

## After Your Kidney Transplant



**Renal Transplant Unit and Clinic  
Kidney and Urinary Program  
St. Joseph's Hospital  
50 Charlton Avenue East  
Hamilton, Ontario**

**Contacts:**

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Produced by members of the Renal Transplant Team in the Kidney and Urinary Program in consultation with the Department of Nursing Practice and Education at St. Joseph’s Healthcare Hamilton, Hamilton, Ontario.

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## Telephone Numbers

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**St. Joseph's Hospital .....905-522-1155**

**Diabetes Educator.....ext. 34999**

**Nutrition Services.....ext. 33509**

**Peritoneal Dialysis Unit .....ext. 38275**

**Pharmacy:**

**Pharmacy Department .....ext. 33808**

**Retail Outpatient Pharmacy ..... 905-521-6170**

**Renal Transplant Clinic ..... ext. 33775**

- **Calls are taken 8:00 a.m. to 4:30 p.m. Mondays to Fridays**
- **Appointments are booked from 8:30 a.m. to 4:30 p.m. Mondays to Fridays**

**Renal Transplant Unit .....ext. 35270**

- **Call this number when the Renal Transplant Clinic is closed such as after hours, weekends and holidays.**

**Social Work Department.....ext. 33101**

- **You can also ask your nurse on the Renal Transplant Unit or in the Transplant Clinic to contact the social worker to come and see you**

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## Inside this Binder

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	<b>Page</b>
<b>Introduction</b>	<b>1</b>
<b>What to Watch for and Preventing Problems</b>	<b>3</b>
<b>Tests and Follow-up</b>	<b>15</b>
<b>Lifestyle</b>	<b>23</b>
<b>Keeping Personal Records</b>	<b>29</b>
<b>Medications</b>	<b>39</b>
<b>Medication Names and Use</b>	<b>47</b>
<b>Medications for Diabetes</b>	<b>87</b>
<b>Renal Transplant Clinic</b>	<b>117</b>
<b>Questions Often Asked</b>	<b>125</b>
<b>Staying Healthy</b>	<b>129</b>
<b>Record Sheets</b> <ul style="list-style-type: none"><li>• <b>Medication Record and Vital Signs</b></li><li>• <b>Blood Sugar Record</b></li><li>• <b>Intake and Output 24 Hour Record</b></li></ul>	<b>157</b>

## Introduction

A transplant is one way of treating chronic kidney failure. It is important to know all that you can about your new kidney transplant and the changes that may occur.



The information in this binder will help you find answers to some of your questions about caring for yourself at home. You can read this information and encourage your family, friends and care helpers to read it as well.

Members of the Transplant Team will answer your questions and help you.



# What to Watch for and Preventing Problems

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## What problems may I have after my transplant?

Some problems you may have are:

- delay in kidney function
- rejection
- infection
- blockage of urine flow
- other problems

It is important to be aware of the early signs of these problems. Each problem is described in this section.

Report any signs or changes to members of your Transplant Team.

### Delay in kidney function

After a kidney transplant, the kidney may not work perfectly right away. The kidney may be injured from moving it. This is called Acute Tubular Necrosis or ATN. The amount of urine the kidney makes is lower than expected or there is no urine at all. The creatinine in your blood rises slowly as well. ATN may last a few hours, days or weeks.

Ultrasound and renal scans are done to check the kidney. If ATN lasts longer than a few days, the doctor may do a biopsy to check the kidney cells.

You may need to have your medications changed.

Other treatments include dialysis or plasma exchange (apheresis). These are discussed with you if needed.



## Rejection

Rejection is your body's natural response to fight your new kidney. Since your new kidney is foreign to your immune system, your body tries to get rid of it.

Signs of rejection do not mean you have lost your kidney. It means you need a change in the amount or type of medication you are taking.

Rejection can be treated but it may damage your kidney. As a result, your kidney may not work as well. In some cases it may not last as long as it could.

## Will I reject my new kidney?

Rejection is the most common problem with transplanted kidneys. Rejection may occur at any time. It most often occurs during the first few weeks after having the kidney transplant. Rejection may also occur months or years later. Most patients have at least one episode of rejection.

**You need to call the Transplant Clinic or the Transplant Unit after clinic hours if you have any of these:**

- tenderness or pain in the area of your new kidney
- increase in your body temperature
- changes in your blood pressure
- increase in your weight
- decreased amount of urine output
- sudden swelling of your face, hands or feet
- lack of energy
- increased blood creatinine when your blood is tested



### **Remember:**

- **Rejection must be treated early to prevent damage to your new kidney.**
- **It is very important to get help.**

## What tests may be done to check my kidney?

There are different tests that may be done to check your kidney:

- blood test to check creatinine level
- renal ultrasound
- renal scan
- renal biopsy



These tests are described starting on page 15.

## What is the treatment?

Your transplant doctor will adjust or change your medications or treatment plan.

When a member of the health care team has a treatment to offer it is discussed with you.

After you understand the risks and benefits, you decide if you want to have the treatment.



## What happens if the treatment for rejection fails?

This means that the transplanted kidney has stopped working. You will need to begin dialysis treatments. Members of your Health Care Team will help you and your family through this difficult time. You will return to the care of the nephrologist you were seeing before your transplant.

## Can I have another transplant?

Yes. After a time, you may decide that you would like to be considered for another transplant. If you feel this way, talk with your nephrologist.

## Infection

Infection is common after any surgery. You are more at risk for infection because of the anti-rejection medications you take. These medications lower your body's ability to fight infection.

Infection may be caused by bacteria, Viruses and other organisms. To help prevent infection, you will be treated with antibiotic and antiviral medications before and after surgery. Since your body has a decreased ability to fight infection after a transplant you should avoid close contact with people who have infections as such as colds, cold sores and flu.

**You need to call the Transplant Clinic or the Transplant Unit after clinic hours if you have any of these:**



- fever – report a temperature over 37.5 °C
- urinary tract infection – report burning or pain when voiding, cloudy or foul smelling urine, a feeling of urgency or an increase in voiding frequency
- cough – report sore throat, a cough that makes sputum, shortness of breath or other cold like symptoms
- mouth changes – check for open sores, ulcers or white patches called thrush
- incision problems – report any new drainage, redness, swelling or pain that does not get better

You will need some tests done to find the source of infection. You may have blood tests, chest x-ray, urine test, sputum test or swabs done.

If you have an infection, you may need to take antibiotic medication to treat it.

If you are in contact with someone who has measles or chicken pox, call the Transplant Clinic. You may need to have blood tests and follow a treatment plan.

## Some medications that prevent or treat infections after a transplant

- A combination of sulphamethoxazole and trimethoprine is given to everyone for about 9 months to prevent a specific chest infection.
- Some patients are at risk to get **CytomegaloVirus** or **CMV**. This Virus can be harmful to people who are immunosuppressed. Valganciclovir and ganciclovir are medications used to prevent CMV.
- Cold sores are common. You may have them in your mouth, nose or on your lips. You may get sores on your body called shingles. Shingles can start as a painful, red rash. You may take a medication called acyclovir (e.g., valganciclovir or ganciclovir) to help. You may find that the sores are worse when you are sick or under stress. Do not touch the sores as they can spread.
- Medication is given if you have a positive Tuberculosis Skin Test or TST. The type of medication and length of treatment is explained when needed.
- Thrush in the mouth is also common. Thrush looks like small, white patches. Nystatin medication treats thrush.



Good mouth care helps prevent thrush. It is important to brush your teeth and tongue after meals, snacks and at bedtime.

Check inside your mouth everyday for white spots or sore areas. Remove dentures and partial plates to check gums. Clean them well and leave them out of your mouth when you have sores.



## Slowed or blocked urine flow

The flow of urine can be slowed down or blocked for many reasons such as:

- a ureter narrows by scar tissue or a small twist
- fluid collects around the kidney – called a lymphocele

To help prevent a block, the surgeon puts a small tube in the ureter called a stent during surgery. This helps keep the ureter open so urine will flow. The stent stays in for about 6 weeks after surgery. The stent is then taken out during a cystoscopy procedure.



If the flow of urine is slowed down or blocked, your new kidney may be damaged. One sign of a problem may be that the amount of urine you produce slows down or stops. This can happen at any time. You will have an ultrasound test done to check for a narrow or blocked ureter.

After a stent is taken out you will be advised to monitor the amount and colour of your urine. You need to get help if you have bleeding or not enough urine.

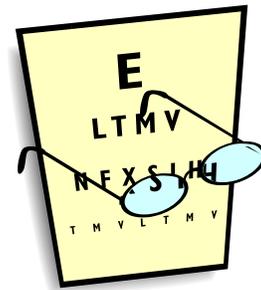
A lymphocele is caused by fluid collecting around the kidney. This can be large enough to put pressure on the kidney and stop the kidney from making urine. You may have swelling in the leg on the same side as your kidney transplant. Report any change in the amount of urine you make or swelling in your leg.

A lymphocele can go away over time or it may need to be fixed by surgery.

## Other problems

Some other problems that may be caused from medication include:

- increase risk for cancer
- diabetes
- hair, skin and gum changes
- vision changes
- foot changes



### Increase risk for cancer

You have an increased risk of getting cancer because of the effect the anti-rejection medications have on your immune system. You need to check your body closely and regularly.

Keep your Transplant Clinic appointments and have regular physical exams. Tell your doctor about any changes you find on your skin such as moles or lesions.



Report any changes in bowel habits such as alternating diarrhea and constipation or seeing blood in your stools.

Quit smoking and avoid second hand smoke. If you would like help quitting, talk to a member of your health care team.

**For more healthy hints, read the section on Staying Healthy starting on page 129.**

## Diabetes

Diabetes is when you have too much sugar in your blood.

When you have high blood sugar, you may:

- feel thirsty
- feel hungry
- feel tired
- urinate more often



## Some transplant anti-rejection medications cause diabetes

Some of the medications you take to prevent rejection of your kidney can increase your blood sugar. These medications include:

- prednisone
- cyclosporine
- tacrolimus
- sirolimus

You are at a higher risk of getting diabetes after a transplant if you:

- have a history of diabetes in your family
- are overweight

## Your diabetes care team

The diabetes nurse has special training in diabetes care and transplant. The diabetes nurse will help you learn about diabetes and how to manage your blood sugar.

The diabetes nurse will give you a blood sugar monitor and show you how to test your blood sugars at home.



## Other members of your diabetes care team

The transplant doctor and diabetes nurse may also refer you to other members of the team such as:

- dietitian
- social worker
- pharmacist
- diabetes specialist



## Your diabetes care plan

If you **do not** have diabetes before your transplant:

- your blood sugars may go up after the transplant
- you may need to take medications or insulin to help manage your blood sugars

If you **do** have diabetes before your transplant:

- you may need to add another medication to help manage your blood sugars
- you may need to take insulin to help manage your blood sugars
- you may need to increase the amount of insulin you take to help manage your blood sugars

## Checking blood sugars

You will need to check your blood sugars 4 times a day after your kidney transplant. Your diabetes nurse will review how to do this with you using the blood sugar monitor.

The usual times to check blood sugars are:

- before breakfast
- before lunch
- before supper
- before bedtime



You may also be asked to test your blood sugars 2 hours after a meal. This is to check how the medication or insulin is working.

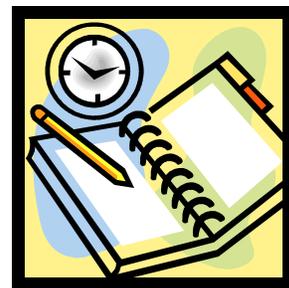
Your blood sugar is also routinely checked any time you have blood tests done at the Outpatient Lab.

## Target blood sugars

When you manage diabetes and check your blood sugar, your goal is to be in the target range. Target blood sugars are:

- 4.0 to 7.0 mmol/L before breakfast
- 5.0 to 10.0 mmol/L 2 hours after eating any meal

You will record your blood sugar results on the Blood Sugar Record forms starting on page 167 in this book. Please bring this record when you come to the Transplant Clinic. The diabetes nurse will look at your record and talk to your doctor or health care provider to decide how much medication or insulin you need.



## Diabetes and foot care

When you have diabetes, you need to check your feet every day for cuts or sores. If your feet are dry, apply lotion. If you notice any open areas on your feet, please contact your family doctor.

If you are not able to cut your own toenails safely, you will need to have them trimmed by a foot care nurse or chiropodist.

There is more information on foot and nail care in this book on page 139.

## Diabetes and eyes

High blood sugars can damage the tiny blood vessels in your eyes. You may not notice any changes to your vision. This is why you need an eye exam each year. There is more information about how to protect your eyes on page 136.





# Tests and Follow-up

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## What tests make sure the kidney is working?

There are 3 tests done to see how well the new kidney is doing:

- renal scan
- renal ultrasound
- closed renal biopsy

These tests provide the doctor with important information in caring for you and your kidney transplant. This section explains each test.

### Renal scan

You will have a scan of your new kidney after surgery. It is a painless test just like an x-ray. There is no preparation for this test and no after effects.

The procedure takes 30 to 40 minutes.

You will be taken on a stretcher to the Nuclear Medicine Department.

A nurse will stay with you during the scan.



A special dye will be injected through your IV or vein. The dye will outline your kidney and bladder. This outline will appear on a computer screen. The doctor will look at the picture to see how well your new kidney is working. If a problem develops later, another renal scan may be done. Your doctor will then compare the pictures.

You will have a renal scan the first day after surgery and when needed throughout your recovery.

## Renal ultrasound

This is a painless test that takes a picture of your new kidney using sound waves. It is done in the Ultrasound room of the Diagnostic Imaging Department. There is no preparation for this test and it takes about 30 minutes.

The picture shows the size and shape of your kidney. It also shows the blood and urine flow, if there is a fluid collection around the kidney, or if there is an obstruction.

## Closed renal biopsy

If your kidney is still not working well, you may need a closed renal biopsy. You sign a consent form for this test. The test takes about 5 minutes. The transplant doctor does this test in the Ultrasound Room of the Diagnostic Imaging Department.

For this test, you are on a stretcher. The skin on your abdomen is cleaned with an antiseptic. Local freezing is put into the skin over your new kidney. Your doctor then uses a biopsy needle to take a tissue sample from your kidney.

The ultrasound screen shows your doctor exactly where the needle is going. After the sample of your kidney has been taken, the needle will be removed. A bandage is put over the needle site. This test rarely causes pain.

A small sandbag is placed over the needle site for 2 to 4 hours. The weight of the sandbag applies pressure to reduce the risk of bleeding. After the biopsy, you go back to your room on a stretcher.

## After a closed renal biopsy

**You must rest in bed for 12 hours but you can get up to go to the bathroom.** Your nurse checks your blood pressure, breathing and heart rate often. Your urine is tested for blood. These help detect any sign of bleeding.

An ultrasound is done 4 hours after the biopsy to check for bleeding.



## Routine Tests

Some tests are done on a regular basis:

- Blood work and urine tests are done at each clinic visit.
- 24-hour urine tests are done about once a year.

## Women's Health

### Pap smear and breast self-exam

Women of all ages should have pap smears done each year. Pap smears help detect cervical cancer. You should make an appointment with your family doctor or health care provider for a pap smear along with your annual check-up.

Women of all ages should do a **Breast Self-Exam** or **BSE** each month to check for breast lumps or changes. It is best to do this 7 to 14 days after your menstrual cycle starts.

- If you do not remember to do BSE at this time, you should still do a breast self-exam when you remember.
- If you do not menstruate, you still need to do BSE.

Write BSE on your calendar or hang something in your shower to remind you. If you would like to learn how to do BSE, talk to your doctor or clinic nurse.

Many women may also have a regular breast x-ray called a mammogram. You and your doctor need to decide if you should have this done and how often. For example, women who have a family history, such as a mother or sister with breast cancer, have a mammogram each year.

After the age of 50, your doctor may send you to the Ontario Screening Program for Breast Cancer. You should talk to your family doctor about this at each annual check-up. You can also call this program yourself to make an appointment. Talk to your clinic nurse about this. You must be over 50 years old to go.



## Men's Health

### Prostate exam and TSE

All men over 50 should have annual prostate checks to screen for cancer. A special blood test, called a PSA should also be done. You should make an appointment with your family doctor or health care provider for a prostate check and annual check-up.

Men of all ages should do a **Testicular Self-Examination** or **TSE** each month to check for lumps and changes. Testicular cancer can be cured if it is found and treated early. Write TSE on your calendar or hang something in your shower to remind you.

**If you would like to learn how to do TSE, talk to your doctor or clinic nurse.**

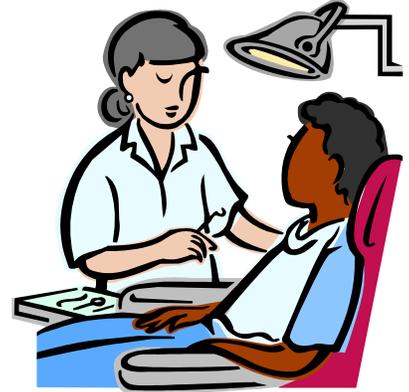
### Do I still see my family doctor or health care provider?

Your family doctor or health care provider is kept informed of your progress by mail. You must still see your family doctor or health care provider, for help with non-transplant problems you may have. If your family doctor or health care provider prescribes any medication, check with the Transplant Clinic before you take it.

## What about going to the dentist or oral surgeon?

You should visit your dentist for regular check-ups and oral surgeon when needed. How often you go depends on your oral hygiene and condition of your mouth, teeth, and gums.

When you see your dentist or oral surgeon, tell him or her that you have had a kidney transplant.



Some people may need to take antibiotic medication before oral surgery or cleaning. Your dental or oral surgeon will contact your transplant doctor to talk about your plan of care before care is given.



# Lifestyle

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## When can I drive?

You should wait at least 3 to 4 weeks before driving. You need to recover from your operation. Arrange rides for your first few Transplant Clinic visits.



## When can I return to work or school?

You should allow 2 to 3 months before returning to work or school. The time depends on your progress and the type of job you do.

The transplant doctor will help you with this decision.

## Can I exercise and play sports?

Exercise is a good idea and makes you feel better. You should be careful if you play contact sports, like football or hockey.

Your Transplant Team will be happy to answer any questions you may have. You can also read more about exercise on page 131.



## Can I travel?

You can travel. It is a good idea to talk it over with your transplant doctor well before you make travel plans. Be sure you have enough medications for the whole trip plus a few extra days supply in case of problems or a delay.



You can ask for a travel letter from the Transplant Clinic. This gives a brief medical history, lists your medications and includes a 24-hour telephone number to contact the transplant doctor. **Travel letters must be requested 2 weeks in advance.**



## Will I need to follow a special diet?

You need to eat a healthy, balanced diet after a transplant. This will help your body stay healthy and work properly. Your dietitian will talk to you and give you written handouts to help you with healthy eating, exercise and reaching your goal weight.

If you gain or lose too much weight, a dietitian may be able to help. In special cases, such as diabetes or if your cholesterol levels become a problem, you will still need to follow a special diet.



## When can I resume sexual activity?

You can resume sexual activity as soon as you and your partner feel comfortable. There is no special amount of time to wait after a kidney transplant. Sexual activity and intercourse will not harm the new kidney. It is safe and protected. If you have any questions or concerns, feel free to talk it over with any member of your transplant team.



### Women

After a kidney transplant, your menstrual period may start or come back. Many women are able to become pregnant. Women need to take birth control to prevent a pregnancy for at least 3 years. You can discuss the best method of birth control for you during your clinic visits.

### Men

All men should discuss family planning with their family doctors. It is generally safe for men to have children any time after a kidney transplant. Some medications may need to be changed first.

## Safer sex

Remember, there are only 2 sure ways of protecting yourself from sexual transmission of some diseases:

- abstain from sexual activity
- only have sex with one partner who you are sure is not infected

If you are not certain that you and your partner are free of any Virus, protect yourself. Either avoid all forms of intercourse or use a condom. A condom prevents contact with semen and vaginal secretions. When a condom is used the correct way, you have less chance of getting an infection. Condoms are not 100% safe.

After a kidney transplant, the chance of having a child increase. Both men and women are more fertile. Anyone who is sexually active must use birth control and practice safer sex.

## What about having a child?

After a kidney transplant, both men and women need to be careful about pregnancy. It is best to talk to your doctor and the nurses in the clinic about having children. Some medications used to control blood pressure have been shown to harm the fetus.

There is no evidence of increased birth defects while using immunosuppressive medications. However, some immunosuppressive medications have to be changed and your transplant doctor will discuss this with you.

As a woman, being pregnant can cause stress on your new kidney. Your medications may need to be changed during the time you are pregnant. Your obstetrician and the Transplant Team will watch your pregnancy carefully.



## **What can the Social Worker help you with?**

The Renal Transplant Unit has a social worker assigned to every transplant patient that comes to the unit. You can ask your nurse or doctor to get in touch with your social worker if you have not met him or her yet. You can also call the Social Work Department at ext. 33101 during your stay or as an outpatient.

## **Your Social Worker can help you and your family with many things:**

### **Transportation:**

- It is very important that you have transportation arranged for your follow-up appointments since you cannot drive yourself at first. This is most important when you live outside of the Hamilton area.
- Your social worker can help you plan for transportation by talking to you and your family and arranging help in your community
- You should also talk to your social worker about patient parking passes

### **Medication and Medical Coverage:**

- Your social worker can follow up with you about what kind of medical coverage you currently have
- Your social can help find funding such as the Trillium Drug Program

### **Support at Home:**

- Your social worker will follow up with you and your family about any services you may have had before you came to the hospital
- You and your social worker can talk about any supports services you think may be helpful when you go home. This may include personal support, physiotherapy or occupational therapy for equipment

### **Monitoring Equipment:**

- When you get home you need to monitor your blood pressure, temperature and weight
- Your social worker can help you get this equipment if needed



# Keeping Personal Records

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- Blood pressure
- Temperature
- Weight
- Intake and Output

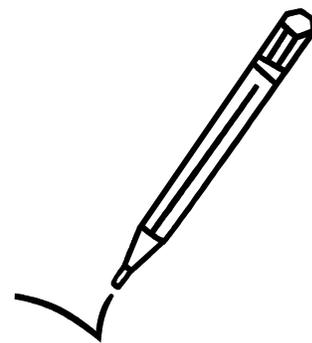




## Keeping Records

You will be expected to keep accurate records. These help you and your Transplant Team know how you are doing.

The nurses will show you how to use your personal records before you go home.



### Here is a guide to follow:

- Complete your record sheets every day.
- Check each medication carefully before you take it. Be sure you take the right amount of the right medication at the right time.
- Take your medication before you write it in your records.
- Write your blood pressure, temperature and weight on your record.
- Record your blood sugar results on the Blood Sugar Record if you are taking your blood sugars.
- Record your Intake and Output on the 24-Hour Record when asked to do so.
- Include comments in your records about how you are feeling.
- Be sure to bring a complete list of your medications and doses to each clinic visit.

## Vital Signs

Vital signs are health measurements. They include your blood pressure, body temperature, weight, the amount of fluid you drink and the amount of urine you pass.



By keeping a record of your vital signs, you can monitor your health. By looking at your record binder, the Transplant Team can see how well your new kidney is doing.

You will need the following equipment to monitor your vital signs:

- blood pressure kit
- centigrade thermometer
- weigh scale in pounds or kilograms

If you need any of this equipment, please talk to your social worker. Your social worker can help.

The next few pages describe the vital signs in detail.



## Blood Pressure

### What is blood pressure?

Your blood travels in blood vessels through. Blood vessels are like tubes, and come in different sizes. As your blood travels along, it pushes on the walls of the vessels. This is called blood pressure.



Your blood pressure has 2 parts: **systolic** and **diastolic**. When your heart pumps blood, it pushes it forward. This increases the pressure. The higher pressure is called **systolic**. Between pumps, the pressure on the tube walls decreases. This is called **diastolic**.

Blood pressure is written as:

**120**    **systolic** = when your heart contracts and pumps blood  
—        forward

**80**     **diastolic** = when your heart relaxes

This example blood pressure is 120 over 80. You will see members of the health care team write blood pressure like this: **120/80**

Your nurse will show you how to take and record your blood pressure.

## How often should I take my blood pressure?

You should take your blood pressure in the morning and at night. This includes a sitting, lying and standing blood pressure. Remember to write the results in your record binder.



You may need to take your blood pressure more often if your blood pressure medication is changed. If you are taking blood pressure medication, check your blood pressure at least 1 hour after taking your medication.

If you have a big difference between lying, sitting and standing blood pressure and you feel tired, you may be dehydrated and not drinking enough fluids. Increase the amount of fluid you are drinking.

## What is an average blood pressure?

An average blood pressure is usually about 120/80. Your blood pressure may vary from average, but may be normal for you.

## What if my blood pressure is too high or too low?

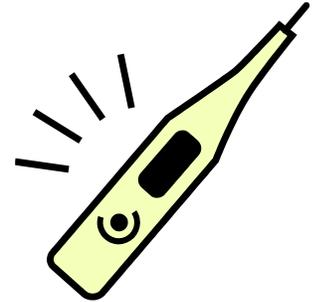
The Transplant Team will discuss this with you. Medication and diet changes can help control your blood pressure.

If you need medications, it is important to take them exactly as directed.

## Temperature

### What is my temperature?

Your temperature measures the amount of heat your body makes. When you have an infection, a Virus or rejection, your temperature may increase. A normal temperature taken orally is 37.0°C.



### When should I take my temperature?

You should take your temperature every morning and when you feel unwell. Take your temperature before having anything to eat or drink as this will affect the reading. This is to make sure the reading is accurate.

### How do I take my temperature?

Your nurse will show you how to take your temperature, read a thermometer and record it in your binder.

### What do I do if my temperature goes up?

If you develop a fever, it may be a sign of rejection or a viral illness. Call your Transplant Clinic or Transplant Unit if your temperature is higher than 37.5°C. You may need to see your transplant doctor. Blood tests will be done to check on your kidney.



**You must call in right away, as a delay could cause problems.**

## Weight

### When should I weigh myself?

You should weigh yourself every morning before breakfast and record this.

### What can affect my weight?

There may be a slow increase or decrease in your weight. This usually means a change in fat tissue or muscle mass. If this happens, you may need some changes in your diet.



### Remember . . .

- **Do not aim for your dry weight.**
- **You have a working kidney now.**

If your weight changes suddenly, you may have a problem with your kidney. Call your Transplant Clinic or Transplant Unit right away.

**You must report any weight gain over 1 kilogram in 24 hours.**



## Intake and Output

### How do I measure my intake and output?

You will need to measure the amount of fluid that you drink every day. This is called your intake. Foods such as ice-cream, soup, jello, coffee and ice, must be counted as fluid. Output is the amount of urine that you pass. You will need to measure your output every day. Any food that turns into liquid at room temperature should be counted as fluid intake.



Your nurse will show you how to measure and record your intake and output.

When you measure your intake and output, you do not aim for your dry weight. You have a working kidney now. Talk to your transplant doctor about your ideal weight.

### What other ways can fluid be lost?

Much of the fluid that leaves your body is in your urine. Fluid can also leave your body by diarrhea, vomiting and heavy sweating. These can affect your weight and blood pressure. They can affect the way your kidney works.

If you have any of these problems, let the Transplant Clinic or Transplant Unit know.

### How long do I have to measure my intake and output?

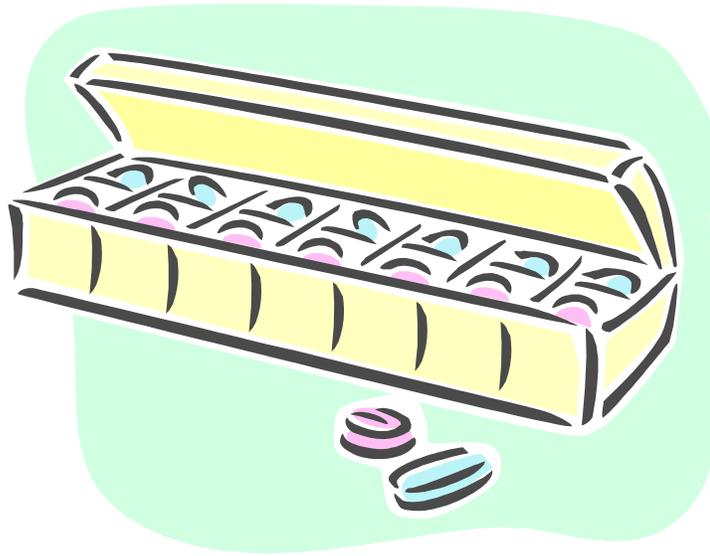
You need to measure your intake and output for 3 to 5 weeks after the transplant surgery. Your Transplant Clinic nurse will let you know when this is no longer needed.



# Medications

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## Why do I need to take medication?

Taking medication is an important part of your care at home. Medications play a key role in preventing rejection of your newly transplanted kidney. There are several medications you will need to take for the rest of your life. These are anti-rejection medications or immunosuppressants.

You will have some side effects from your medications. The side effects may be greater right after transplant surgery. This is the time your body is getting used to your new kidney and new, strong medications. Since each person is different, the Transplant Team will adjust your medications to help you.

### Important rules to follow:

- Take anti-rejection medications exactly as ordered by your doctor.
- Always have a supply of your medication on hand.
- Tell the Transplant Clinic about any new medication ordered by your family doctor or health care provider before you fill the prescription.
- Tell the Transplant Clinic about any over-the-counter medications before you take them. These may interact with your present medication and be dangerous to your health.



**Remember . . .**

**Anti-rejection medications put you at a higher risk for infections and cancer.**

**It is important to:**

- **monitor your body closely**
- **keep your appointments with the Transplant Clinic**
- **have regular physical exams with your family doctor or health care provider**

**How do I know if I need my medication changed?**

Your doctor will order a combination of medications right for you. The dose of each medication is adjusted after your transplant doctor reviews the blood test results. The nurse will inform you of any changes.

The Transplant Team will help you understand how all your medications work. The Transplant Clinic nurse will call you for any medication changes when you go home.

As new anti-rejection medications are discovered, your transplant doctor may change some of your medications. Your doctor will always talk to you about this before any changes are made.



**Remember . . .**

**Bring your anti-rejection medication with you to the hospital any time you are admitted.**

## Who pays for the medications?

You pay for your medications. Private insurance plans or drug cards may cover part or all of your medication costs.

Some of the anti-rejection medications are very expensive. If you do not have a Drug Plan, you should apply for the Trillium Drug Program. Contact your social worker for help.

## How do I get my medications?

Your transplant doctor will give you a prescription before you leave the hospital. You must get a written prescription for each refill.

It is important to get more medication before you run out.



It may take time to fill your prescription. For example, cyclosporine takes 1 week to fill the prescription. Other prescriptions may be mailed to you or available for pick-up in the clinic on request.

## What will happen if I stop taking any medications or miss doses?

You will damage or lose your new kidney. If this happens, you will need to begin dialysis treatments.

## What do I need to know about over-the-counter medications?

For your safety, there are 2 important things you need to remember after a kidney transplant:

- Do not fill any prescription without checking with Transplant Clinic staff first.
- Do not take any over-the-counter medications, natural remedies or herbal products before talking to the Transplant Clinic staff.



## When you have a cold

Before taking any medications, try:

- Using a cold mist vaporizer in the room where you stay the most and when sleeping.
- Drink plenty of fluids.
- Rest as much as you can.



You may use these products:

- Plain Tylenol<sup>®</sup> also called Acetaminophen
- Robitussin DM<sup>®</sup> or dextromethorphan cough syrup
- Otrivin<sup>®</sup> nasal spray

If you have symptoms longer than 3 days or a fever, call your family doctor or health care provider.

## When you have constipation

- You may take Senokot<sup>®</sup> (senna, sennosides) when needed.
- Do not use laxatives for a long time

Talk to your doctor or the clinic staff if you are constipated.  
There are many other things you can do to prevent constipation.

You can also talk to your dietitian to help manage constipation.





# Medication Names and Use

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This section describes many medications used after a kidney transplant. You may be put on any of these medications after your transplant.

Anti-rejection medications often cause mood changes, decrease sexual drive or impotence. You also have an increased risk for some types of cancer such as skin cancer and non-Hodgkin's lymphoma. Anti-rejection medication can also increase your blood sugar. Your blood sugar is tested when you have routine blood work. It is important to follow the advice of your health care team.

Please remember, as a patient, friend or family member, if you need help coping with any side effects, talk to a member of the health care team.

## **Remember . . .**

- **Keep all medication away from children.**
- **Wear medical alert identification.**





## Acyclovir

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### Other name for this medication

- Zovirax

### How this medication is used

This medication treats infections caused by the herpes family of Viruses such as shingles or cold sores. It may also help prevent viral infections.

### How to take this medication

Take this medication exactly as directed by your doctor. If you miss a dose of this medication, take the missed dose as soon as you remember. However, if it is almost time for your next dose, skip the missed dose and go back to your regular schedule. ✘ Do not take 2 doses at one time.

While taking this medication, you need to drink at least 3 litres of fluid each day unless your doctor tells you not to.

To avoid stomach upset, take this medication with food.

### While you are taking this medication you may notice

- stomach upset, nausea, vomiting, diarrhea
- headache, dizziness
- joint pain



## **Anti Lymphocyte Product**

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### **Other names for this medication**

- Thymoglobulin
- Antithymocyte
- ATG

### **How this medication is used**

This medication helps suppress the body's immune system which tries to reject the transplanted kidney. It is also used as a treatment for rejection.

### **How to take this medication**

This medication is given through a central venous catheter which is a tube put into a vein in your neck or chest. The central venous catheter stays in place over the time you get this medication.

You will stay in the hospital for 5 to 10 days when you are getting this medication. It is given over 4 to 20 hours each day. A blood test is done each day. Each dose is adjusted based on the results of the blood test.

### **While you are taking this medication you may notice**

- chills and fever
- increase risk of getting infections

Medications are given before and during the time you are getting this medication to help control chills and fever.

You are watched closely for any allergic reactions to this medication. If you have a reaction, the medication will be stopped and you will get medications to control the reaction.



## Azathioprine

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### Other name for this medication

- Imuran

### How this medication is used

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication. It lowers the number of white blood cells from forming. This helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

Take this medication exactly as directed by your doctor. Try not to miss any dose of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take the missed dose as soon as you remember. If it is almost time for your next dose, call the clinic for advice. ✘ Do not take 2 doses at one time.

To avoid stomach upset, take this medication with food or milk.

While you take this medication, you will have your blood tested often. Your doctor will adjust the dose to make sure the amount of blood cells you have are within safe limits.

Some medications change the effects of azathioprine in your body. Tell your transplant doctor all the medications you take including the medications you can buy in a drug store without a prescription. Your transplant doctor will then adjust your azathioprine dose.

### **While taking this medication you may notice**

- stomach upset, nausea, vomiting, anorexia, diarrhea
- bruising
- increased risk of getting infections

### **Contact your doctor if you notice**

- signs of rejection
- signs of infection
- unusual bleeding or bruising
- pain in your abdomen
- grey stools
- skin and the whites of your eyes become yellow

## **Basilixumab**

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### **Other names for this medication**

- Monoclonal antibody
- Simulect

### **How this medication is used**

This medication helps suppress the body's immune system which tries to reject the transplanted kidney. It is also used as a treatment for rejection.

### **How to take this medication**

This medication is given by your doctor through:

- an intravenous line quickly or
- mixed in intravenous fluid and given over 20 to 30 minutes

This medication is given as 2 doses. The second dose is given 4 days after the first dose.

### **While you are taking this medication you may notice**

- rare risk of an allergic reaction – let your nurse know if you have a rash, wheezing, or any trouble breathing

This medication does not increase your risk of any side effects from other transplant medications.



## Cyclosporine

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### Other name for this medication

- Neoral

### How this medication is used

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication. It helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

You must take this medication exactly as directed by your doctor. Try not to miss any doses of this medication.

Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take it as soon as you remember. If it is almost time for your next dose, call the clinic for advice.

✘ Do not take 2 doses at one time.

Cyclosporine may be given by intravenous when a person cannot have anything by mouth such as right after a kidney transplant.

Cyclosporine can be taken with food or water. Avoid grapefruit and grapefruit juice as this increases the amount of cyclosporine in your blood.

Take capsules right after you open the package. They have an unpleasant odour.

Keep this medication at room temperature, away from very hot or very cold places. Do not put this medication in the refrigerator or in direct sunlight.

While you are taking this medication, you will have regular blood tests. Your doctor adjusts the amount of medication based on the results of your blood tests. Changes in doses are common. Your clinic nurse will call you and tell you about any changes.

On days when you need to have blood tests done, take your morning dose of Cyclosporine as scheduled. Have your blood tests done 2 hours after your dose. Blood tests must be done before 10:00 a.m.

Some medications change the cyclosporine level in your body. Tell your transplant doctor all the medications you take including medications you can buy in a drug store without a prescription. Your transplant doctor will then adjust your cyclosporine dose.

### **While you are taking this medication you may notice**

- slight swelling of gums
- increased hair growth
- fine hand tremors
- headaches
- stomach upset, nausea, loss of appetite
- increase blood pressure
- increase risk of getting infections

### **Contact your doctor if you notice**

- signs of rejection
- signs of infection

## Dapsone

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### Other names for this medication

- Diaminodiphenylsulfone
- Dapsone

### How this medication is used

This medication is an antibiotic used to treat and prevent infection. After a kidney transplant, this medication is used to prevent pneumocystis pneumonia. It is used instead of Septra<sup>®</sup> in patients who have allergies to sulpha antibiotics or cannot tolerate Septra<sup>®</sup>.

### How to take this medication

Take this medication exactly as directed by your doctor once daily with food. If you miss a dose of this medication, take the missed dose as soon as you remember. However, if it is almost time for your next dose, skip the missed dose and start with the next dose. If you miss more than 2 tablets in a row, call the clinic for advice.

This medication is taken for 9 months after your kidney transplant.

### While you are taking this medication you may notice

- upset stomach, nausea or vomiting
- loss of appetite
- headache
- nervousness
- dizziness

### Contact your doctor if you notice

- signs of infection
- skin rash
- fever, sore throat
- muscle weakness
- yellowing of the skin or eyes



## Ganciclovir

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### **Other name for this medication**

- Ganciclovir (IV): Cytovene

### **How this medication is used**

This medication prevents or treats infections caused by Cytomegalovirus or CMV.

### **How to take this medication**

This medication is given directly into a vein in your arm once a day. You will need to be admitted to the hospital for this treatment. Your doctor may change you to oral Valganciclovir when appropriate. You can read more about Valganciclovir later in this section of the book.

While taking this medication, you will have your blood tested often. Your doctor may adjust the dose to make sure the amount of blood cells you have are within safe limits.

### **While you are taking this medication you may notice**

- stomach upset, nausea, diarrhea
- headache, confusion
- pain in your abdomen

### **Contact your doctor if you notice:**

- unusual bleeding or bruising
- signs of infection



## Intravenous Steroids

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### Other names for this medication

- Methylprednisone
- Solumedrol

### How this medication is used

This medication helps prevent and treat rejection of your new kidney. It is called an anti-rejection medication. It helps suppress the body's immune system which tries to reject the transplanted kidney.

This medication also replaces oral prednisone while fasting right after surgery.

### How to take this medication

Intravenous steroids are given through an intravenous tube into a vein in your arm. You may stay in the hospital for 3 to 5 days or have this treatment in the Outpatient Department. One dose is given each day.

### While you are taking this medication you may notice

- increased blood sugar
- mood swings
- night sweats
- sleep disturbances, nightmares
- signs of fluid retention such swelling of face, ankles, hands
- increased blood pressure
- increase risk of getting infections

These effects will decrease as the amount of medication you are given is lowered. You may need to take some other medications to help you manage these side effects.



## **Mycophenolate Mofetil**

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### **Other name for this medication**

- CellCept

### **How this medication is used**

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication. It stops white blood cells from forming. This helps suppress the body's immune system which tries to reject the transplanted kidney.

### **How to take this medication**

Take this medication exactly as directed by your doctor.

Try not to miss any dose of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take the missed dose as soon as you remember. If it is almost time for your next dose, call the clinic for advice.  
✘ Do not take 2 doses at one time.

Take this medication on an empty stomach. Space your doses about 12 hours apart.

While you take this medication, you will have your blood tested often. Your doctor will adjust the dose to make sure the amount of white blood cells you have are within safe limits.

Some medications such as Maalox<sup>®</sup>, Tums<sup>®</sup>, Questran<sup>®</sup> and calcium and iron products may decrease the amount of mycophenolate you get in your blood if taken at the same time. Separate the times you take these products by 2 hours.

Talk to your doctor or pharmacist before trying any new medications even the ones you can buy without a prescription.

### **While you are on this medication you may notice**

- stomach upset, abdominal cramping, nausea
- diarrhea
- increase risk in getting infections

### **Contact your doctor if you notice**

- persistent side effects

### **On the day of a Transplant Clinic visit**

- ✘ Do not take CellCept on the morning of your clinic visit.
- Blood tests must be done 12 after taking your last dose.
- Bring this medication with you.
- Take CellCept after the blood tests are done.

## **Mycophenolate Sodium**

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### **Other name for this medication**

- Myfortic

### **How this medication is used**

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication. It stops white blood cells from forming. This helps suppress the body's immune system which tries to reject the transplanted kidney.

### **How to take this medication**

Take this medication exactly as directed by your doctor.

Try not to miss any dose of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take the missed dose as soon as you remember. If it is almost time for your next dose, call the clinic for advice. ✘ Do not take 2 doses at one time.

Take this medication on an empty stomach. Space your doses about 12 hours apart.

While you take this medication, you will have your blood tested often. Your doctor will adjust the dose to make sure the amount of white blood cells you have are within safe limits.

Some medications such as Maalox<sup>®</sup>, Tums<sup>®</sup>, Questran<sup>®</sup> or other calcium products and iron may decrease the amount of mycophenolate you get in your blood if taken at the same time. Separate the times you take these products by 2 hours if you can.

Talk to your doctor or pharmacist before trying any new medications even the ones you can buy without a prescription.

### **While you are on this medication you may notice**

- stomach upset, abdominal cramping, nausea
- diarrhea
- increase risk in getting infections

### **Contact your doctor if you notice**

- side effects that persist

## Nystatin

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### Other names for this medication

- Nilstat
- Mycostatin

### How this medication is used

This medication helps prevent and treat thrush which is a yeast infection in the mouth. Thrush appears like white spots or patches on the tongue, gums and inside cheeks.

### How to take this medication

Take this medication exactly as directed by your doctor. It is best to take this medication after meals and at bedtime.

Shake the bottle of liquid well before each dose. Measure the amount into a small medicine cup. Swish the medication around in your mouth for as long as you can, then gargle before swallowing it.

✘ Do not eat or drink anything for 20 minutes after taking this medication. This gives the medication time to work inside your mouth.

### While you are on this medication you may notice

- stomach upset
- nausea, vomiting, diarrhea

### Contact your doctor if you have

- no improvement in 2 days



## Prednisone

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### Other name for this medication

- Deltasone

### How this medication works

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication. It helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

You must take this medication exactly as directed by your doctor. Try not to miss any dose of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take it as soon as you remember.

If it is almost time for your next dose, call the clinic for advice.

✘ Do not take 2 doses at one time.

To avoid stomach upset, take prednisone with food or milk.

Stopping this medication suddenly will make you very ill.

✘ Do not stop taking this medication without talking to your clinic nurse or doctor first.

### While on this medication you may notice

- stomach upset, irritation
- puffy face
- mood changes
- nightmares, night sweats, trouble sleeping

## **While on this medication you may notice**

- increased appetite causing weight gain if you eat too much
- skin changes such as bruising, acne
- increased hair growth
- blurry vision
- increase in blood sugar
- muscle weakness
- mild joint pain
- osteoporosis
- increased risk of getting infections
- signs of holding water such as puffy feet and hands called edema

Most side effects decrease over time. As your dose decreases, your symptoms should also decrease.

## **Longer term effects**

- osteoporosis
- cataracts, glaucoma
- thinning of skin

## **Contact your doctor if you notice**

- black tarry stools
- pain in your abdomen
- any effects that bother you a lot

## Rituximab

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### Other names for this medication

- Monoclonal antibody
- Rituxan

### How this medication is used

This medication helps suppress the body's immune system which tries to reject the transplanted kidney. It is used to treat certain types of rejection.

This medication may be given weeks before a planned transplant to reduce the chance of rejection when a kidney is transplanted from somebody with a different blood type.

### How to take this medication

This medication is given into a vein by an intravenous for hours. Your nurse gives this medication and monitors the intravenous. The length of time needed to get the medication depends on how well you tolerate it. If side effects are noticed, the medication is given more slowly. Most people only need 1 dose of this medication.

### While you are taking this medication you may notice

- fever and chills
- flushing
- upset stomach, nausea or vomiting
- rash, hives, itchiness
- runny nose
- headache
- tiredness
- low blood pressure or dizziness
- rare risk of more severe reactions such as trouble breathing or swelling

**Let your nurse know right away if you have any of these feelings.**

## **While you are taking this medication you may notice (continued)**

Reactions usually occur within the first 30 minutes to 2 hours of the starting the intravenous.

To help reduce side effects the nurse will give you medications such as acetaminophen (Tylenol) and an antihistamine such as Diphenhydramine or Benadryl before the intravenous starts. Your nurse will check if you have any allergies to these types of medications first.

This medication may increase your risk of infection by lowering your blood cell counts. This risk is highest about 6 to 8 weeks after the last dose.

## Sirolimus

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### Other names for this medication

- Rapamune
- Rapamycin

### How this medication is used

This medication helps prevent rejection of your new kidney. It is called an anti-rejection medication or immunosuppressant. It helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

This medication should be taken once a day. You must take this medication exactly as directed by your doctor.

You can take sirolimus with or without food.

- If you take sirolimus with food, do this all of the time.
- If you take sirolimus without food, do this all of the time.
- **It is important to do the same thing all of the time.**

### When you miss a dose

Try not to miss a dose of this medication. Missing a dose can harm your new kidney. If you miss a dose of this medication, take it as soon as you remember. If it is almost time for your next dose, call the Transplant Clinic for advice. **✘ Do not take 2 doses at one time.**

### When you take other medications

Some medications change the amount of sirolimus in your body. Tell the transplant doctor all the medications you take including over-the-counter medications and herbal or natural products. You may need your dose of sirolimus changed.

If you take cyclosporine medication you must take sirolimus at least 4 hours after taking your dose of cyclosporine. Sirolimus can be taken at the same time as tacrolimus.

## **Sirolimus continued . . .**

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### **When you have blood tests**

While you take this medication you will have regular blood tests. Your doctor will adjust the dose of medication based on the results of each test.

### **On the days of your Transplant Clinic visits**

- ✘ Do not take Sirolimus on the morning of your clinic visit.
- Blood tests must be done 24 hours after taking your last dose.
- Bring this medication with you.
- Take the Sirolimus after the blood tests are done.
- It is common to have a change in dose after blood tests.
- The Transplant Clinic nurse will tell you about any changes.

### **While you are taking this medication you may notice**

- skin rash
- high blood pressure
- diarrhea
- infections
- bone pain
- excessive hair growth
- swelling in hands and feet
- rapid heart rate

**Sirolimus continued on next page➔**

**While you are taking this medication you may develop**

- high cholesterol
- high triglycerides
- high blood sugar
- decreased platelets
- decreased hemoglobin

**Your doctor watches your blood test results closely.**

**Contact your doctor if you notice**

- signs of rejection
- signs of infection



## **Sulphamethoxazole / Trimethoprim**

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### **Other names for this medication**

- Co-trimoxazole
- Septra
- Bactrim
- Novo-trimel
- Apo-Sulfatrim

### **How this medication is used**

This medication is an antibiotic used to treat and prevent infection. After a kidney transplant this medication is used to prevent pneumocystis pneumonia.

### **How to take this medication**

Take this medication exactly as directed by your doctor.

If you miss a dose of this medication, take the missed dose as soon as you remember. However, if it is almost time for your next dose, call the clinic for advice. ✘ Do not take 2 doses at one time.

You will take this medication for 9 months after your kidney transplant.

Take this medication with a full glass of water. You will need to drink several additional glasses of water everyday unless otherwise directed by your doctor.

### **While taking this medication you may notice**

- upset stomach
- itching
- skin rash
- increased sensitivity to sunlight
- unusual bleeding or bruising

A skin rash may be an allergic reaction to the sulfa part of this medication. If this occurs, the medication will be stopped and another medication will be started.

Avoid direct sunlight. While in the sun, wear sunscreen, sunglasses with UV protection, a hat and clothing that covers your skin. Go to page 135 for more sun protection ideas.

### **Contact your doctor if you notice**

- signs of infection
- signs of allergy like skin rash

## Tacrolimus Extended-release

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### Other names for this medication

- Advagraf
- FK - 506

### How this medication works

This medication helps to prevent rejection of your new kidney. It is called an anti-rejection medication. It helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

Take this medication exactly as directed by your doctor.

Avoid grapefruit and grapefruit juice as this increases the amount of tacrolimus in your blood.

This medication should be taken once daily in the morning (every 24 hours).

Tacrolimus can be taken with or without food:

- If you take tacrolimus with food, do this all of the time.
- If you take tacrolimus without food, do this all of the time.
- **It is important to do the same thing all of the time.**

Try not to miss any doses of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take it as soon as you remember. If it is almost time for your next dose, call the clinic for advice. ✘ Do not take 2 doses at one time.

Keep this medication at room temperature away from very hot or very cold places. ✘ Do not put this medication in the refrigerator or in direct sunlight.

While you are taking this medication, you will have regular blood tests. Your doctor adjusts the amount of medication based on the results of your blood tests.

Ideally, your morning blood levels should be drawn 24 hours after your last dose the morning before. On the days you come for blood tests, do not take your morning dose until after your blood tests have been taken.

Changes in doses are common. Your clinic nurse will call you and tell you any changes.

Some medications change the tacrolimus level in your body. Tell your transplant doctor all the medications you take including the over-the-counter ones. Your transplant doctor will then adjust your tacrolimus dose.

**Make sure you do not run out of tacrolimus.**

### **While you are taking this medication you may notice**

- mood changes
- sleep disorders
- fine hand tremors
- headaches
- stomach upset, nausea, diarrhea
- increased blood pressure
- increased blood sugar
- pruritis or itching
- increased risk of getting infections

### **Contact your doctor if you notice**

- signs of rejection
- signs of infection

### **On the morning of a Transplant Clinic visit**

- ✘ Do not take Advagraf on the morning of your clinic visit.
- Blood tests must be done 12 hours after taking your last dose.
- Bring this medication with you.
- Take Advagraf after the blood tests are done.

## Tacrolimus Immediate-release

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### Other names for this medication

- Prograf
- FK - 506

### How this medication works

This medication helps to prevent rejection of your new kidney. It is called an anti-rejection medication. It helps suppress the body's immune system which tries to reject the transplanted kidney.

### How to take this medication

Take this medication exactly as directed by your doctor.

Avoid grapefruit and grapefruit juice as this increases the amount of tacrolimus in your blood.

This medication should be taken every 12 hours.

Tacrolimus can be taken with or without food:

- If you take tacrolimus with food, do this all of the time.
- If you take tacrolimus without food, do this all of the time.
- **It is important to do the same thing all of the time.**

Try not to miss any doses of this medication. Missing a dose can harm your new kidney. However, if you miss a dose of this medication, take it as soon as you remember. If it is almost time for your next dose, call the clinic for advice. ✘ Do not take 2 doses at one time.

Keep this medication at room temperature away from very hot or very cold places. ✘ Do not put this medication in the refrigerator or in direct sunlight.

While you are taking this medication, you will have regular blood tests. Your doctor adjusts the amount of medication based on the results of your blood tests.

Some medications change the tacrolimus level in your body. Tell your transplant doctor all the medications you take including the over-the-counter ones. Your transplant doctor will then adjust your tacrolimus dose.

Make sure you do not run out of tacrolimus.

### **On the morning of a Transplant Clinic visit**

- ✘ Do not take Prograf on the morning of your clinic visit.
- Blood tests must be done 12 hours after taking your last dose.
- Bring this medication with you.
- Take Prograf after the blood tests are done.
- Changes in doses are common.
- Your clinic nurse will call you and tell you any changes.

### **While you are taking this medication you may notice**

- mood changes
- sleep disorders
- fine hand tremors
- headaches
- stomach upset, nausea, diarrhea
- increased blood pressure
- increased blood sugar
- puritis or itching
- increased risk of getting infections

### **Contact your doctor if you notice**

- signs of rejection
- signs of infection

## Valganciclovir

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### Other name for this medication

- Valcyte

### How this medication is used

This medication is used to prevent or treat infections caused by **Cytomegalovirus** or **CMV**.

### How to take this medication

This medication is taken by mouth. Take this medication exactly as directed by your doctor. If you miss a dose of this medication, take the missed dose as soon as you remember. However, if it is almost time for your next dose, skip the missed dose and go back to your regular schedule. ✘ Do not take 2 doses at one time.

You will take this medication for 6 months after surgery or as directed by your doctor.

While taking this medication, you will have your blood tested often. Your doctor may adjust the dose to make sure the number of blood cells you have are within safe limits.

Take this medication with food. Valganciclovir is absorbed better when taken with food.

### While you are taking this medication you may notice

- stomach upset, nausea, diarrhea
- headache, confusion
- pain in your abdomen

**Contact your doctor if you notice:**

- unusual bleeding or bruising
- signs of infection

# Medications for Diabetes

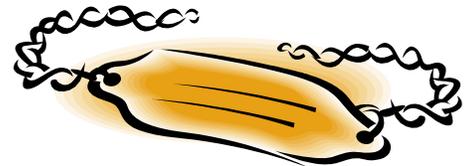
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## Remember:

### Stay Safe

- When you have diabetes, wear or carry medical alert identification
- Blood sugar must be over 5.0 mmol/L for you to drive a personal vehicle
- Blood sugar must be over 6.0 mmol/L for you to drive a commercial vehicle





## Glyburide

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### Other name for this medication

- Diabeta

### How this medication is used

This medication is used to treat diabetes. It lowers the amount of sugar in the blood by helping the pancreas release more insulin.

**This medication is not insulin.**

### How to take this medication

Take this medication exactly as directed by your doctor or diabetes care provider. It is best to eat at the same times each day and not to skip meals. It is best to take this medication ½ hour to 20 minutes before a meal.

If you miss a dose of medication and it almost time for your next dose, skip the missed dose and go back to your regular time.

✘ Do not take 2 doses at one time. ✘ Do not take a missed dose of your medication – just go back to your regular time for the next dose.

This medication works better when you follow a diet and exercise program.

Your diabetes educator may ask you to test your blood sugar while you take this medication.

Check with your doctor or pharmacist before you take any over-the-counter medications.

## **While you are taking this medication you may notice**

- upset stomach, nausea and vomiting
- diarrhea
- low blood sugar
- weight gain

If any of these problems do not go away, call your doctor.

## **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

## **When your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away. Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets – read the package to know how many total 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.

## Glyburide continued . . .

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3. If your blood sugar is still below 4.0 mmol/L treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.
5. If your next meal or snack is more than 1 hour away, you need to eat ½ sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### When you are sick

During a visit with your diabetes care provider it is important to learn how to look after yourself when you are sick. When you are sick, your blood sugar can change a lot and quickly. Follow the sick day plan you get from your diabetes care provider. **Here are some general guidelines:**

- Blood sugars tend to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- When you are sick and not able to eat, check your blood sugar. If it is less than 4.0 mmol/L, do not take glyburide.
- If you are able to keep sugary fluids down, you need to take glyburide. Examples of sugary fluids are:
  - 80 ml or 1/3 cup gingerale, apple juice or Kool-Aid<sup>®</sup>
  - ½ popsicle
  - 60 ml or ¼ cup Jello<sup>®</sup>
- You should have sugary fluid every hour that you are awake.



## Pioglitazone

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### Other name for this medication

- Actos

### How this medication is used

This medication is used to treat diabetes. It lowers the amount of sugar in the blood by helping your body use your own insulin better. **This medication is not insulin.**

It takes 3 to 12 weeks for this medication to start to work.

If you are pregnant or thinking about getting pregnant, talk to your doctor about the risks and benefits before taking this medication.

### How to take this medication

Take this medication exactly as directed by your doctor or diabetes care provider. This medication may be taken with or without food.

If you miss a dose of this medication, take it as soon as you remember. However, if it is almost time for your next dose, skip the missed dose and go back to your regular time.

✘ Do not take 2 doses at one time.

You need to have blood tests to check your liver while taking this medication.

This medication works better when you follow a diet and exercise program. You will need to test your blood sugar while you are taking this medication.

Check with your doctor or pharmacist before you take over-the-counter medications.

## **While you are taking this medication you may notice**

- muscle aches
- diarrhea
- headache
- low blood sugar

## **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

## **When your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away.  
Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets – read the package to know how many total 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.

## Pioglitazone continued . . .

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3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.
5. If your next meal or snack is more than 1 hour away, you need to eat ½ sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### When you are sick

During a visit with your diabetes care provider it is important to learn how to look after yourself when you are sick. When you are sick, your blood sugar can change a lot and quickly.

Follow the sick day plan you get from your diabetes care provider.

### Here are some general guidelines:

- Blood sugars tend to go up on sick days. You need to keep taking pioglitazone. Test your blood sugar every 4 hours while you are feeling sick.
- When your blood sugar is less than 4.0 mmol/L you need to have sugary fluids to maintain your blood sugar in your normal range. Examples of sugary fluids are:
  - 80 ml or 1/3 cup gingerale, apple juice or Kool-Aid®
  - ½ popsicle
  - 60 ml or ¼ cup jello®
- You should have sugary fluid every hour that you are awake.

**Contact your doctor or diabetes care provider right away if you notice**

- changes in vision
- shortness of breath
- dark urine
- slow heartbeat
- yellow eyes or skin
- swelling of the hands, legs or feet
- rapid weight gain that you cannot explain

## Repaglinide

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### Other name for this medication

- Gluconorm

### How this medication is used

This medication is used to treat diabetes. It helps your pancreas release more insulin. It works with each meal to lower blood sugar. **This medication is not insulin.**

### How to take this medication

Take this medication exactly as directed by your doctor or diabetes care provider.

You must take this medication with your meal. You may take it 15 minutes before a meal to 15 minutes after a meal. Many people take it with the first bite of the meal. If you take this medication you must eat. **If you do not eat, do not take repaglinide.**

### While you are taking this medication you may notice:

- constipation or diarrhea
- cough, sore throat, sneezing, stuffy nose
- low blood sugar

## Some signs of low blood sugar are:

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

## When your blood sugar is below 4.0 mmol/L

1. Take 15 grams of a fast acting carbohydrate right away.  
Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets – read the package to know how many total 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.
3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast carbohydrates listed above.
4. Repeat these steps until your blood sugar is in your target level.
5. If your next meal or snack is more than 1 hour away, you need to eat  $\frac{1}{2}$  sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

## Repaglinide continued . . .

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You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### When you are sick

During a visit with your diabetes care provider it is important to learn how to look after yourself when you are sick. When you are sick, your blood sugar can change a lot and quickly. Follow the sick day plan you get from your diabetes care provider. **Here are some general guidelines:**

- Blood sugars tend to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- When you are sick and not able to eat, check your blood sugar. If it is less than 4.0 mmol/L, do not take repaglinide.
- If you are able to keep sugary fluids down, you need to take repaglinide. Examples of sugary fluids are:
  - 80 ml or 1/3 cup gingerale, apple juice or Kool-Aid<sup>®</sup>
  - ½ popsicle
  - 60 ml or ¼ cup jello<sup>®</sup>
- You should have sugary fluid every hour that you are awake.

### Contact your doctor or diabetes care provider if you notice:

- continued low blood sugars
- continued diarrhea
- itchy skin rash
- dark urine
- unexplained sore throat or fever



## Rapid Acting Insulin

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### **Names for this kind of insulin:**

- Insulin Lispro – Humalog
- Insulin Aspart – Novorapid

### **How fast and long does this insulin work to control blood sugar?**

- Starts to work in 10 to 15 minutes .
- Maximum effect between 60 to 90 minutes.
- Lasts 4 to 5 hours.

### **How to take this insulin**

Follow your doctor's or diabetes care provider's advice on when to take this insulin. It is best to inject rapid acting insulin right before you eat a meal. You can inject up to 15 minutes after eating a meal.

Your diabetes care provider or pharmacist will show you how and where to inject this type of insulin.

### **How long is insulin safe to use?**

- Always check the expiry date on the package before using. Never use expired insulin.
- After opening you must use it in 28 days or throw it out.
- **Store opened insulin at room temperature.**
- **Store unopened insulin in the fridge.**
- Never keep insulin close to a stove, microwave or in a vehicle where it may be too hot or too cold. This destroys insulin.

## **While you are taking this medication you may notice**

- low blood sugar

## **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

## **If your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away. Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets. Read the package to know how many you need to chew to make 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.
3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.

## Rapid Acting Insulin continued . . .

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5. If your next meal or snack is more than 1 hour away, you need to eat  $\frac{1}{2}$  sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### When you are sick

During a visit with your diabetes care provider, it is important to learn how to look after yourself when you are sick. When you are sick your blood sugar can change a lot and quickly. Follow the sick day plan you get from your diabetes care provider.

### Here are some general guidelines:

- Blood sugar tends to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- If you are sick, not eating and your blood sugar is less than 4.0 mmol/L, do not take rapid acting insulin.
- If you are able to keep sugary fluids down, drink some sugary fluid every hour that you are awake. Take rapid acting insulin according to your blood sugar tests. Your doctor or diabetes care provider will tell you how to do this.

Examples of sugary fluids are:

- 80 ml or  $\frac{1}{2}$  cup gingerale, apple juice or Kool-Aid
- $\frac{1}{2}$  popsicle
- 60 ml or  $\frac{1}{2}$  cup jello

**Contact your doctor or diabetes care provider right away:**

- if you have continued low blood sugars
- you vomit more than 2 times in 12 hours

## **Fast Acting Insulin**

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### **Names for this kind of insulin:**

- Humulin-R
- Novolin<sup>®</sup>ge Toronto

### **How fast and long does this insulin work to control blood sugar?**

- Starts to work in 30 minutes to 1 hour.
- Maximum effect between 2 to 4 hours.
- Lasts 5 to 8 hours.

### **How to take this insulin**

Follow your doctor's or diabetes care provider's advice on when to take this insulin. It is best to inject fast acting insulin 30 minutes before you eat a meal. You can inject up to 15 minutes after eating a meal.

Your diabetes care provider or pharmacist will show you how and where to inject this type of insulin.

### **How long is insulin safe to use?**

- Always check the expiry date on the package before using. Never use expired insulin.
- After opening you must use it in 28 days or throw it out.
- **Store opened insulin at room temperature.**
- **Store unopened insulin in the fridge.**
- Never keep insulin close to a stove, microwave or in a vehicle where it may be too hot or too cold. This destroys insulin.

## **While you are taking this medication you may notice**

- low blood sugar

## **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

## **If your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away.  
Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets. Read the package to know how many you need to chew to make 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.
3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.
5. If your next meal or snack is more than 1 hour away, you need to eat  $\frac{1}{2}$  sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

## **Fast Acting Insulin continued . . .**

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You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### **When you are sick**

During a visit with your diabetes care provider, it is important to learn how to look after yourself when you are sick. When you are sick your blood sugar can change a lot and quickly. Follow the sick day plan you get from your diabetes care provider.

### **Here are some general guidelines:**

- Blood sugar tends to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- If you are sick, not eating and your blood sugar is less than 4.0 mmol/L, do not take fast acting insulin.
- If you are able to keep sugary fluids down, drink some sugary fluid every hour that you are awake. Take fast acting insulin according to your blood sugar tests.  
Your doctor or diabetes care provider will tell you how to do this.

Examples of sugary fluids are:

- 80 ml or ½ cup gingerale, apple juice or Kool-Aid
- ½ popsicle
- 60 ml or ½ cup jello

### **Contact your doctor or diabetes care provider right away:**

- if you have continued low blood sugars
- you vomit more than 2 times in 12 hours



## Intermediate Acting Insulin

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### Names for this kind of insulin are

- Humulin-N
- Novolin<sup>®</sup>ge NPH

### How fast and long does this insulin work to control blood sugar?

- Starts to work within 1 to 3 hours.
- Maximum effect between 5 to 8 hours.
- Lasts up to 18 hours.

### How to take this insulin

Follow your doctor's or diabetes care provider's advice on when to take this insulin. It is usually taken once a day at bedtime. If you use this insulin 2 times a day, it is usually taken with breakfast and before bedtime. Give at the same time each day.

If you forget to take this insulin, you can still take it up to 1 hour after the scheduled time.

Your diabetes care provider or pharmacist will show you how and where to inject this type of insulin.

### How long is insulin safe to use?

- Always check the expiry date on the package before using. Never use expired insulin.
- After opening you must use it in 28 days or throw it out.
- **Store opened insulin at room temperature.**
- **Store unopened insulin in the fridge.**
- Never keep insulin close to a stove, microwave or in a vehicle where it may be too hot or too cold. This destroys insulin.

## **While you are taking this medication you may notice**

- low blood sugar

## **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

## **If your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away. Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets. Read the package to know how many you need to chew to make 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.
3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.

## Intermediate Acting Insulin continued

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5. If your next meal or snack is more than 1 hour away, you need to eat  $\frac{1}{2}$  sandwich or 6 crackers with cheese to keep your blood sugar more than 4.0 mmol/L.

You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### When you are sick

During a visit with your diabetes care provider, it is important to learn how to look after yourself when you are sick. When you are sick your blood sugar can change a lot and quickly.

Follow the sick day plan you get from your diabetes care provider.

### Here are some general guidelines:

- Blood sugar tends to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- If you are sick, not eating and your blood sugar is less than 4.0 mmol/L, do not take intermediate acting insulin.
- If you are able to keep sugary fluids down, drink some sugary fluid every hour that you are awake. Take intermediate acting insulin according to your blood sugar tests. Your doctor or diabetes care provider will tell you how to do this.

Examples of sugary fluids are:

- 80 ml or  $\frac{1}{2}$  cup gingerale, apple juice or Kool-Aid
- $\frac{1}{2}$  popsicle
- 60 ml or  $\frac{1}{2}$  cup jello

### Contact your doctor or diabetes care provider right away:

- if you have continued low blood sugars
- you vomit more than 2 times in 12 hours



## **Extended Long Acting Insulin**

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### **Names for this kind of insulin are:**

- Detemir or Levemir
- Glargine or Lantus

### **How fast and long does this insulin work to control blood sugar?**

- Starts to work in 90 minutes.
- Provides more even levels of insulin for 24 hours.

### **How to take this insulin**

Follow your doctor's or diabetes care provider's advice on when to take this insulin. It is usually taken once a day at bedtime. If you use this insulin 2 times a day, it is usually taken with breakfast and before bedtime. Give this insulin at the same time each day.

If you forget to take this insulin, you can still take it up to 1 hour after the scheduled time.

Your diabetes care provider or pharmacist will show you how and where to inject this type of insulin.

**Do not mix this insulin with any other insulin.**

### **How long is insulin safe to use?**

- Always check the expiry date on the package before using. Never use expired insulin.
- **Store opened insulin at room temperature.**
- **Store unopened insulin in the fridge.**
- Never keep insulin close to a stove, microwave or in a vehicle where it may be too hot or too cold. This destroys insulin.

- **Lantus:** After opening, use for 28 days then throw out.
- **Levemir:** After opening, use for 42 days then throw out.

### **While you are taking this medication you may notice**

- low blood sugar

### **Some signs of low blood sugar are**

- dizziness
- clammy skin
- cold sweat
- tiredness
- slurred speech
- shakiness
- headache
- mood change

Check your blood sugar if you feel any of these symptoms.

### **If your blood sugar is below 4.0 mmol/L**

1. Take 15 grams of a fast acting carbohydrate right away.  
Taking 15 grams of a fast acting carbohydrate will raise your blood sugar quickly. Examples of 15 grams of fast acting carbohydrates are:
  - Chew glucose or dextrose tablets. Read the package to know how many you need to chew to make 15 grams **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup orange juice **or**
  - Drink 175 ml or  $\frac{3}{4}$  cup regular pop
2. Wait 15 minutes and check your blood sugar again.
3. If your blood sugar is still below 4.0 mmol/L, treat again with 15 grams of a fast acting carbohydrate listed above.
4. Repeat these steps until your blood sugar is in your target level.
5. If your next meal or snack is more than 1 hour away, you need to eat  $\frac{1}{2}$  sandwich or 6 crackers with cheese to keep your blood sugar greater than 4.0 mmol/L.

## **Extended Long Acting Insulin continued . . .**

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You can talk to your diabetes care provider or pharmacist about other fast acting carbohydrates to carry with you to prevent or treat low blood sugar.

### **When you are sick**

During a visit with your diabetes care provider, it is important to learn how to look after yourself when you are sick. When you are sick your blood sugar can change a lot and quickly. Follow the sick day plan you get from your diabetes care provider.

### **Here are some general guidelines:**

- Blood sugar tends to go up on sick days. Test your blood sugar every 4 hours while you are feeling sick.
- If you are sick, not eating and your blood sugar is less than 4.0 mmol/L, take extended long acting insulin. Your doctor or diabetes care provider will tell you how much less to give.
- If you are able to keep sugary fluids down, drink some sugary fluid every hour that you are awake. Take extended long acting insulin according to your blood sugar tests. Your doctor or diabetes care provider will tell you how to do this.

Examples of sugary fluids are:

- 80 ml or ½ cup gingerale, apple juice or Kool-Aid
- ½ popsicle
- 60 ml or ½ cup jello

### **Contact your doctor or diabetes care provider right away if:**

- if you have continued low blood sugars
- you vomit more than 2 times in 12 hours



# Renal Transplant Clinic

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## Introduction

Your transplant gives you improved quality of life. You will soon have the freedom to return to work, travel and think about having children. The goal in the Transplant Clinic is to provide the best care for you by working closely with you and your health care provider.

## How often do I come in for check-ups?

After you go home from the hospital, you will come to the Transplant Clinic 2 to 3 times a week. Blood work is done before each visit. As time passes, the number of visits will decrease to 1 visit a week, then 1 visit a month, then 1 visit every 4 months.

Sometimes blood tests are needed between visits. These can be done in your local area when your transplant doctor approves or at St. Joseph's Outpatient Lab. If you have problems with transportation, contact your social worker for help.

## What happens in the Transplant Clinic?

When you first arrive at the hospital, go to the Outpatient Lab to have your blood work done and a urine test when ordered. The clinic nurse will give you a blood work requisition for your next visit. This form will be used every time you go to the Outpatient Lab for blood test so please get it back from the Outpatient lab so you can use it again.

You then come to the Transplant Clinic where the clinic nurse will go over your record binder with you. The transplant doctor will examine you. The doctor and nurse will review your medications with you. You can also ask any questions you have. This is also a good time to ask for any prescriptions you may need.

There is room for 1 person to come with you for each clinic visit. Please arrange to have children looked after at home. If you bring children, they must be supervised. The wait can be long and children may not be able to stay quiet.

After your check-up, your next clinic appointment will be booked. If you need to see a specialist about a problem, an appointment will be made for you through the Transplant Clinic.

### Staying in Touch

Since the Transplant Clinic may call you, it is a good idea to have an answering machine or service so you do not miss messages. Be sure to call back to confirm any message left.

When you get a message about your medication, call back to make sure you know the correct amount to take and the time of day to take it.



We need to have your mobile (cell) phone and work numbers as well.

### Your First Visits to the Transplant Clinic

Here are some helpful hints for your first clinic visits:

- Appointment hours are Monday to Friday 8:30 a.m. to 4:30 p.m.
- You will be given an appointment for each visit.
- The Outpatient Lab on Level 1 in the Fontbonne Building is open at 8:00 a.m. Plan to be at the Lab at 8:00 a.m.
- ✘ **Do not FAST before your first visit.** Eat breakfast at home and follow your normal morning routine. If you need to fast for any blood tests we will let you know in advance.
- Be sure to take all of your other morning medications before leaving home.

If you take the following medication:

#### ☐ Sirolimus (Rapamune, Rapamycin):

✘ **Do not take Sirolimus on the morning of your clinic visit.** Blood tests must be done 24 hours after taking your last dose. Bring this medication with you. Take the Sirolimus after the blood tests are done.

**❑ Advagraf (Tacrolimus Extended Release):**

**✘ Do not take Advagraf on the morning of your clinic visit.** Blood tests must be done 24 hours after taking your last dose. Bring this medication with you. Take the Advagraf after the blood tests are done.

**❑ Prograf (Tacrolimus):**

**✘ Do not take Prograf on the morning of your clinic visit.** Blood tests must be done 12 hours after taking your last dose. Bring this medication with you. Take the Prograf after the blood tests are done.

**❑ Cellcept (Mycophenolate Mofetil):**

**✘ Do not take Cellcept on the morning of your clinic visit.** Blood tests must be done 12 after taking your last dose. Bring this medication with you. Take the Cellcept after the blood tests are done.

**❑ Cyclosporin (Neoral):**

Take Cyclosporin 2 hours before you have your blood tests done. Blood tests must be done before 10:00 a.m.

**After blood tests are done in the Outpatient Lab:**

- Come to the Transplant Clinic for your scheduled appointment.
- **Bring your health card to every visit.**
- Bring your teaching binder to every visit. Make sure the records are up to date including the results for the morning you are coming to clinic. Remember to bring an up-to-date list of the medications and doses that you take.
- You may want to bring a snack. If you have diabetes, be sure to bring a snack with you.
- You may have to wait for a while. We thank you for your patience. **We make every effort to see you as quickly as we can. We need to take the sickest patients first.** Your appointment may take up to 2 hours to complete.

## After Your Kidney Transplant

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- If you need to change an appointment or will be late for an appointment, call the Transplant Clinic at ext.33775.



## General Transplant Clinic Visit Tips

**905-522-1155 ext. 33775**

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- You must have an appointment to be seen.  
**✘ Please do not drop into the clinic.**  
**Call if you have questions or concerns.**
- Call the clinic with any problems about your transplant.  
Be prepared to leave a detailed message on the answering machine and someone will call you back within 24 hours unless it is an urgent problem. You can call the clinic from 8:00 a.m. to 4:30 p.m. After hours emergency calls should be made to the Transplant Unit.
- ✘ Do not call the Transplant Clinic or Unit with urgent medical problems. For urgent medical care call 911 or your local emergency number or go to the closest Emergency Centre.
- You will have blood tests done before every clinic visit. Blood tests must be done every 2 months. If you are coming for a regular clinic visit you can have your blood tests done at your own lab 3 to 5 days before your appointment when your transplant doctor approves.
- Bring a list of your questions and concerns to each clinic visit.
- Bring an up-to-date list of medications and doses to each clinic visit.
- Call 2 weeks in advance if you need a prescription refilled. We will not telephone prescriptions to your pharmacy. The prescription is mailed to you.
- Call 2 weeks in advance if you need a requisition for blood tests. We will not telephone orders to the Lab. The requisition is mailed to you.
- Call 4 weeks in advance if you need a travel letter prepared.
- Call 24 hours in advance to cancel an appointment.



- If you have a problem with drug coverage, talk to the nurse in the Transplant Clinic. If you do not have insurance through an employer or benefit plan it is your responsibility to apply for Trillium Coverage. Medications are expensive and needed to keep your kidney healthy.
- Before having dental work or a cleaning you may or may not need to take antibiotic medication the day of the procedure. Talk to your health care provider and dentist to make plans.
- Help us keep your file up to date. Let us know any time you change your:
  - Name
  - Address
  - Health card and benefits information
  - Telephone numbers at home, work and mobile (cell)
  - Pharmacy telephone number
  - Family doctor's or health care provider's contact information
  - Any other important information



## Where is the Transplant Clinic?

The clinic is in St. Joseph's Hospital on Level 0 of the Marian Wing where the nephrology offices are.

The closest entrance is off Charlton Avenue at the Martha Wing.

You can also enter the hospital through:

- The main entrance off Charlton Avenue East
- Fontbonne Building beside the Visitor Parking Garage

If you are having blood tests taken at St. Joseph's Outpatient Lab, enter through the Fontbonne Building. The Outpatient Lab is on the first floor of the Fontbonne Building. You can then go over to the Transplant Clinic.

# Questions Often Asked

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## Where can I park?

You can park in the Visitors Parking Garage off James Street South. There is metre parking on Charlton Avenue East, Hughson Street and Forest Avenue. **Parking at the front of the hospital is premium parking rates and expensive. There are no coupons, special rates or validations accepted in this lot.**



Transplant patients can get a reduced rate parking pass for the first 2 months after a transplant. You can ask about this at the Parking Office at St. Joseph's Hospital.

## When do I go to the Emergency Department?

If you have a serious medical emergency, you need to go to the nearest Emergency Department. Have someone call the Transplant Clinic or Transplant Unit to let them know your condition and what Emergency Department you are going to.



## What happens to my dialysis access after a transplant?

Fistulas and grafts are not removed. If your arm is red, painful, or swollen, or if you cannot feel the thrill, call the Transplant Clinic for treatment.



If you have a peritoneal catheter, it is left in place for 2 to 3 months. **The catheter is cleaned and irrigated weekly by your local dialysis centre.** All of this is arranged before you go home.

A tunnelled line catheter is left in place for 1 month. **The catheter is cleaned and flushed weekly by your local Dialysis Centre.** All of this is arranged before you go home.



# Staying Healthy

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## Exercise

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### Why is exercise important?

Exercise is good for everyone. Some people like to exercise with a friend for fun and support.

A regular exercise program will:

- increase your strength, stamina and energy – exercise can help you control the muscle wasting caused by imuran and prednisone
- increase your bone strength – prednisone makes bones weaker
- help you control your weight, blood pressure and level of stress
- lower your blood cholesterol

### How soon after a transplant can I start exercising?

You can start walking after your transplant as soon as you are allowed to move around.



### How much exercise should I get?

Start any exercise program slowly.

Start with 5 minutes once or twice a day.

Add 1 to 2 minutes each week as you feel your strength and energy returning. Walking is one of the best exercises to do.

Exercises that allow you to use the large muscles in your arms and legs are good for you.

Work up to 20 and 30 minutes each time you exercise.

Try to exercise at least 3 times a week, every other day.



## What kinds of exercise can I do?

Some exercises you can do are:

- aerobics
- biking
- tennis
- jogging
- racquetball
- swimming
- cross-country skiing
- yoga



## Are there any exercises I should avoid?

Avoid all contact sports where direct injury can occur to your kidney such as:

- basketball
- body building
- football
- hockey
- judo
- rugby
- soccer
- wrestling

## Are there any times I should not exercise?

Change your exercise routine or stop exercising when you have:

- flu, cold or do not feel well
- a joint or bone injury

Stop exercising if you become very short of breath, feel chest pain, have an irregular or fast heart beat, nausea, leg cramps or feel lightheaded or dizzy.

Check with your doctor if you have any questions, concerns or problems.

## Can I exercise if I have diabetes?

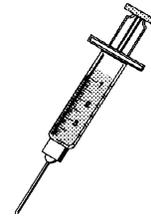
People with diabetes need to exercise too. There are guidelines you need to follow before you exercise. Talk to your doctor or diabetes educator before you start an exercise program.

## Influenza Vaccine or Flu Shot

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### What is the influenza vaccine or flu shot?

Influenza is a very catchy viral illness that is worse than a cold. It weakens your body's ability to fight infection. The most common complication is pneumonia. Pneumonia is an infection in one or more lungs.



The influenza vaccine or flu shot is given once a year and ready each fall season. Each year, medical experts decide what types of flu they think will be going around. They make a vaccine to protect you from getting these types of flu only. The vaccine helps protect you from getting certain types of flu. You may still catch the flu but have less symptoms. **You cannot get the flu from this vaccine.**

We recommend you get a flu shot unless you have had a reaction to a previously flu shot.

### Who should get a flu shot?

All people in high risk medical groups should get a vaccine.

This includes any person who:

- had an organ transplant more than 3 months ago
- is over 65 years of age
- has a chronic heart, lung or kidney disease
- has diabetes, cancer or anemia (low iron in blood)
- is living in a nursing home or care facility

## **What are the side effects of the flu shot?**

Most people have little or no side effects:

- Your arm may be red, sore or have a bit of swelling from the needle.
- You may get a fever, feel tired and have sore muscles 6 to 12 hours after the needle. This can last 1 to 2 days.

It is rare to have an allergic reaction to the vaccine. An allergic reaction happens very fast. If you have an allergic reaction, you may have hives, swelling in your throat, mouth, lips, tongue and have a lot of trouble breathing. You need help right away. The health care professional giving you the needle will be right there to help you if this happens.

## **When should I get a flu shot?**

Ask your family doctor or health care provider for a flu shot in September or October. This will give your body time to build up some resistance to some viruses before the flu season begins.

## **Pneumonia Vaccine**

You can also get a pneumonia vaccine through your family doctor or health care provider. This vaccine is only given one time in your life. Talk to your family doctor or health care provider about this.

## Protect Yourself from the Sun

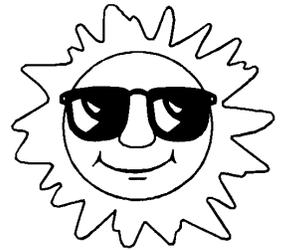
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### About the sun

Sunlight is made of 2 kinds of ultraviolet light rays:

- Ultraviolet A (UVA) and Ultraviolet B (UVB).
- Both UVA and UVB light damage skin and cause skin cancer.



Anti-rejection medications also make your skin more sensitive to sun damage. You need to be careful when you are outside during the day to prevent skin problems.

The sun is also out on cloudy days. You need to protect your skin in the winter, spring, summer and fall.

UVA and UVB light is also reflected from snow, sand, patio stones and decks.

### Here are some helpful hints to protect your skin:

#### Cover your body

##### Think: Slip, Slap, Slop

- Slip on a long sleeved shirt and pants.
- Slap on a wide brim hat.
- Slop on some sunscreen.
- Lotions, creams or sprays should have a sunscreen factor of 15 or more.
- Read the label before you buy any product or ask for help when buying a product.
- Apply sunscreen one hour before going outside.



- Put sunscreen on after swimming or any activity where you sweat.
- Re-apply sunscreen every 2 to 3 hours when outside.
- Use a makeup foundation that contains sunscreen every day.



## Protect your eyes

Wear sunglasses that filter UVA and UVB light. Read the label or ask for help before you buy sunglasses.



## Be careful

- Avoid the sun at its strongest time between 10:00 a.m. and 3:00 p.m.
- Be careful in the shade as you can still get burned.
- Listen to the radio for the UV Index. In the summer when the sun is the strongest, most radio stations report the UV Index using a scale of 1 to 10. When the number is close to 10, the UV Index is high. This means the sun will damage your skin faster. The radio reports may also tell you how fast skin will be damaged along with the Index number. As a transplant patient, you should protect yourself all the time. Use the UV Index only to know when you should be very careful.
- ✘ Do not use tanning beds, tanning pills or indoor sun lamps. These can damage skin.
- A tan means permanent sun damage. This damage is responsible for 90% of skin aging and is linked to skin cancer.



## Check your skin

Check your skin once a month. You can do this by standing in front of a full-length mirror holding a small mirror to look around.

Check your skin from your head to your toes, front and back and on both sides.

Check hidden spots such as under your arms and between your legs.

Have someone else check your head and scalp.

You may need some help checking your body as well. The same person should help each time so he or she can tell if something has changed. Most people have moles, freckles and spots. This is normal. A change may be a sign of a problem.



### Look for:

- changes in colour, size, shape and pattern of moles, freckles and spots
- any discharge, oozing, crusting, bleeding or scaly areas
- changes in the feeling in an area such as numbness, tenderness, pain or itching
- changes in consistency such as softer or harder

**Show your doctor any changes.**



## Foot and Nail Care

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Here are some helpful hints on how to keep your feet healthy.

### Checking your feet:

- Check each foot daily. Check for breaks in the skin, blisters, bruises, infections, dry skin and calluses.
- Use good lighting and wear your glasses.
- Look at the top and bottom of each foot and between the toes.
- Use a mirror to help you see. If you have trouble seeing, have a family member, friend or care helper look at your feet once a week.
- Feel for changes in temperature.
- Look for changes in colour.
- Have your feet checked when you visit your doctor or health care provider.



### Washing your feet:

- Wash your feet every day with mild soap and warm water. Test the water with your hand to make sure the water is warm. Hot water causes burns.
- While your feet are still wet, use a pumice stone to keep calluses under control.
- Dry your feet carefully, especially between toes.
- ✗ Do not soak your feet or have your feet in water for more than 10 minutes. This causes dry and cracked skin.



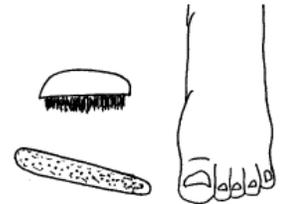
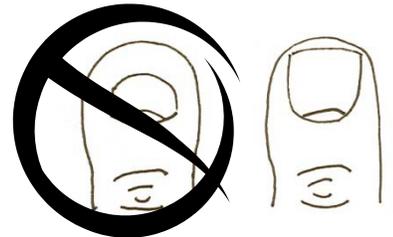
### Skin Care:

- Put non-scented lotion or cream on your heels and the bottoms of your feet. Wipe off any extra lotion.
- ✗ Do not put lotion or cream between your toes or open areas. This causes increased moisture and can lead to infection.



### Nail Care:

- Do nail care after a bath or shower when nails are soft.
- Trim your toenails straight across and file any sharp edges. Avoid cutting nails too short.
- Use an emery board to shape nails even with the end of each toe.
- Use a soft nailbrush daily to clean under toes.
- If you have hard or curled nails, problem skin areas, or trouble seeing, get help with your foot care.
- ✗ Never use a sharp pointed tool.



### Footwear:

- Wear clean, proper fitting socks every day.
- White cotton or wool socks are best.
- ✗ Do not wear knee high nylons, garters, elastics or tight socks with seams or mends.



### Shoes:

- Wear good supportive shoes that fit well.
- Shop for shoes in the afternoon when your feet are a little bigger.
- Shoes should be supportive, have low heels that are less than 5 cm high and should not rub or pinch. Buy shoes at a store that has staff that know how to fit shoes well.



### Shoes (continued):

- You should have a thumb's width between your toe and the end of your shoe when fitted.
- Check the inside of your shoes for torn lining, rough areas or loose objects before you put them on.
- When a shoe cannot be fixed, throw the pair away.
- Always wear socks with your shoes.
- ✗ Do not wear insoles that you buy over-the-counter.
- ✗ Never walk barefoot indoors or outdoors.



### Helpful Hints:

- Keep slippers by your bed so you can put them on and walk with your feet protected.
- Wear socks when your feet are cold. Hot water bottles, heating pads, and microwave bean and oat bags may cause burns.
- Wear sandals or water shoes to protect your feet on beaches, cement, walkways, decks and driveways.
- Clean a cut or crack with mild soap and water and cover it with clean dry gauze. Contact your doctor or health care provider right away.
- Wiggle your toes and move your ankles around for a few minutes several times a day to improve blood flow in your feet and legs.
- Exercise regularly to improve circulation.



### Things to avoid and why:

✘ Do not smoke. Smoking slows circulation and causes foot and leg problems. Smoking 1 cigarette reduces circulation to your legs by 30% for 1 hour. If you want help to quit smoking, talk to your health care provider.



✘ Do not use over-the-counter medications or herbal products to treat corns and warts. Do not cut ingrown toenails. See a foot care professional to provide these services.

✘ Do not cross your legs as this slows the blood flow in the lower part of your legs.



✘ Do not use adhesive tape on your skin. This may irritate your skin. Use special medical paper tape.

✘ Do not wear sandals with straps between the toes. Straps irritate your skin.



### When to call for help:

Call your doctor, health care provider or foot care professional right away if you:

- have a blister, sore or cracks in your feet
- have swelling, pain, redness
- are concerned about your feet



### See a foot care professional if:

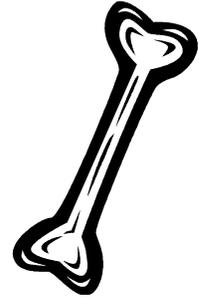
- you have corns, calluses, bunions, warts or ingrown toenails
- your nails are hard to look after
- you need help with foot care
- you have a concern about your feet

## Osteoporosis

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### What is osteoporosis?

Osteoporosis means porous or brittle bones. You have osteoporosis when your bones begin to lose strength. The solid parts of the bones weaken. This often starts in the spine (back), hips and wrists.



When you have osteoporosis, your bones may also break easy.

### What causes osteoporosis?

We do not know this answer. All bones have 2 kinds of cells that help keep them healthy:

- scavenger cells called osteoclasts
- building cells called osteoblasts

Scavenger cells look for parts of the bone that need fixing. They get the bone ready for the building cells by taking away all of the old cells that break down. They are sometimes called bone-eating cells. Building cells then come and repair the bone. These cells work as partners to keep bones strong and healthy.

In osteoporosis, the builder cells begin to slow down. The scavenger cells keep on working. Over time, the bones begin to lose their mass or density and strength. They become brittle and break.



## Who gets osteoporosis?

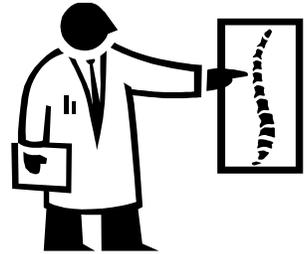
Men and women get osteoporosis. Research shows that 1 in 3 women and 1 in 5 men will have an osteoporosis fracture in their lifetime.

## How will I know if I have osteoporosis?

Since you lose bone mass slowly over time, many people do not know this is happening. This is why osteoporosis is sometimes called **the silent thief**.

Most people do not feel any pain. Often, the first sign is a broken bone. Breaks are more common in hips, wrists and backbones.

If you think you may be at risk of having osteoporosis, talk to your health care provider. Your health care provider should first complete a Fracture Risk Assessment tool.



If you think you may be at risk of having osteoporosis, talk to your doctor. Your doctor or health care provider will arrange a Bone Mineral Density test or BMD. This is a quick, painless and safe way to look at your bone health using small amounts of X-rays.

## Who can I talk to if I have questions or concerns?

Some treatments can help prevent or slow down osteoporosis. Try to learn more about the prevention and treatment of osteoporosis by reading, going to lectures and talking to others.

Talk to your doctor or health care provider to decide the best plan for you. There are many research studies being done to learn how to prevent and treat osteoporosis. Your doctor or health care provider will know the current safe and recommended treatments.

If you have questions or concerns talk to your family doctor or health care provider. You can work together to plan what is best for you. You may need to be referred to a dietitian or exercise therapist.

**For more information:**

Osteoporosis Canada is the leading source of free information about osteoporosis in Canada.

**Call Toll-Free:** 1-800-463-6842

**Website:** [www.osteoporosis.ca](http://www.osteoporosis.ca)



Osteoporosis Canada

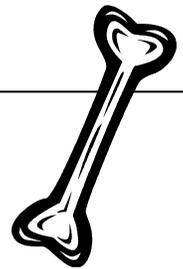
Ostéoporose Canada



**Promoting Healthy Bones**

**What can I do to promote healthy bones?**

Osteoporosis can be prevented or slowed down. Your doctor, nurse, dietitian and pharmacist can help you learn how to have strong, healthy bones.



**Be active and exercise**

All of these types of exercise help:

- Weight bearing
- Strength resistance
- Postural training
- Balance training
- Stretching



Weight-bearing exercises are the kind you do when your feet are pressing on a surface such as walking, dancing, playing tennis, stair-climbing, biking and doing low impact aerobics.

You should exercise 30 to 45 minutes at a time, 3 times a week. Any exercise, weight bearing or not, is better than no exercise. You can also do 10 minute intervals if you find exercising for long periods of time hard to do.

Talk to your doctor or health care provider about starting an exercise program if you are not following one now.

## Add calcium to your diet

Keep your bones strong with a good supply of calcium.

Eat food high in calcium.

The amount you need:

- All teenagers - 1200 to 1400 mg a day
  - Pregnant or breastfeeding women - 1000 mg a day
  - All adults age 19 to 50 - 1000 mg a day
  - All adults over 50 years old – 1200 mg a day
- The best sources of calcium are milk and milk products such as cheese and yogurt.
  - Spinach, rhubarb and beet greens also contain calcium but it is not well absorbed by your body.
  - Tofu with calcium sulphate, baked beans and soybeans also contain calcium, but in lesser amounts.
  - An 8-ounce glass or 250 ml of milk contains 300 mg of calcium.



You may want to talk to a dietitian to see how you can adjust your diet to meet your needs. Your health care provider can refer you to a dietitian.

## Calcium supplements

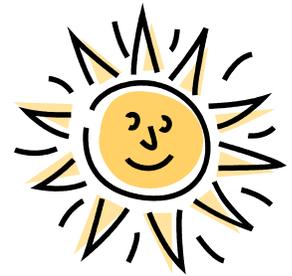
If you do not get enough calcium in your diet, you may need to take a calcium supplement such as calcium carbonate or citrate. Do not take non-purified calcium such as bone-meal and dolomite.



If you take a calcium supplement spread them out over the day and take with plenty of water. If you have heart or kidney problems talk to your doctor or dietitian about the amount of water to drink with the supplement.

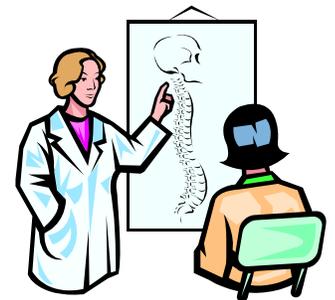
## Vitamin D

You need vitamin D to absorb calcium and keep your bones strong. Sunlight helps vitamin D work. When you do not get enough sunlight you need extra vitamin D. In Canada, this often happens during the winter months.



In the summer months 15 minutes of sunlight a day on your hands and face without sun protections will give you all of the vitamin D you need. Milk and milk products also contain vitamin D. Other products with vitamin D are margarine, fish, liver, eggs and meat.

It is hard to get enough Vitamin D from food alone. You may need to take a Vitamin D supplement. In Canada it is recommended that everyone has a vitamin D supplement during the winter months.



Talk to your doctor, pharmacist, dietitian or health care provider before taking a supplement.

### **Osteoporosis Canada recommends that Canadians:**

- aged 19 to 50 have Vitamin D 400 to 1000 IUs a day
- over 50 have Vitamin D 800 to 2000 IUs a day
- pregnant or lactating (breastfeeding) have Vitamin D 400 to 1000 IUs a day
- IUs are International Units



Osteoporosis Canada

Ostéoporose Canada



## Reduce alcohol and caffeine and quit smoking

Have less than 2 drinks of wine, beer or liquor a day.

Avoid drinks with caffeine such as coffee, tea and colas.

Limit caffeine to 3 cups or less a day.

Stop smoking. For more help call the Smoker's Helpline:

- 1-877-513-5333
- [www.smokershelpline.ca](http://www.smokershelpline.ca)



## Medications to slow bone loss

There are many medications that slow bone loss. Some of these are taken by injection, intravenous infusion or oral pill. These medications are not hormones.

It is important to talk to your health care provider about the medication that is best for you and your lifestyle.

Talk to your health care provider to learn more about medications and osteoporosis.



## About Hormone Replacement Therapy (HRT)

Estrogen or a combination of estrogen and progestin may be prescribed to prevent bone loss when a woman has her ovaries removed by surgery or during menopause.

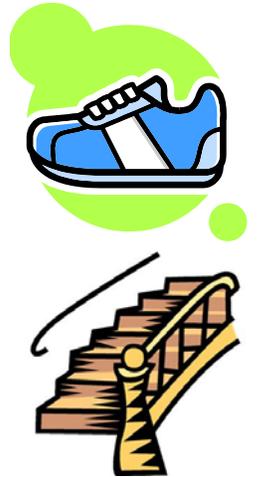
There are some benefits and risks to having hormone replacement therapy.

**Since each woman has her own needs, you should talk to your health care provider about the benefits and risks for you.**

## Be careful

Take special care to prevent falls, injury and broken bones:

- Wear flat, comfortable shoes with non-slip soles.
- Use railings going up and down stairs.
- Remove scatter rugs in your home and avoid walking on scatter rugs when visiting.
- In cold weather, take extra care around ice.





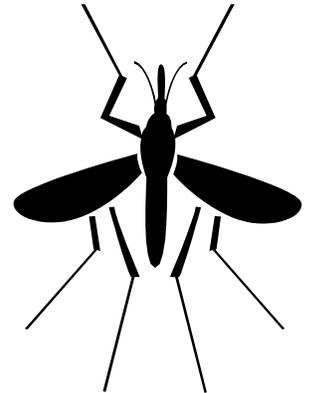
## West Nile Virus

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### What is West Nile Virus?

West Nile Virus is a virus germ that is spread by mosquitoes that have fed on the blood of birds infected with West Nile Virus. Mosquitoes carrying the virus then spread it by biting humans. Mosquitoes can also infect horses, cats, bats, chipmunks, skunks, squirrels and domestic rabbits. West Nile Virus is also written as WNV.



### What are the symptoms of West Nile Virus infection?

Symptoms vary widely from person to person. Some people infected with West Nile Virus have no symptoms and do not get sick. Some people have only mild symptoms.

People with weaker immune systems, such as transplant recipients, are at greater risk for serious health effects.

Mild symptoms are flu-like symptoms:

- fever, rash, headache and muscle aches

Serious symptoms include:

- rapid onset of severe headache
- high fever
- stiff neck
- trouble swallowing
- nausea or vomiting
- drowsiness or confusion
- lack of coordination
- muscle weakness or paralysis
- loss of consciousness

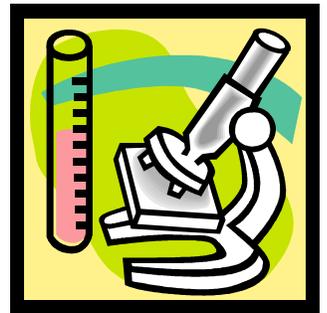
More serious infections may lead to:

- inflammation of the lining of the brain or spinal cord called meningitis
- inflammation of the brain called encephalitis

**It is important to pay attention to the symptoms as you can die from meningitis or encephalitis.**

## **How do people get infected with West Nile Virus?**

Research shows that most people get the West Nile Virus from the bite of an infected mosquito. It has also been found that West Nile Virus could be passed in other ways such as blood transfusions and organ and tissue transplants. The risk of getting West Nile Virus this way is very low.



There is no evidence that shows people can get West Nile Virus by coughing, touching, kissing, or being near someone who is infected.

## **What can I do to reduce my risk of West Nile infection?**

### **Protect yourself from mosquito bites:**

- Apply insect repellent containing DEET (N, N-diethyl-methyltoluamide) to exposed skin whenever you are outdoors. There are more details about DEET on the next page.
- Wear light coloured clothing.
- Wear long-sleeves, hooded tops, long pants and socks when outdoors. You can buy special clothing to protect from mosquitoes if you spend a lot of time outdoors.

- Spray your clothes with repellents that contain DEET as mosquitoes may bite through thin clothing. ✘ Do not apply repellents containing permethrin directly onto your skin.  
✘ Do not spray repellents containing DEET on the skin under your clothing.
- Avoid going outdoors between dusk and dawn, as this is peak mosquito time. When you do go out take extra care to use repellent and protective clothing during evening and early morning.
- Mosquitoes lay their eggs in standing water. Limit the number of places around your home for mosquitoes to breed by getting rid of items that hold water.

### **How often should I put on insect repellent?**

Follow the directions on the product you are using. This will tell you how often to put the spray or lotion on. If you sweat or get wet you may need to put the product on more often.

Products that contain a higher amount of DEET provide longer-lasting protection.

### **What products work best to repel mosquitoes?**

- Products that contain DEET work best to repel insects such as mosquitoes.
- The amount of time a product protects depends on the amount of DEET in the product.
- A higher percentage of DEET in a repellent does not mean that your protection is better. It means that protection will last longer.
- DEET concentrations higher than 50% do not increase the length of protection.

## How does the percentage of DEET in a product relate to the amount of protection it gives?



A research study found that:

- a product containing 23.8% DEET provided an average of 5 hours of protection
- a product containing 20% DEET provided almost 4 hours of protection
- a product with 6.65% DEET provided almost 2 hours of protection
- products with 4.75% DEET and 2% soybean oil were both able to provide about 1½ hours of protection

Choose a product that provides protection for the amount of time that you will be outdoors.

A higher percentage of DEET should be used if you will be outdoors for several hours while a lower percentage of DEET can be used if time outdoors will be shorter. You can also re-apply a product any time you are outdoors for a longer time.

### For more information contact:

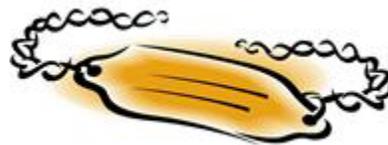
- [www.hc-sc.gc.ca](http://www.hc-sc.gc.ca)
- [www.cdc.gov](http://www.cdc.gov)



**Remember . . . For your health:**



- Take your medications
- Take your vital signs
- Maintain a healthy diet and drink at least 2 litres of fluid a day
- Exercise regularly
- Have a bath or shower every day
- Keep your clinic appointments and have blood tests done on time
- Get enough rest
- Wear medical alert identification



**We hope that you have found this binder helpful in learning to live with your new kidney.**

**You are a part of the Team. We work together to make sure you stay healthy.**

**Caring for yourself at home is an important part of this. Your understanding about caring for yourself at home is the key to continued good health.**



# Record Sheets

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- **Medication Record and Vital Signs**
- **Blood Sugar Record**
- **Intake and Output 24 Hour Record**





 **Medication Record**

**Date:** \_\_\_\_\_

Medication	Breakfast	Lunch	Dinner	Bedtime

 **Vital Signs**

Date	Weight	Temp	Blood Pressure		24 hour		Comments
			lying	standing	intake	output	



 **Medication Record**

**Date:** \_\_\_\_\_

Medication	Breakfast	Lunch	Dinner	Bedtime

 **Vital Signs**

Date	Weight	Temp	Blood Pressure		24 hour		Comments
			lying	standing	intake	output	



 **Medication Record**

**Date:** \_\_\_\_\_

Medication	Breakfast	Lunch	Dinner	Bedtime

 **Vital Signs**

Date	Weight	Temp	Blood	Pressure	24	hour	Comments
			lying	standing	intake	output	



 **Medication Record**

Date: \_\_\_\_\_

Medication	Breakfast	Lunch	Dinner	Bedtime

 **Vital Signs**

			Blood Pressure	24 hour			
Date	Weight	Temp	lying	standing	intake	output	Comments

















