bones become weak and brittle. You may suffer from bone and joint pain. Your bones can break easily. This is called bone disease.



How do I keep my phosphorus levels normal?

Phosphorus levels can be controlled by:

- the amount of phosphorus you eat
- taking phosphorus binder medication as prescribed
- dialysis treatments

What foods contain phosphorus?

Dairy products are very high in phosphorus. You will need to limit food such as milk, yogurt, cheese, ice cream and other dairy products.



Meat, fish and chicken also contain phosphorus. You will learn the amounts you can have of these foods as they also give you good quality protein. Your dietitian will help you with the amount that your body needs.

What is a phosphorus binder?

Your doctor may prescribe medication that lowers phosphorus in your blood. The medication is called a phosphorus binder. Some names are Calcium Carbonate, Calcium Acetate, Tums® or Renagel®.

Phosphorus binders work by sticking to phosphorus in food. The blood cannot absorb all the phosphorus. Therefore, your body gets less phosphorus.

When should the phosphorus binder be taken?

You will need to take this medication with meals so it can attach to the phosphorus in your food.



How much phosphorus binder do I need?

The amount depends on your diet. A large meal that contains more phosphorus may need more binder. A small meal that is low in phosphorus may need less. You will learn how to control your diet and take the binders as prescribed. This will help keep your bones in good health.

Sample Diet Guidelines

Dairy products	High quality protein foods	Other phosphorus foods
<p>Limit to 1 choice a day (1/2 cup a day):</p> <ul style="list-style-type: none"> • milk • cream soup • yogurt • ice cream • pudding • eggnog <p>Limit to 3 choices a week:</p> <ul style="list-style-type: none"> • 1 ounce cheese • ¼ cup cottage cheese <p>Avoid:</p> <ul style="list-style-type: none"> • processed cheese slices • cheese spreads 	<p>Use as prescribed:</p> <ul style="list-style-type: none"> • meat • chicken • turkey • fish • egg • salmon with no bones 	<p>Avoid these foods:</p> <ul style="list-style-type: none"> • nuts and seeds • bran cereals, granola • oatmeal • corn bread • wholegrain, dark rye, pumpernickel bread • legumes and lentils • baked beans • soy beans • dried peas and beans • organ meats • chocolates, cocoa, malt drinks • cola drinks • beer • canned salmon if you eat the bones • granola bars • pancake, waffle, muffin and cake mixes • English muffins • brown rice, wild rice • cake donuts • molasses

Milk, nuts, chocolate, dried peas and beans are high in potassium and phosphorus

Your role

You should take an active role managing your phosphorus levels and make good choices from the food lists. Be sure to take your medication to bind phosphorus as directed by your health care provider.

Sample Menu for Low and High Phosphorus Foods

Lower Phosphorus Menu		Higher Phosphorus Menu	
Breakfast		Breakfast	
4 oz. juice	15	4 oz. juice	15
1 egg	99	1 egg	99
1 white toast, butter, jam	21	1 whole wheat toast with butter and jam	52
1 cup quick cook cream of wheat	100	1 cup quick cook oatmeal	178
$\frac{1}{2}$ cup milk	117	1 tablespoon of All Bran added to oatmeal	36
		$\frac{1}{2}$ cup milk	117
Snack		Snack	
1 cup tea or coffee	0	1 cup tea or coffee	0
1 danish pastry	38	1 bran muffin	112
Lunch		Lunch	
2 slices white bread	40	1 cup pea soup	232
$\frac{1}{2}$ cup tuna for sandwich	196	sandwich - 2 slices of pumpernickel bread	146
$\frac{1}{2}$ cup pears	7	1 oz. cheese for sandwich	202
$\frac{1}{2}$ cup cranberry juice	3	1 oz. ham for sandwich	60
		$\frac{1}{2}$ cup fruit	7
		$\frac{1}{2}$ cup milk	117
Snack		Snack	
$\frac{1}{2}$ cup lemonade	4	$\frac{1}{2}$ cup pepsi or coke	52
1 cup popcorn	24	$\frac{1}{2}$ cup nuts	149
Dinner		Dinner	
3 oz chicken with gravy	225	3 oz. beef liver	405
$\frac{1}{2}$ cup mashed potato	48	$\frac{1}{2}$ cup mashed potato	48
$\frac{1}{2}$ cup green beans	24	$\frac{1}{2}$ cup green peas	70
$\frac{1}{2}$ cup jello	32	$\frac{1}{2}$ cup yogurt	108
1 white dinner roll	32	1 slice wholewheat bread	52
Evening Snack		Evening Snack	
$\frac{1}{2}$ cup gingerale	3	$\frac{1}{2}$ cup pepsi or coke	52
$\frac{1}{2}$ sandwich-1 oz meat on white bread	91	4 crackers	18
		2 tablespoons peanut butter	120
Total	1136	Total	2416

Sodium

What is sodium?

The common name for sodium is salt. It is found in many foods. You get salt when you use the salt shaker or add it to cooking. There is also hidden salt in processed and prepared foods.



What does salt do in my body?

Salt keeps the amount of water in your body balanced. It also helps to keep blood pressure normal. Your body needs very little salt. Extra salt is removed out of your body by the kidneys.

What happens when the kidneys slow down?

As the kidneys slow down, they may not be able to remove extra salt. Salt builds up in your body.

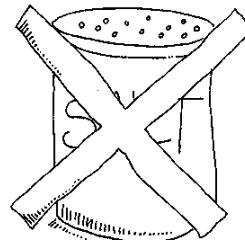
Since salt holds water with it, you may notice:

- you feel thirsty
- you have ankle swelling
- your weight may go up
- your blood pressure may go up

When there is too much salt and water in your body, you may have trouble breathing. This is caused by water in your lungs.

How can I cut down on salt in my diet?

- Give up the salt shaker.
- Avoid adding salt when cooking.
- Cut down on foods that contain hidden salt such as salty meat, snacks, processed food, canned soups, pickles and salted sauces.



Since many foods have hidden salt, you will need to learn how to read food labels.

Can I use salt substitutes?

You cannot use salt substitutes as they are made with potassium. It is not safe to use these substitutes if you have kidney disease. Avoid sea salt too.



What about salt free foods in the stores?

Some salt free products may be prepared with salt substitutes. This means they contain potassium. For example, salt free cheese may contain potassium. It is better to use regular, hard block cheese.

Some salt free products are misleading. For example, canned soups with less than 1% salt may actually have the same amount of salt as a regular soup when you compare the size of the serving.

What can I do when I eat out?

When you eat out, ask for food prepared without salt. Ask for gravies, sauces and dressings on the side. This way, you can use a smaller amount. If you have a few choices, pick food that you know does not contain a lot of salt.

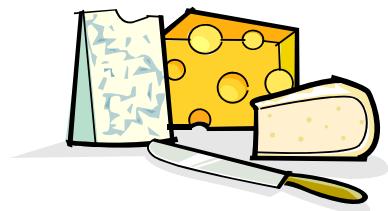


Tips to lower your salt

- Prepare your own foods to give you better control of what is in it.
- Choose fresh or frozen vegetables. Some canned vegetables have no added salt. Look for the label "No added salt".
- Make soup at home. Do not use bouillon cubes, powder or regular soup bases for flavour. You can use salt free soup bases. Be aware of potassium in salt free bases.
- Use fresh roast beef, turkey or chicken for sandwiches. Avoid cured smoked and pickled meats such as bologna, salami, and corned beef as they are very high in salt.
- Use leftovers to make your own frozen dinners. They make good, quick meals.



- Avoid seasoned salts such as onion salt, garlic salt and celery salt.
- Instead use fresh garlic, onion flakes, celery seeds and garlic powder.
- Make your own salad dressings. Use flavoured herb vinegar. Make your own flavoured oils with fresh herbs and garlic in season and use these all year.
- Buy crackers with unsalted tops.
- Make salt free dill pickles when fresh dill and cucumbers are in season.
- Eat popcorn without salt instead of potato chips, pretzels and nuts.
- Rinse off some salt on canned tuna and salmon with water and drain.
- Substitute block cheese for processed cheese slices and spreads. Avoid feta and blue cheese.
- Use unsalted butter or margarine.
- Add seasonings to unsalted butter, margarine or oil and use on bread, vegetables, potatoes and salads.
- By saving salt, you may be able to treat yourself to a salty food you like once in a while. Talk to your dietitian about this.



What herbs and spices can I use to help improve the taste of my food?

- When you use herbs and spices, you may find many new flavours that you enjoy. You can use recipe books or try a cooking class to get started.
- When using herbs, try one new flavour at a time. With fresh herbs, use 3 times as much as dried herbs to get the same flavour.
- Add whole spices when you start cooking to help the full flavour come out. Add ground spices almost at the end.
- Add lemon juice and vinegar after cooking vegetables to shorten the cooking time and keep the colour.



Herb and Spice Guide

Type of Food	Herb or Spice
Beef	basil, bay leaf, chillies, coriander, garlic, marjoram, mustard, oregano, parsley, tarragon, thyme
Bread	anise, basil, caraway, cardamom, cumin, dill, lemon peel, orange peel, poppy seeds, saffron, sesame seeds
Cheese	caraway, celery seed, chervil, chives, curry, dill, garlic, horseradish, lemon peel, mustard, nutmeg, parsley, pepper, sage
Chicken	allspice, basil, bay leaf, cinnamon, curry, dill, garlic, ginger, poultry seasoning, saffron, sage, tarragon, thyme
Eggs	basil, chervil, chives, curry, dill, fennel, ginger, paprika, parsley, pepper, sage, tarragon
Fish	basil, bay leaf, chives, dill, fennel, garlic, ginger, mustard, parsley, tarragon
Fruit	allspice, anise, cardamom, cinnamon, cloves, coriander, ginger, mint, nutmeg
Lamb	basil, bay leaf, cinnamon, coriander, cumin, curry, dill, garlic, mint, parsley, rosemary, tarragon, thyme
Potatoes	basil, caraway, chives, dill, mace, paprika, parsley, rosemary, tarragon, thyme
Salads	basil, chives, dill, garlic, mint, oregano, parsley, tarragon
Salad dressings	basil, chives, dill, fennel, garlic, horseradish, mustard, oregano, paprika, parsley, saffron, tarragon
Soups	basil, bay leaf, chevril, chillies, chives, cumin, dill, fennel, garlic, parsley, pepper, rosemary, sage, savoury, thyme
Sweets	allspice, anise, cardamom, cinnamon, cloves, fennel, lemon peel, ginger, mace, nutmeg, mint, orange peel



Fluids

What is fluid?

Fluid is a liquid or a food that turns into a liquid at room temperature.

What are some examples of fluid?

Water, milk, juice, tea, coffee, alcohol, soup, and pop are all fluids.

Ice cubes, jello, ice cream, frozen yogurt and sherbert are also fluids as they melt into liquid at room temperature.



Should I limit the amount of fluid I eat and drink?

You do not have to limit fluids before you start dialysis treatment. Sometimes people with heart failure who get overloaded with fluid easily and become short of breath may have to limit the amount of fluid they have.

What about when I start dialysis?

When you are on dialysis, you may find your kidneys are not able to make your normal amount of urine. At this time, you will begin to control the amount of fluid you have. The amount you can have will be based on the amount of urine you make.

How much fluid can I safely drink in a day?

The less urine your kidneys make, the less fluid you can safely drink in a day. You are allowed _____ cups each day. 1 cup is equal to 240 ml or 8 ounces.

How do I know if I am drinking too much fluid?

The weight you gain between each dialysis treatment is called water weight. You should try not to gain more than 2 to 2.5 kilograms of water weight between each dialysis treatment.

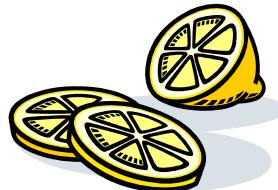


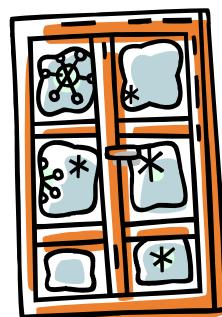
Gaining more than 3 kilograms of water weight between each dialysis treatment will weaken your heart muscles and make you short of breath.

Why am I thirsty?

Eating too many salty foods will make your thirsty.

What can I do if I am thirsty?

- Avoid using salt (sodium) as described on pages 16 to 19.
- Brush your teeth or rinse your mouth with chilled mouthwash.
- Swallow medications with soft foods such as applesauce and save fluid for when you are thirsty.
- Suck on a lemon wedge or use lemon in water. The sour taste will help quench thirst.An illustration of three lemon slices. One slice is whole, and two are cut in half, showing the seeds inside.
- Rinse your mouth with ice cold water. Do not swallow the water.
- Chew gum or suck on hard sour candies. This will help make saliva in your mouth.
- Freeze 1 cup of water to make 8 ice cubes. Cold things quench thirst better than room temperature.



Staying a Healthy Weight

Why worry about weight?

When you are on a special diet, it is important to get enough calories to stay at a healthy weight. Your body needs calories for energy just as a car needs gas to run. When you do not eat enough food, your body starts to use your own fat and muscle to give you energy. You then lose weight even when you do not want to.



How do I know how many calories I need to stay healthy?

The number of calories you need depends on your age, sex, weight and how active you are. Your dietitian will help you with the food choices you should make to get proper nutrition and calories.

What are good sources of calories?

Good sources of calories are:

- fats such as butter, non-hydrogenated margarine, oil, home made salad dressings, mayonnaise and non-dairy whipped toppings.
- sugar and items with sugar in them such as: jam, jelly, honey, sour hard candies, jelly beans, jujubes, marshmallows, crystal drinks, lemonade, cranberry juice and non-cola pop.



People with diabetes should avoid food and drinks that contain sugar.

What do I do if I am losing weight when I do not want to?

If you are at a healthy weight and would like to stay the same, you have to make a special effort to eat more calories.

Choose extra fat and items that contain sugar to get more calories.

Contact your dietitian to get more ideas to stop your weight loss.

You may need nutrition supplements added to your diet.



Bread, Grains and Other Starches

bread: white, light rye, oatmeal	1 slice
bread: pita	$\frac{1}{2}$
bagel	$\frac{1}{2}$
dinner roll	1 small
hamburg bun, hot dog roll, kaiser	$\frac{1}{2}$
melba toast	4
salt free crackers.....	8
Danish pastry	1
yeast doughnut	1
plain muffin.....	1
cooked macaroni, rice, noodles, spaghetti.....	$\frac{1}{2}$ cup
cream of wheat, oatmeal.....	$\frac{1}{2}$ cup
puffed wheat, puffed rice.....	1 cup
cornflakes, cheerios, rice crispies	$\frac{1}{2}$ cup
cake: plain, sponge, pound	1 slice
cookies: arrowroot, social tea	4
cookies: shortbread, sugar.....	2
popcorn	2 cups



Fats

unsalted margarine	1 teaspoon
unsalted butter	1 teaspoon
cooking oil	1 teaspoon
salad dressing.....	2 teaspoons
mayonnaise.....	2 teaspoons
sour cream	2 tablespoons
table cream	2 tablespoons
whipping cream.....	1 tablespoon
non dairy coffee whitener	2 tablespoons
cream cheese	1 tablespoon
home made gravy from drippings	1 tablespoon



Sugar and Sugar Containing Food

white sugar.....	1 tablespoon
honey	2 tablespoons
jam	2 tablespoons
jelly.....	2 tablespoons
cranberry juice	$\frac{3}{4}$ cup
fruit flavoured crystal drinks	1 cup
non cola pop	1 cup

Use these as extras to add calories to your diet . . .

jellybeans	9
hard candies	5
gum drops	5
marshmallows	5 large



Your Daily Choices

Food Group	Number of Choices
Meat and alternates	
Milk and milk products	
Bread, grains and other starches	
Vegetables	
Fruit and fruit juice	
Fats and oils	

Sample Menu Plan

Breakfast	Amount	Sample menu
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
mid morning snack		
Lunch		
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
mid afternoon snack		
Dinner		
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
evening snack		

Sample Menu Plan

Breakfast	Amount	Sample menu
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
mid morning snack		
Lunch		
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
mid afternoon snack		
Dinner		
meat and alternatives		
breads and starches		
milk and milk products		
fruits and vegetables		
fats and oils		
drinks		
evening snack		

Tips on Eating Out

Most people enjoy eating out or buying take-out food for many reasons. However, it can be a challenge when you have to follow a diet controlled in salt, potassium, phosphorus and fluid. Eating out will be easier if you understand your diet restrictions and know what to select. Here are some helpful hints.

- Know the food you can and cannot eat. This helps you make better choices.
- Choose the restaurant carefully. Some restaurants are happy to follow special diet requests while others are not.
- Watch your portion sizes. Restaurants tend to serve large portions. You can ask for 1/2 of a portion. You can also leave any extra portions on plate or share them.
- Order plain food that can be cooked to order such as pork chop, steak, fish and chicken. Ask for the inner cut of a slice of roast beef. Avoid ordering casserole type foods that are already mixed and cooked.
- Remove breaded layers from chicken, meat or fish before eating.
- Avoid ham, sausages and bacon.
- Order sauces and salad dressings on the side so you can use a smaller amount. Ask for a lemon slice for fish.
- Avoid dishes with dried beans, chickpeas, nuts and seeds.
- On pizza, use cheese, onions, green pepper and ground meat. Avoid pepperoni, anchovies, olives, bacon, sausage and double cheese.



- For Chinese and Asian food, ask if you can order without soy sauce or monosodium glutamate (MSG).
- At fast food places, avoid pickles, relish, ketchup and sauces.
- Avoid potato salad, salads with feta cheese and olives, bean salads. Choose coleslaw, pasta salad or gelatin salads.
- Try pasta or plain rice instead of baked potato, hash browns and french fries.
- If you are restricted in fluid, figure out how much of your fluid allowance you can use when out.
- Avoid milkshakes, high potassium juices, and colas. Choose clear pop, cranberry juice or lemonade. Order small size drinks.
- Avoid drinks mixed with tomato juice, orange juice and colas. Drink wine or beer in moderation. Avoid soups.
- Choose fruit, cake, sorbet, jello, fruit pies.
- Avoid high potassium fruit such as melons, bananas and kiwis.
- Avoid desserts with chocolate, nuts and dried fruit.

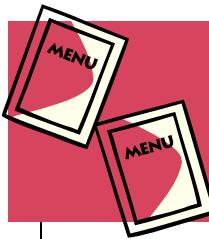


The next few pages contain samples of food you can eat and food to avoid.

Follow these guidelines and enjoy eating out:

Restaurant Type	Good Choice	Poor Choice
Fast Food	<ul style="list-style-type: none"> • small sandwich (hamburger, grilled chicken, roast beef, turkey, tuna salad, or chicken salad) with mayonnaise, lettuce, onion, and one or two slices of tomato • small onion rings • coleslaw • small tossed salad • non-cola soft drink • sorbet • vanilla cookies • fruit salad with allowed fruit 	<ul style="list-style-type: none"> • sandwich with cheese or bacon • hotdog • sausage • corned beef • salami • bologna • french fries • pickles, olives • potato chips • milkshake • ice cream • cola
Italian	<ul style="list-style-type: none"> • pasta with olive oil and garlic or pesto • pasta with tomato or cream sauce in limited amounts • plain Italian bread • 1 to 2 slices of medium sized pizza with chicken, hamburger, green peppers, onion, or pineapple • small garden salad with oil and vinegar dressing • Italian ice 	<ul style="list-style-type: none"> • pasta dishes with sausage, olives, proscuitto or extra cheese • clam sauce • anything parmigiana • pizza with sausage, olives, pepperoni, anchovies, feta cheese, or extra cheese

Restaurant Type	Good Choice	Poor Choice
Chinese	<ul style="list-style-type: none"> • chicken, tofu, beef or pork dish with broccoli, carrots, bean sprouts, snow peas, eggplant, green pepper, green onion, pineapple, or water chestnuts • steamed rice • one egg roll • fortune cookies • tea 	<ul style="list-style-type: none"> • soup • fried rice • peanuts, cashews, almonds • MSG • extra soy sauce • fish sauce
Roadhouse	<ul style="list-style-type: none"> • steak • grilled or broiled chicken, fish, pork chop, burger or seafood • roast beef • plain rice • pasta (see Italian section) • green beans, asparagus, carrots, zucchini, cauliflower, broccoli • white bread or roll • plain breadstick • coleslaw • salad with oil and vinegar dressing • pie with allowed fruit • vanilla cake 	<ul style="list-style-type: none"> • soup • casseroles or mixed dishes with cheese • heavily breaded or battered items • ham • corned beef • sausage • spinach • potatoes • baked beans • sauerkraut



Sample Restaurant Menus to Order

On the Go Menu

Coleslaw

Grilled Chicken on a Bun

Onion Rings

Lemon Lime Non-Cola Drink

Wild West Steakhouse Menu

Sirloin Steak

Steamed Rice

Green Beans

Roll

Ice Tea

Lemon Meringue Pie

Roman Paradise Menu

Tossed Salad with Oil
and Vinegar Dressing

Linguini with Chicken and Pesto

Fresh Italian Bread

Sparkling Water

Italian Ice Dessert

Chinese Palace Menu

Egg Roll

Pepper Beef with Broccoli
and Carrots

Steamed Rice

Tea

Fortune Cookies

When you eat away from home, you can always find food choices that are good for you and your diet.

Reading Labels

How do you know what is in a product?

All packaged food must list the ingredients used in the product. Ingredients are listed in the order of the amount used by weight. The first ingredient on the list means it is present in the largest amount based on weight. The rest of the ingredients follow from largest to smallest, based on weight.

Here is a sample of a list of ingredients on a label:

INGREDIENTS: CHICKEN BROTH, SALT, YEAST EXTRACT AND HYDROLIZED WHEAT GLUTEN, CHICKEN FLAVOUR, DEXTROSE, POTASSIUM CHLORIDE, DISODIUM GUANYLATE, DISODIUM IHOSINATE, SPICE, ASCORBIC ACID/CITRIC ACID BLEND.
INGRÉDIENTS: BOUILLON DE POULET, SEL, EXTRAIT DE LEVURE ET GLUTEN DE BLÉ, HYDROLYSE, SAVEUR DE POULET, DEXTROSE, CHLORURE DE POTASSIUM, GUANYLATE DISODIQUE, IHOSINATE DISODIQUE, EPICE, MELANGE D'ACIDE ASCORBIQUE ET D'ACIDE CITRIQUE.

Nutrition Facts Table

Nutrition information is given on the Nutrition Facts table. All food labels are required to have a Nutrition Facts table.

The % Daily Value tells you if there is a lot or a little of a nutrient in the specified amount of food. % Daily Values are based on recommendations for a healthy diet.

Nutrition Facts Valeur nutritive	
Per 125 mL (condensed) par 125 mL (condensée)	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 10	
Fat / Lipides 0 g	0 %
Saturated / saturés 0 g + Trans / trans 0 g	0 %
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 670 mg	28 %
Potassium / Potassium 300 mg	9 %
Carbohydrate / Glucides 1 g	0 %
Fibre / Fibres 0 g	0 %
Sugars / Sucres 1 g	
Protein / Protéines 2 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	2 %
Calcium / Calcium	0 %
Iron / Fer	0 %

% Daily Value

Remember that nutrients such as Sodium are listed for the size of the serving listed at the top of the Nutrition Facts table.

Picking the Best Product

In order to pick the best product for the nutrient you are interested in compare similar products and choose the one that has a lower number for the % Daily Value.

Here are 2 examples comparing the nutrient Sodium (Salt).

Nutrition Facts	
Valeur nutritive	
Per 125 mL (condensed) par 125 mL (condensée)	
<hr/>	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 10	
Fat / Lipides 0 g	0 %
Saturated / saturés 0 g + Trans / trans 0 g	0 %
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 670 mg	28 %
Potassium / Potassium 300 mg	9 %
Carbohydrate / Glucides 1 g	
Fibre / Fibres 0 g	0 %
Sugars / Sucres 1 g	
Protein / Protéines 2 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	2 %
Calcium / Calcium	0 %
Iron / Fer	0 %



Nutrition Facts	
Valeur nutritive	
Per 125 mL (condensed) par 125 mL (condensé)	
<hr/>	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 110	
Fat / Lipides 7 g	11 %
Saturated / saturés 1 g + Trans / trans 0 g	5 %
Cholesterol / Cholestérol 5 mg	
Sodium / Sodium 850 mg	35 %
Carbohydrate / Glucides 10 g	
Fibre / Fibres 1 g	4 %
Sugars / Sucres 1 g	
Protein / Protéines 2 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	0 %
Calcium / Calcium	2 %
Iron / Fer	8 %

Watch Serving Sizes

Pay attention to the serving sizes listed on labels. Here is an example:

- Remember that $\frac{1}{2}$ cup or 125 millilitres is 1 serving size of fruit juice. If you look at a bottle of fruit juice, you may see 10 ounces or 300 millilitres. This bottle contains 2.4 serving sizes. If you drink the whole bottle, you would be consuming 2.4 times the amount of allowed potassium.

Some Nutrients are not on the Label

Not all nutrients are listed on labels. Some are not required by Federal Government regulations. For example, the amount of potassium or phosphorus is not required to be listed in the product.

Here is a label that does not contain the amount of phosphorus in the product.

Here is a label that does not contain the amount of potassium or phosphorus in the product.

Nutrition Facts	
Valeur nutritive	
Per 125 mL (condensed) par 125 mL (condensée)	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 10	
Fat / Lipides 0 g	0 %
Saturated / saturés 0 g	0 %
+ Trans / trans 0 g	
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 670 mg	28 %
Potassium / Potassium 300 mg	9 %
Carbohydrate / Glucides 1 g	0 %
Fibre / Fibres 0 g	0 %
Sugars / Sucres 1 g	
Protein / Protéines 2 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	2 %
Calcium / Calcium	0 %
Iron / Fer	0 %

Nutrition Facts	
Valeur nutritive	
Per 1/2 cup (125 mL) / pour 1/2 tasse (125 mL)	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 25	
Fat / Lipides 0.5 g	1 %
Saturated / saturés 0 g	0 %
+ Trans / trans 0 g	
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 10 mg	0 %
Carbohydrate / Glucides 3 g	1 %
Fibre / Fibres 1 g	4 %
Sugars / Sucres 3 g	
Protein / Protéines 1 g	
Vitamin A / Vitamine A	10 %
Vitamin C / Vitamine C	45 %
Calcium / Calcium	2 %
Iron / Fer	2 %

Nutrition Claims

A nutrition claim is used to highlight a feature of the food.

For example, you may read a label with "25% LESS SALT":



Other examples of nutrition claims are:

- Bacon with 1/3 less salt
- Crackers with 50% less salt

Avoid Tricks on some Labels

Take time to read the labels and get to know the products. For example, a can of soup with a label claiming "25 % less salt" does not mean it is a low salt soup. It means that 125 ml or ½ cup of condensed soup has less salt than the same amount of regular soup.

For example, on this label, 28% of the % Daily Value or 670 mg is almost 1/3 of your daily need.

As this label shows, a salt reduced product can still be high in salt.

Salt reduced products are lower in salt **but may not be low in salt.**

Nutrition Facts Valeur nutritive	
Per 125 mL (condensed) par 125 mL (condensée)	
Amount Teneur	% Daily Value % valeur quotidienne
Calories / Calories 10	
Fat / Lipides 0 g	0 %
Saturated / saturés 0 g + Trans / trans 0 g	0 %
Cholesterol / Cholestérol 0 mg	
Sodium / Sodium 670 mg	28 %
Potassium / Potassium 300 mg	9 %
Carbohydrate / Glucides 1 g	0 %
Fibre / Fibres 0 g	0 %
Sugars / Sucres 1 g	
Protein / Protéines 2 g	
Vitamin A / Vitamine A	0 %
Vitamin C / Vitamine C	2 %
Calcium / Calcium	0 %
Iron / Fer	0 %

Save Labels and Talk to your Dietitian

A label may show that some nutrients are low but other nutrients may be too high for your needs.

Save the labels from the things you eat. Your dietitian can help you read and compare labels.

Your dietitian will help you understand how packaged food fits into your meal plan.

Cook Books

Ask your dietitian to show you some samples of cookbooks.



Low Sodium Savvy

A collection of helpful hints, seasoning ideas and recipes for sodium restricted diets

Available from:

Nutrition Service
Room 670 CSC
Royal Alexandra Hospital
10240 Kingsway Avenue
Edmonton, Alberta T5H 3V9

For information or to make sure the book is still for sale:

Carly Giesbrecht
Telephone: 780-735-4963
Cost: \$12.00
Make cheque payable to: Capital Health

Living Well on Dialysis

National Kidney Foundation Inc
Council on Renal Nutrition
30 East 33rd St.
New York, N.Y. 10016

