

Thank you for choosing Baylor St. Luke's Medical Center

Organ transplantation leads to better health, increased activity and an improved quality of life for most recipients. Now that you have received your kidney transplant, your goal is to keep your transplanted kidney functioning well. As you recuperate from surgery and get stronger, you can look forward to having a more normal and active life than before your transplant. Maintaining a healthy lifestyle will help you enjoy the benefits of receiving your transplanted kidney. This booklet, "Maintaining a Healthy lifestyle After Your Kidney Transplant," will give you strategies for healthy living.

Contents

1	Transplant Recovery
1	Side Effects of Immunosuppressants
7	Emotions
7	Staying Healthy After Your Kidney Transplant
10	Routine Screenings and Examinations
16	Exercise
18	Diet
19	Sexual Activity
19	Birth Control and Pregnancy
20	Nutrition
21	Medications
23	Preventing Infection
24	Notes

Transplant Recovery

Recovery time after a kidney transplant varies greatly for each transplant recipient. Different factors such as the type of organ received, your overall health status, and your lab results will all affect your recovery time. Kidney transplant recipients spend an average of 4-5 days in the hospital after their surgery. Your length of time in the hospital will vary depending on the care you may need and your progress. When you leave the CV Recovery Room, you will be taken directly to our transplant unit, where you will be watched closely by your transplant nurses in a private room. Your urine output and your vital signs will be frequently monitored, including X-rays and various blood tests performed daily. Members of our transplant team will visit you during the day, along with other members of our clinical staff.

Your transplant team consists of the following:

- The Surgeon
- The Nephrologist
- RN Coordinator Transplant
- Social Worker Care Managers
- Pharmacist
- Clinical Dietitian

Now that you have received your kidney transplant, you will face many new challenges. Although you will continue to get stronger and feel better after your transplant, there are many things that need to be done to stay healthy. Maintaining a healthy lifestyle after transplant is important to your overall health and the health of your transplanted kidney. Remember to keep in contact with your transplant team. They can help guide and support you in living a healthy lifestyle.

Side Effects of Immunosuppressants

Osteoporosis

Osteoporosis is a disease in which your bones become fragile and are more likely to break or fracture. You, as a kidney transplant patient will be at an increased risk for developing Osteoporosis whether you are male or female. Immunosuppressants increase the risk for Osteoporosis, especially during the first 6-12 months after your transplant. Regular exercise can help you lower your weight, reduce stress and prevent osteoporosis. Prednisone is most strongly linked to osteoporosis followed by Cyclosporine and Tacrolimus.

Patient Tips:

- Reduce or eliminate your smoking and alcohol consumption
- Adopt to a diet which contains adequate amounts of calcium and vitamin D
- Perform weight-bearing exercises, such as walking, dancing, low-impact aerobics, weight lifting or simple leg lifts
- Use caution when performing exercises which jar or stress the bones such as running, high-impact aerobics or intensive weight lifting

Hypertension (High Blood Pressure)

Hypertension, also called high blood pressure, is one of the leading side effects of most immunosuppressants. Hypertension rarely produces symptoms and can be easily overlooked. Hypertension is most often treated with blood pressure medications. When left untreated, high blood pressure can lead to very serious complications such as heart, brain, kidney or eye damage.

There are several types of blood pressure medications that can be used to lower your blood pressure. Some of these medications work by getting rid of the extra fluid and salt from your body. Others work by slowing your heart rate or relaxing your blood vessels. Tacrolimus, Prednisone, Mycophenolate, and Sirolimus are all medications that can be associated with high blood pressure.

Patient Tips:

- Below are certain risk factors for hypertension:
- Obesity
- High cholesterol
- Limit your salt, sugar & fat intake
- Eat more fruits and vegetables
- Decreasing your and consumption tobacco use smoking increases your risk of developing hypertension
- Take blood pressure medications as prescribed

Infection

One of the primary goals with kidney transplant is the prevention of infection. Infection is a serious concern for all kidney transplant recipients. All immunosuppressants increase the risk of infection by altering your immune system's ability to recognize and respond to invading microorganisms. The earlier an infection is detected, the sooner it can be treated to avoid serious complications.

Patient Tips:

Please notify your transplant team immediately if you experience any of the following signs of infection:

- Fever
- A sore throat
- A productive cough
- Swelling of your lymph nodes
- Mouth sores
- A change in your urination

Listed below are other ways you can avoid infection:

- Practice good hygiene - wash your hands frequently
- Avoid contact with people who are sick
- Avoid large crowds
- Receive immediate medical attention for bites or large wounds
- Consult with your transplant team and your dentist before any dental procedures to determine whether or not antibiotics are necessary
- No tattoo's or body piercings

Edema/Fluid Retention (Swelling)

Edema or swelling is the accumulation of fluid in your body. Prednisone and Tacrolimus are medications that are most frequently associated with edema. Prednisone tends to cause edema in the face and legs as a result of sodium and water retention.

If edema is mild, it can be treated with the simple changes described below:

- Maintain adequate fluid intake to force fluids through the body
- (When the body does not receive enough fluid, it retains any fluid that is already there.)
- Reduce salt intake
- Increase physical activity
- Prevent or minimize edema by avoiding tight fitting cloths, jewelry or shoes
- Relieve edema by elevating your feet or even the foot of the bed

Hair loss

Immunosuppressants can cause you to lose your hair by weakening your hair strands, which increases your hair's tendency to break off at the roots. Tacrolimus is most frequently associated with hair loss. Treatment of your hair loss is rarely necessary, as your hair loss is usually temporary and your hair will eventually grow back.

Patient Tips:

- Use a conditioner after shampooing your hair
- Avoid treatments that may damage the hair such as perming, dyeing, tinting or bleaching to help minimize hair loss
- Limit your exposure to the sun and chlorine (i.e., swimming pools)

Bruising

A bruise develops when a blood vessel close to your skin's surface leaks blood. Bruising can be caused by taking Prednisone, Mycophenolate and Sirolimus medications. Because Prednisone decreases the thickness of your skin, your blood vessels are easily damaged, allowing blood to leak from the vessels and from a bruise. Mycophenolate and Sirolimus on the other hand can decrease the platelet count in the blood. Platelets are a component of the blood that allows vessels to clot.

Patient Tips:

- Report any bruising in unusual areas, such as your chest, inner thighs or inner arms Immediately to your doctor or transplant team
- Have your blood work drawn as recommended by your doctor

Hyperlipidemia (High Cholesterol)

Hyperlipidemia (high cholesterol and/or triglycerides) occurs frequently with immunosuppressant use. Long-term use of most immunosuppressants increases lipid levels to some degree. Preliminary data suggest that Sirolimus may carry the highest risk of increasing lipids along with Prednisone, followed by Cyclosporine, Tacrolimus, and Mycophenolate. Sirolimus tends to increase triglyceride levels. Steroids increase cholesterol production while Cyclosporine and Tacrolimus decrease the body's ability to eliminate cholesterol.

Hyperlipidemia can increase the risk of heart disease. By reducing the risk or severity of high lipid levels, you can significantly reduce your risk of heart disease. Several approaches may be used to manage hyperlipidemia. Medications such as Simvastatin (Zocor®), Pravastatin (Pravachol®), Atrovastatin (Upitor®) are selected to control cholesterol levels. These medications are highly effective and generally have relatively mild side effects. Recipients who have high triglycerides (with or without increased cholesterol levels) may be treated with a fibric acid derivative such as (Gemfibrozil Lipid®).

Patient Tips:

- Exercise regularly - start slowly and if possible, gradually work toward exercising for 30-45 minutes several days a week
- Adopt to a low fat, low cholesterol diet
- Avoid processed and fried foods cooked in hydrogenated vegetable oils
- Choose lean meats and chicken
- Use egg substitutes or egg whites Instead of the whole egg
- Drink low fat milk products (skim milk)
- Eat a low fat cheeses
- Monitor lipid levels “good” cholesterol (HDL), “bad” cholesterol (LDL) and triglycerides.

Tremors

Tremors are an uncontrollable trembling or quivering of your limbs which is sometimes accompanied by numbness. Tacrolimus and Cyclosporine most frequently cause tremors; however, Azathioprine has also been reported to cause tremors. You should notify your physician if you are experiencing tremors so you can be evaluated for the cause and treated appropriately. Some tremors are mild enough that they do not require treatment.

Patient Tips:

- Always report tremors or a change in sensation to your transplant team
- Some recipients report that simple stretching exercises can temporarily relieve tremors

Headaches

There are many reasons for headaches. Increased blood pressure, infection, organ dysfunction, allergies, stress, caffeine and alcohol can all cause headaches. In addition, high levels of Tacrolimus and Cyclosporine can cause headaches. Mycophenolate has also been reported to cause headaches. Managing headaches can be challenging, since multiple causes often exist. The first step toward managing headaches is avoiding risk factors.

Some risk factors include:

- Caffeine
- Foods high in tyramine (i.e., cheese)
- Alcohol

Acetaminophen (Tylenol®) is a safe nonprescription medication that transplant recipients can use for headaches. Recipients should be very careful not to exceed the recommended daily dose listed on the acetaminophen package due to the risk of liver damage with excessive doses. Non-prescription pain medications such as ibuprofen (Motrin•, Advil®) or Naproxen (Aleve®), (Naprosyn®) can decrease kidney function and should be avoided by transplant recipients.

Patient Tips:

- Try to identify any activities that may serve as triggers for your headaches
- (A diary or a log may help you keep a record of activities in relationship to your headaches.)
- Consult your doctor for guidelines on taking nonprescription medications
- Report severe or persistent headaches to your doctor immediately, especially if the headache is accompanied by changes in vision, fever, nausea, vomiting or a stiff neck
- Try sleeping or resting quickly in a dark room to relieve symptoms

Skin Cancer

Skin cancer may also be linked to immunosuppressions. Because of this, recipients taking any of the immunosuppressants are at an increased risk of developing skin cancer. Skin cancer is most effectively treated with early detection. Physicians may remove any lesions that are suspicious or suggestive of cancer. It is important that recipients pay attention to any changes in the appearance of their skin and report any changes to their doctor immediately.

Patient Tips:

- Wear sunscreen (SPF 30 or greater)
- Wear sun glasses hat & protective clothing in the sun
- Avoid tanning booths
- Avoid body tattoos and piercings
- Keep your skin clean wash skin gently and use soaps that remove oil, but do not dry your skin
- Notify your doctor as soon as possible of moles which change appearance, bleed or scab over, and sores which do not heal in a few weeks

Acne

Acne is most frequently associated with Cyclosporine, Prednisone and Sirolimus. Cyclosporine and Sirolimus increase the oiliness of the skin, which contributes to your acne.

Acne may be treated or prevented with Benzoyl peroxide, an active ingredient found in many effective nonprescriptions. Acne treatments may also be prescribed by your dermatologist.

Patient Tips:

- Keep your skin clean
- Wash areas of oily skin several times a day
- (Wash gently and do not rub the skin (i.e., Basis®).
- Avoid moisturizing soaps (i.e., Dove®, Tone®, Caress®), or harsh antibacterial soaps (i.e., Dial®).
- Do not pick your pimples since this can result in infection and scarring

Emotions

Going through a kidney transplant can be an emotional experience for you. In the early months following your transplant you may experience a wide range of emotions including anger, frustration, anxiety, moodiness, inconsistent sleep patterns, change in appetite and even depression. It is important to develop strategies to deal with your emotions and feelings after your transplant.

Patient Tips:

- There are some things you can do to help yourself. These include:
- Exercise regularly and be as active as possible
- Participate in social activities with friends and family at home and in your community
- Eat a healthy diet
- Establish a good sleeping routine. Take naps if needed and get adequate rest
- Find a way to relax through music, social activities, arts and crafts, yoga, and/or meditation
- and deep breathing
- Recognize and understand how you feel
- Let your family and friends know that you need their support. Talk to them about how you feel
- Talk to other transplant patients through support groups. Sometimes it is helpful to talk to other people who have shared the same experience
- Talking to a professional counselor may also be helpful. Your transplant team can refer you
- to someone who can help.

Staying Healthy After Your Kidney Transplant

Why could I be at risk for health problems after my transplant?

After your kidney transplant, there are several important reasons why you have a greater chance of becoming ill or having problems. The most common reason why you may become ill or have complications after your kidney transplant is because your immune system is suppressed by the medications that you will be taking after your transplant to prevent rejection and can also lead to an increased risk of infection. You are at your greatest risk of infection during the first six months after your transplant and any time your immunosuppression is increased to treat rejection. Some of the medications that you take can also cause side effects in other systems of your body. For example, you may develop high blood pressure or high blood sugar after your transplant.

When should I call my doctor and/or other members of the transplant team?

After your kidney transplant, it is important to keep in touch with your transplant team. Your team and your physician will be following your health through routine blood tests, check-ups, and transplant clinic visits. As you recover and are learning how to care for yourself, you should contact your transplant coordinator and/or physician with any questions or concerns you may have. Finding and treating problems early, before they become more serious, is important for your long-term health. Remember that your team is there to help you and to provide support throughout your transplant journey. Your nurse transplant coordinator will discuss the most important signs, symptoms or problems to report as you recover and are discharged from the hospital. There are some symptoms that are specific to your transplanted kidney. For instance, a lung transplant recipient has different concerns than a kidney transplant recipient. But, there are some symptoms or problems that occur with any type of kidney transplant that are important to report:

- Fever greater than or equal to 101• For 38.5° C
- Blood pressure readings that are higher than your usual limits
- Change in your urine: an increased or decreased amount from usual, red or rusty-brown colored urine, or a burning sensation when you urinate
- Change in your stools: an increased or decreased amount, a change in color or firmness (hard stools or liquid/watery stools}, black or bloody stools
- Edema (fluid, swelling, or “puffiness”) in the face, abdomen, or legs/feet
- Weight gain of two to three pounds/1 kilogram over night
- A new pain
- A loose cough that produces yellow/green mucous
- Shortness of breath or having difficulty breathing
- Chest pain or a tightness in the chest
- Nausea, vomiting
- Inability to take your medications or take care of yourself
- Light-headedness or being unusually weak or tired

What routine health care providers should I see?

What types of routine check-ups are important for me?

It is important to maintain your overall good health after your kidney transplant. You should have a primary care physician (PCP) or general practitioner (GP}. This physician provides routine physical examinations. follows the results of blood tests, and manages preventative healthcare and screenings. Your PCP/GP provides medical care for common health problems and those related to kidney transplant such as high blood pressure, diabetes, high cholesterol, or bone disease. Discuss your healthcare management with your transplant physician, transplant coordinator, and primary care physician to be sure that you are being followed in a comprehensive way. Each team member plays an important role in your long-term care.

Having routine health screenings will help guide your care after your transplant and detect problems early. Screening is a way to look for signs of a medical problem even if you have no symptoms. If a disease or condition is found in its early stages, treatment may be more effective. Ask your doctor and transplant team what screenings are right for you.

How can I avoid health problems after transplant?

Preventing problems and being aware of any potential risks is very important to lessen or avoid health problems,

Some important guidelines for staying healthy after your transplant include:

- Frequent and thorough hand-washing is the best way to prevent infections. Hands should be washed before preparing food, before eating, after using the bathroom, and before and after touching wounds. Hands should also be washed after touching pets or animals, after changing diapers, after touching plants or soil, and when visibly dirty.
- Many illnesses are passed through secretions from sneezing and coughing. Transplant recipients should avoid close contact with people who have colds, are sneezing and coughing, have symptoms of the “flu,” or have diarrhea or are vomiting. Avoiding ill family members who live in your household may be difficult, particularly if they have respiratory symptoms (coughing, sneezing, cold and flu symptoms). In that case, some transplant centers recommend that both the transplant recipient and infected person wear a mask until the symptoms resolve. Direct contact with the household member who is ill should be avoided as much as possible and good hand washing should be maintained.
- Avoid crowds. Some transplant centers advise transplant recipients to avoid large crowds, particularly in the first three months after transplant and/ or during cold and flu season. Remember that the higher your level of immunosuppression, the more likely you are to get an infection. Discuss your risk with your physician and transplant coordinator and follow your center’s guidelines.
- Avoid environments where potential infective organisms may live. Transplant recipients should stay away from places that may lead to infection in immunosuppressed patients. These environments include construction sites, homes or buildings that have mold, indoor botanical gardens that are very humid, and rooms with a high level of tobacco smoke.

Routine Screenings and Examinations

Dental Care

Maintaining clean and healthy teeth and gums are important following your transplant. Some of the dental problems after transplant may be related to side effects from some of the medications you are taking. You may develop infections in and around your mouth and gums because your immune system is suppressed. Overgrowth of gum tissue (also called gingival hyperplasia) and a tendency for gums to bleed are side effects of Cyclosporine use.

Paying careful attention to your dental hygiene is the most effective form of treatment. Flossing around and below the gum line reduces severity of gingival hyperplasia since plaque buildup may be involved in gum abnormalities. Over-the-counter oral rinses may help, such as Peroxyle®. Antibiotics such as Zithromax (Azithromycin) have also been used by some patients.

Patient Tips:

- Notify your dentist that you are taking Cyclosporine or Tacrolimus
- Visit your dentist at least twice a year for dental cleaning
- Brush your teeth at least twice a day with a soft nylon toothbrush and floss at least once a day.
- Massage your gums with your fingers, or try using a water pick or an electric toothbrush.
- Avoid smoking and mouth breathing, which are risk factors for gingival hyperplasia.

Eye Care

Eye and vision examinations are important for you. Vision screenings (checking how well you see) can be completed regularly by your health care professional to detect problems. You may have an increased risk of developing eye problems from the medications that suppress your immune system. Discuss the risk of developing eye problems with your transplant physician or transplant coordinator. It may be recommended that you have ophthalmology exams every year if you are at risk. You and your doctor should decide on the frequency of an examination by your eye doctor. If you are diabetic you should have a dilated eye examination with your eye doctor at least once a year.

The most common eye problems seen after kidney transplant include cataracts, changes in the pressure of the eye (intraocular pressure) leading to glaucoma, scarring in the layer of blood vessels behind the retina, and damage to the small blood vessels in the retina due to diabetes (diabetic retinopathy). Eye infections have also been reported, but are not as common now due to improved anti-rejection protocols and treatments to prevent infection.

Information and Definitions:

- A cataract is a clouding of the clear lens of the eye. Cataracts are usually related to aging of the eye. Other risk factors include diabetes, steroids, smoking, long term unprotected exposure to the sun's UV rays, and injury to the eye.
- Glaucoma results from damage to the optic nerve. This nerve carries the images we see to the brain. Damage to the optic nerve is often seen with increased pressure inside the eye (intraocular pressure).

You are at increased risk for developing glaucoma if you:

- Are 60 years of age or older
- Are African American, particularly those over the age of 40
- Have a family history of glaucoma
- Have a medical history of diabetes or a serious eye Injury
- Are taking medications that increase the risk of glaucoma

Diabetic retinopathy occurs when the blood vessels inside the retina become damaged from high blood sugar levels. When the blood vessels are damaged, fluids may leak into the retina and block the flow of blood. Diabetic retinopathy may lead to vision loss.

Call your primary care physician and/or eye doctor if you have any symptoms of eye problems including:

- Eye pain
- Changes in vision such as blurring, double vision, or fading of colors
- Flashes of light
- Sensitivity to light
- Dry eyes with redness, itching, and/or burning, the effects of anti-rejection medications, anemia (Low red blood cell count), and many other conditions related to the red cells and white cells of the blood
- Seeing spots
- Infection: Tests to check for cytomegalovirus
- The appearance of dark spots in your vision (CMV) and Epstein Barr Virus (EBV) are also
- Distorted or wavy lines or edges of objects drawn routinely in patients who are at risk for these viruses.

Routine Labs/Blood Test

Having lab tests (blood test) completed routinely is another important part of your care that contributes to a healthy lifestyle after your transplant. Your transplant team will monitor the results of your lab test to determine how your body is recovering and how well your transplanted kidney and other body systems are functioning.

The following tests will be performed to monitor your health:

- The level of your anti-rejection medicine (These tests will monitor the blood level of your anti-rejection medicine)
- Kidney function and electrolytes (These tests will show us how well your kidney(s) are functioning)
- Liver function tests (These tests monitors your liver function)
- Complete blood count (CBC) or full blood count (FBC) (This test is monitored to check for infection, the effects of your anti-rejection medications, and anemia)
- Infection (These tests will check for cytomegalovirus (CMV and Epstein Barr Virus (EBV))

Blood Pressure Screening

Blood pressure is the measurement of the force of blood pushing against the walls of the arteries in your body. Systolic is the top number and diastolic is the bottom number. A normal blood pressure for adults is 120/80. High blood pressure is called hypertension, a blood pressure measurement of 140/90 or greater.

The risk of developing high blood pressure is greater if you are:

- African-American
- A man greater than 45 years of age
- A woman greater than 55 years of age
- Overweight
- Diabetic
- Have a family history of high blood pressure

There are some lifestyle choices that can raise blood pressure:

- Inactivity
- Diets with too much salt or not enough potassium
- Smoking
- Stress that is long-lasting
- Excess alcohol use
- Using some over-the-counter medications {Decongestants, antihistamines}

There are often no symptoms for high blood pressure, so people may not realize they have high blood pressure until they start having health problems. It is important for you to have blood pressure readings done routinely to screen for high blood pressure. If high blood pressure is not detected and treated, it can damage your arteries, heart, and kidneys. High blood pressure can lead to stroke, heart attack, and kidney failure. Although high blood pressure can last for a long time, or even your life time, it can be treated and controlled to avoid these health problems.

Post-transplant diabetes: Monitoring your blood glucose levels

Diabetes is an illness that effects how your body makes and uses a hormone called insulin. It is a serious disease that is associated with many health problems and complications.

Risk factors for developing diabetes include:

- Family history of diabetes
- Ethnic background of African American,
- Native American, Native Alaskan, Hispanic and Pacific Islander
- Obesity
- Inactive lifestyle
- Older age
- Abnormal blood levels of cholesterol or triglycerides
- Immunosuppressant medications

Diabetes is a significant risk for people who have had a kidney transplant. The medications that you take to prevent rejection of your transplanted kidney may increase your risk of developing diabetes. Diabetes is diagnosed by checking levels of glucose in your blood. Your physician will monitor your blood glucose levels through several types of tests. Glucose levels are high in people who have diabetes.

Sometimes diabetes can be controlled by making changes in anti-rejection medications. losing excess weight, changing eating habits, and exercising daily can also help. You may need daily Insulin shots or your diabetes may be managed with medications that are taken by mouth.

Although there is no cure for diabetes, it is treatable. If you develop diabetes after your kidney transplant, you should work with your doctor and diabetic educator to understand your care diet, and medications and to make healthy lifestyle choices.

Monitoring your Cholesterol Levels

Cholesterol is a waxy fat-like substance produced by your liver and is important for body functions such as building new cells, Insulating nerves. and producing Vitamin D and some hormones. If there is too much cholesterol in your blood, it can build up inside your blood vessels and cause heart disease.

You can control your cholesterol levels by doing the following:

- Choose lean meats and chicken
- Avoid fried foods that are cooked in hydrogenated vegetable oil
- Avoid processed food
- Use egg substitutes or egg whites instead of whole eggs
- Use low fat milk products and low fat cheese
- Increase your fiber intake through whole grain products, fruits, and vegetables
- Exercise daily

Gynecologic Examinations

It may be advised by your physician, if you are 18 years of age or older and/or are sexually active, to have a gynecologic examination every year. This examination includes a pelvic exam to detect any abnormalities of your uterus, a breast examination to evaluate changes in your breast tissue, and a Papanicolaou's smear (Pap smear) to detect any abnormalities of your cervix. Women ages 18-39 should have a professional breast exam every 3 years, or as needed, and should perform a monthly breast self-examination. Women 40 years of age and older should have a yearly mammogram and perform a monthly breast self-exam. If you have a family history of breast cancer or other risk factors your physician may want you to have a mammogram before the age of 40 or more frequently.

Prostate Screening

The prostate is a walnut-sized gland that is part of the male reproductive system. It is located in front of the rectum and below the bladder. The prostate makes the fluid that carries sperm. Prostate cancer is one of the most common forms of cancer in men. Although the cause of prostate cancer is not known, some risks have been identified. These include:

- **Age:** The risk of getting prostate cancer is greater as men get older
- **Family History:** A man is more likely to develop prostate cancer if his father or brothers had prostate cancer
- **Race:** Prostate cancer is more common in some racial and ethnic groups. It is more common in African American men than Caucasian men. Men of Hispanic, Asian, Native American, or Pacific Islander descent are less likely to develop prostate cancer than Caucasians

A blood test called the prostate-specific antigen test (PSA) is used to screen for prostate cancer. This test measures the level of a substance (enzyme) produced by the prostate and checks whether or not this level is within the normal range. Another test used to screen for prostate cancer is the digital rectal examination (DRE). For this examination, the physician inserts a gloved lubricated finger gently into the rectum to feel the back of the prostate. The physician checks the size of the gland and feels for any irregularities.

It is important that you discuss prostate screening with your physician. You should know your risk factors for prostate cancer and the pros and cons of screening to make the best decision for you.

Your doctor will advise you about when you should be screened for colorectal cancer and which test or tests are right for you. In addition to routine screening, it is very important to tell your PCP/GP about any changes in your stools or bowel routine such as an increased or decreased amount of stool, a change in color, a change in the firmness or texture of your stool (hard stools or liquid/watery stools), or the appearance of blood.

What should I know about immunizations?

Immunizations are an important part of routine healthcare for you. As an adult kidney transplant recipients have usually received all required immunizations before having their transplant, but infants and young children may not because of their age or being too ill. If you need immunizations, there are some important exceptions. You cannot receive any “live” vaccines. These vaccines contain a small amount of weakened live virus to provide immunity from that virus. Receiving a live vaccine, even though weakened, may cause serious health complications in someone who is immunosuppressed.

There are several live vaccines. The most common five vaccines that immunosuppressed patients should never receive are:

- Oral Polio (Sabin): The oral polio (Sabin) vaccine contains a live but weakened form of the polio virus that is given to provide immunity against the polio virus (poliomyelitis). The inactivated form or “killed” polio vaccine (Salk) is an injection or “shot.” This shot form of the polio vaccine should be given to transplant recipients instead of the oral polio vaccine.
- MMR (Measles, Mumps, Rubella): Adults do not usually need the MMR vaccine because they received this shot and boosters when they were children. It is given to children at 12-15 months and again at 4-6 years.
- Varivax (chicken pox or varicella vaccine): This is a live vaccine given to children around the age of 12 months to protect them against chickenpox (varicella).

Should I get the “Flu Shot?”

It is recommended that you receive the flu vaccine yearly and the pneumonia vaccine every five years. This will decrease your risk of getting the flu. The flu shot or injection is an inactivated (killed) vaccine that contains three influenza strains (types) that are expected to be seen most often in that year. Older people, very young children, and people with certain health conditions are at high risk for becoming very sick with the flu.

You are advised to get the flu shot every year. The best time to get the vaccine is in October or November, although your doctor may advise you to get it earlier. It takes about 2 weeks for protection to develop in your body and this can last for almost a year. It is recommended that your caregivers and other people in your household who have close contact with you also get the flu vaccine.

People should not get the influenza vaccine if they have had:

- A severe allergic reaction to eggs
- An allergic reaction to the flu shot in the past
- Guillain-Barre Syndrome (a disease that results in muscle weakness and sometimes paralysis)

Check with your transplant team about getting the flu shot if you are within the first three months after your transplant or if you have recently been treated for rejection. You should not get the influenza vaccine if you have a fever when you visit your doctor's office for your shot. Be sure to reschedule an appointment to get the vaccine at a later date when you are feeling better. Can I get the flu nasal spray instead of having a shot?

A new form of the flu vaccine that is given as a nasal spray has been available since 2003 for use in healthy people, ages 5 through 49 years. You as a transplant recipient with a suppressed immune system cannot get this form of the flu vaccine. The nasal spray flu vaccine contains weakened live influenza viruses instead of killed viruses. This live vaccine may place you at a high risk for complications from the flu.

Exercise

Exercise and physical activity is important to improve your overall health. It makes you feel better and can help control stress. Regular exercise can help you maintain a weight that is right for you. It can also help prevent bone disease (osteoporosis). Any physical activity that you can do is beneficial: Walking, swimming, riding a bicycle, lifting weights, playing golf or tennis, participating in yoga classes or even doing housework counts as exercise! Staying active is the key to living a full and healthy life.

Remember, it is important that you to talk with your transplant team about increasing your activity level and when to begin an exercise routine. This will depend on how well you have recovered after your transplant and other medical problems.

You should discuss your exercise program that is right for you with your doctor and transplant team so that a safe exercise plan can be developed. To be healthy and fit is an important goal, but using common sense to reach this goal is just as important. Even months or years after your transplant, exercising when you are sick with a fever is not a good idea. If you ever experience any intense pain, chest pain, or shortness of breath while exercising, you should stop exercising immediately and seek medical attention or advice.

Understanding your emotions after transplant

The transplant process can be a very difficult emotional experience for you. You may experience more emotional difficulties and stress before your transplant when you are waiting for a kidney. Or you may have more stress after transplant as you learn to cope with the changes in your life. In the early months after your transplant, you may experience a variety of emotions including anger, frustration, guilt, and depression. These feelings can affect you for different reasons and in different ways.

Some common symptoms you may experience when you are dealing with emotional problems may include:

- Feeling sad, depressed, angry, anxious, or overwhelmed
- Crying frequently or easily
- Being unable to focus or concentrate
- Not sleeping well, sleeping too much, or being unable to fall asleep
- Mood changes
- Changes in your appetite

Feeling emotional can also be related to side effects of your medications or even an underlying medical problem. Talk to your doctor and transplant team about how you feel. They will consider how you are feeling emotionally when reviewing your blood tests, medications, physical examination, and reports from procedures. It is always important to check for any medical problem that can affect how you feel. You can also help yourself. It is important to develop strategies to deal with your emotions and feelings after your transplant.

Some things you can do to help yourself Include:

- Exercise regularly and be as active as possible
- Participate in social activities with friends and family at home and in your community
- Eat a healthy diet
- Establish a good sleeping routine. Take naps if needed and get adequate rest
- Find a way to relax through music, social activities, arts and crafts, yoga, and/or meditation and deep breathing
- Recognize and understand how you feel
- Let your family and friends know that you need their support. Talk to them about how you feel Talking or just spending time with them can be helpful
- Talk to other transplant patients through support groups. Sometimes It Is helpful to talk to other people who have shared the same experience.
- Talking to a professional counselor may also be helpful. Your transplant team can refer you to someone who can help

Diet

Sodium causes your body to retain water. The sodium in your diet should be limited to (2,000 to 3,000) mg/day. A 2,000 to 3,000 mg/day diet is very limited; one teaspoon of salt is equal to approximately 2,400 mg of sodium. You should avoid fast foods, canned foods and prepackaged foods. It is very important to read the labels. It is very important not to add any salt to your food. Most foods have sodium {salt) in the food naturally. If you are taking insulin, you will need a diabetic diet. You must avoid raw fish, meat, chicken, eggs, and vegetables. Wash (and peel) fruits and vegetables before eating. Do not eat grapefruit or drink grapefruit juice. This can interfere with your immunosuppressants. You need to stay well hydrated if you are not on fluid restrictions.

Sexual activity

Sexual activity is an important part of adult life. Before your transplant you may experience a decreased desire (libido) to have sex or are unable to have sex (impotence) because of health problems. After having a transplant, both men and women find their desire and ability to have sex returns. You may be advised that you wait for six to eight weeks before resuming sexual activity. How quickly you are ready to have sex after transplant depends on how you feel. Ask your transplant doctor or coordinator when it is medically safe for you to have sex. When you are ready to resume sexual activity, it may be helpful to discuss any concerns you may have with your partner.

Practicing safe sex is important for everyone who is sexually active to avoid the risk of contracting sexually transmitted diseases (STD). You have an increased risk of getting an STD because your immune system is suppressed. Practicing safe sex is the best way to prevent STDs.

Safe sex practices include:

- Having sex with only one partner (a monogamous relationship)
- Washing your genitals before and after sex
- Always using latex condoms with spermicide
- Avoiding sex with anyone who has sores, a rash, or a foul discharge from their genitals
- Avoiding anal sex

Birth Control and Pregnancy

When you resume sexual activity after your transplant, an appropriate method of birth control should be used. Barrier methods (condoms, diaphragms, and spermicidal jellies) are most often advised. When one or more barrier methods are used, it is possible to prevent conception as well as provide protection from sexually transmitted diseases. It may be recommended by your healthcare provider to use of low-dose of contraception ("the pill"). However, oral contraceptive pills will place you at greater risk for blood clots, high blood pressure, gastrointestinal (GI) problems, coronary artery disease, and depression. Cyclosporine levels may be higher if you take Cyclosporine and oral contraception. Additionally, it is important to remember that the pill prevents pregnancy when taken correctly, but it does not protect against STDs.

Generally, becoming pregnant or fathering a child can be safe and successful for many women and men who have received kidney transplants. Pre-pregnancy counseling is important so that you can plan your pregnancy to achieve the best possible outcome for you and your baby. You may be advised by your healthcare provider that you wait one to two years following your transplant to become pregnant. This allows for a reasonable amount of time to be sure that the transplanted kidney is healthy and functioning well.

When considering pregnancy, female transplant recipients should have:

- Stable function of the transplanted kidney
- Stable level of immunosuppression
- Good kidney function
- Normal blood pressure or well-controlled high blood pressure
- Normal blood glucose levels or well-controlled diabetes
- Overall good health

If you are thinking about getting pregnant after your transplant, it is important to remember that each pregnancy has its own unique issues and possible risks. There are many issues to consider about your current health, the function of your transplanted kidney, and your medications. Planning with a complete understanding of the issues and with appropriate medical care before, during, and after pregnancy can lead to the best outcome for you and your child.

What other lifestyle issues are important after transplant?

Nutrition

A healthy diet is one that is made up of fruits, vegetables, whole grains, and low fat or fat free milk and milk products. It also includes lean meats, poultry (chicken, turkey), fish, eggs, nuts, and beans. A healthy diet should be low in saturated fats, trans fats, salt, added sugar, and cholesterol.

After your transplant you will have few restrictions or limits in your diet. Your dietary guidelines are much the same as for any person who is trying to eat healthy. If you do have other health problems, such as high blood sugar or high blood pressure, your transplant team will give you special instructions about your diet. Fad diets, diet supplements, and herbal products should be avoided.

The level of some anti-rejection medications is affected when taken with grapefruit or grapefruit juice. You should avoid all forms of grapefruit if you are taking Cyclosporine or Tacrolimus (Prograf®).

Non-steroidal Inflammatory Medicine: Ibuprofen, Advil, Aleve, Motrin, Naprosyn

Medications

After your kidney transplant, you will be taking a number of different medications. Some of these are prescribed for all patients, while others are given only as needed. Where the names of the medications are in *italics*, they are trade (brand) names; where they are not, they are generic names.

All patients will take immunosuppressive (anti-rejection) medications. These help keep your body from rejecting the new kidney by suppressing the immune system. All patients also take medicine to help prevent gastrointestinal upset/ ulcers, an antibiotic to prevent lung infections, and a medicine to kill yeast and fungi that grow in the mouth and throat. You may also be prescribed a medication to protect you against viruses. These are taken on a temporary basis until your doctor determines that they are no longer necessary. If you have problems with your blood pressure, your doctor may prescribe one or more medications to lower your blood pressure, telling your heart work under less strain. If you are not a diabetic, there is a chance for anti-rejection medications to increase your blood sugars. If your blood sugars remain too high after a transplant, you may be prescribed diabetes medications, like insulin. Diuretics, or water pills, are another type of commonly prescribed drug. They help your body get rid of the extra fluids that can raise your blood pressure and cause your heart unneeded strain. Your doctor will decide if you need to take diuretics.

The information provided on medications is not meant to take the place of advice from your doctor. If you have any questions or would like specific information about your individual treatment, please consult with your doctor. Never stop taking any medicine or change the dose unless your doctor tells you to. Never start any new medication without contacting your coordinator/physician. Do not take any immunizations or vaccinations without first checking with the transplant team.

Prevent Rejection

- Tacrolimus (Prograf®)
- Cyclosporine (Neoral®)
- Mycophenolate Sodium (Myfortic®)
- Mycophenolate Mofetil (Cellcept®)
- Prednisone (Deltasone®)

Side effects include: tremors, increased blood sugars and blood pressure, nausea, vomiting, diarrhea, increased potassium blood levels, and low magnesium levels.

- Transplant doctors will monitor blood level
- Blood pressure monitoring
- Kidney Function
- Blood sugar monitoring
- Liver function

Do NOT let any other health care provider change your dose. ONLY the transplant team can change the dose. Call your coordinator to get the “okay” if another physician (I.e. primary care provider, dentist, etc.) wants you to take a new medication.

Food interaction: grapefruit cranberry, pomegranate

- Mycophenolate Sodium (Myfortic®)
- Mycophenolate Mofetil (Cellcept®)

Side effects include: nausea, vomiting, diarrhea, decrease in white blood, red blood cell and platelet cell counts.

- Transplant doctors will monitor CBC (Complete Blood Count) and GI tolerance

Corticosteroids

- Methylprednisolone (Solu-Medrol®) - IV
- Prednisone (Deltasone®) - Oral

Why do we use steroids in transplant?

- Suppress immune system
- Give after meals or with food/milk to avoid stomach upset

Corticosteroids: Side Effects

- Acne
- Increased appetite
- Mood changes
- Edema
- Increased blood sugars, blood pressure and cholesterol
- Impaired wound healing
- Osteoporosis
- Stomach ulcer
- Weight gain

Preventing Infections

Because we have suppressed the immune system, you are at risk for Infections, Sulfamethoxazole/Trimethoprim (Bactrim®)

- Protects you from Pneumocystis Jiroveci pneumonia
- Alternative medications are available if you are allergic
- Take for 1 year
-

Valganciclovir (Valcyte®)

- Protects you from viral infections (Cytomegalovirus)
- Take for 6 months

Nystatin or Clotrimazole Troches (Mycelex®)

- Protects you from fungal infections (thrush - white film in mouth)
- Use after meals
- Take for 3 months

Always Remember:

- Know your medications
- Be compliant with your medications
- All medications have to be cleared by your kidney transplant team
- Do not take herbals and dietary supplements

Notes

Notes