

Congratulations!

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A University Health System & UT Health Science Center Partnership | San Antonio

Dear Patient: Congratulations! You have been given the gift of life!

Receiving a transplant is a marvelous gift and the Transplant Team is here to assist you in taking care of that gift.

Transplant Team members include the surgeons, medicine physicians, nurses, discharge coordinator, patient educator, dietitian, transplant pharmacists and social workers.

This manual is designed to help you care for yourself following your transplant. As you read the following information, feel free to ask questions of your Transplant Team.

Understanding the information in this manual is important.

Transplant Team members will meet with you during your hospitalization to help you learn this information. Here are some suggestions that may help you learn:

- Listen to the Transplant Team and ask them questions about things you don't understand.
- Study every day.
- Ask a family member or friend to study with you.

We want you to be able to return to your home and family in the best possible health to enjoy an active and productive life.

You must take your prescribed medications, follow your diet, exercise, and monitor yourself for signs and symptoms of infection and rejection. By working as a team, you will achieve the best possible outcome from your transplant.

Tania S. Gonzales
Liver Transplant Recipient, 2002

Tim Nevil
Kidney Recipient, 2001

José David Aguirre
Liver Transplant Recipient, 2001



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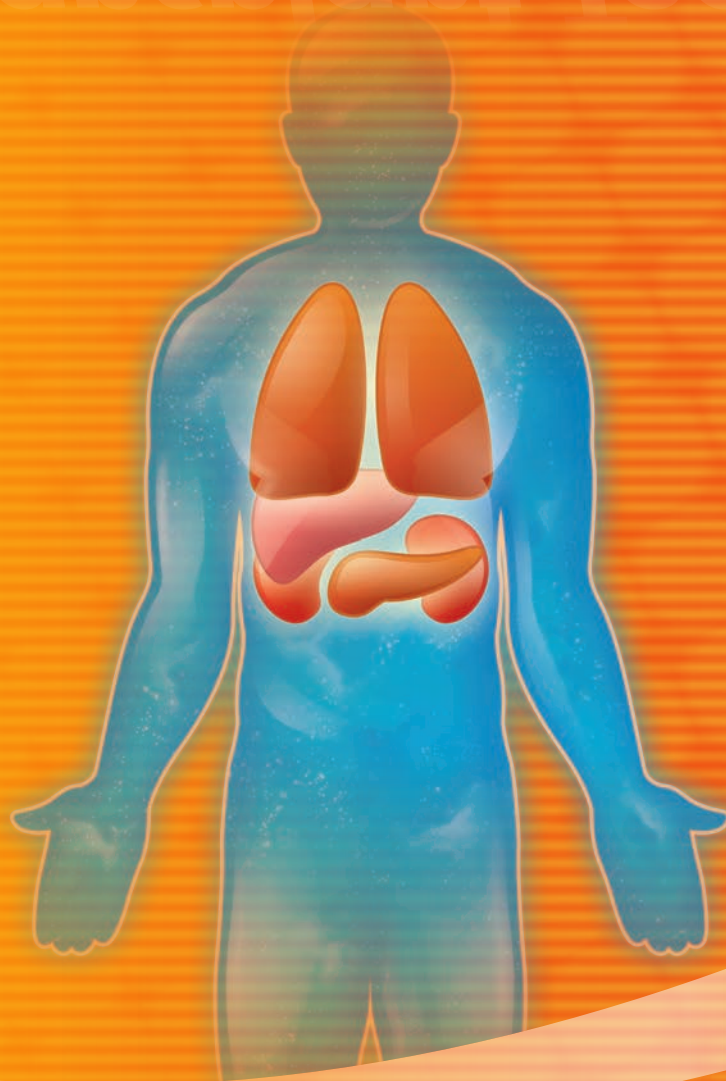
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Contacting the **Transplant Team**

transplant team



Contacting the Transplant Team

Communication between you and the Transplant Team is very important. It is your job to inform them of any problems or concerns that you have after your surgery.

When to Call

Notify the Transplant Team if you experience any of the following:

- Signs and symptoms of rejection
- Signs and symptoms of infection
- Prolonged nausea, vomiting and/or diarrhea
- Unable to take medications by mouth due to illness
- Feel you are having a reaction to your medications
- Any unusual symptoms or side effects
- Have a reason to take pain relievers, cold remedies or other pills not currently prescribed for you by the Transplant Team.
- Have trouble understanding how to take your medicines
- Exposure to mumps, measles, chicken pox or shingles
- Unusual weakness or light-headedness
- Emergency room treatment or hospitalization
- Needing immunizations
- Needing new prescriptions or refills on medications
- Need to change your clinic appointment

Calling the Transplant Clinic

Call the Transplant Clinic between the hours of 8:00 a.m. and 4:00 p.m.

210-358-4500 / 1-888-336-9633 (toll free)

Give the telephone receptionist your name, telephone number and the reason for your call. The Transplant Nurse will return your call within a few hours. If voicemail answers, please leave a message.

Calling Nurse Link

Call NurseLink after hours and on weekends at **210-358-3000**. NurseLink is a twenty-four hour health information and assistance service of University Health System. They are able to give you advice or will contact a physician on the Transplant Team to assist you. Inform them that you are a transplant recipient when you call. Lung recipients will be transferred to Cardiothoracic Surgery.

In An Emergency: CALL 911

In the event of a life-threatening emergency, such as chest pain, breathing problems, sudden weakness on one side of the body or you think you are having a heart attack, call **911** and have the emergency medical team take you to the nearest hospital emergency room. After they have stabilized you, they will contact the Transplant Center for further guidance on your transplant care if required.

Organ Transplant Manual

Transplant Team Telephone Numbers

Transplant Clinic

University Transplant Center
4502 Medical Drive, MS 18
San Antonio, TX 78229

Phone: (210) 358-4500 Toll free: 888-336-9633

Fax: (210) 358-4265

Clinic Office Hours

Monday through Friday
8:00 am until 4:00 pm
Closed on holidays and weekends

Transplant Office

University Transplant Center
4502 Medical Drive, 11th Floor
San Antonio, TX 78229

Phone: (210) 567-5777

Social Workers/Counselors

Phone: (210) 567-5777

Name:

Transplant Pharmacy

Inpatient Pharmacist

Phone: (210) 743-3903 or
(210) 743-3902

Outpatient Pharmacy of Choice

Name:

Phone:

Fax:

Refill Line:

Discharge Coordinator

Phone: (210) 567-5777

Name:

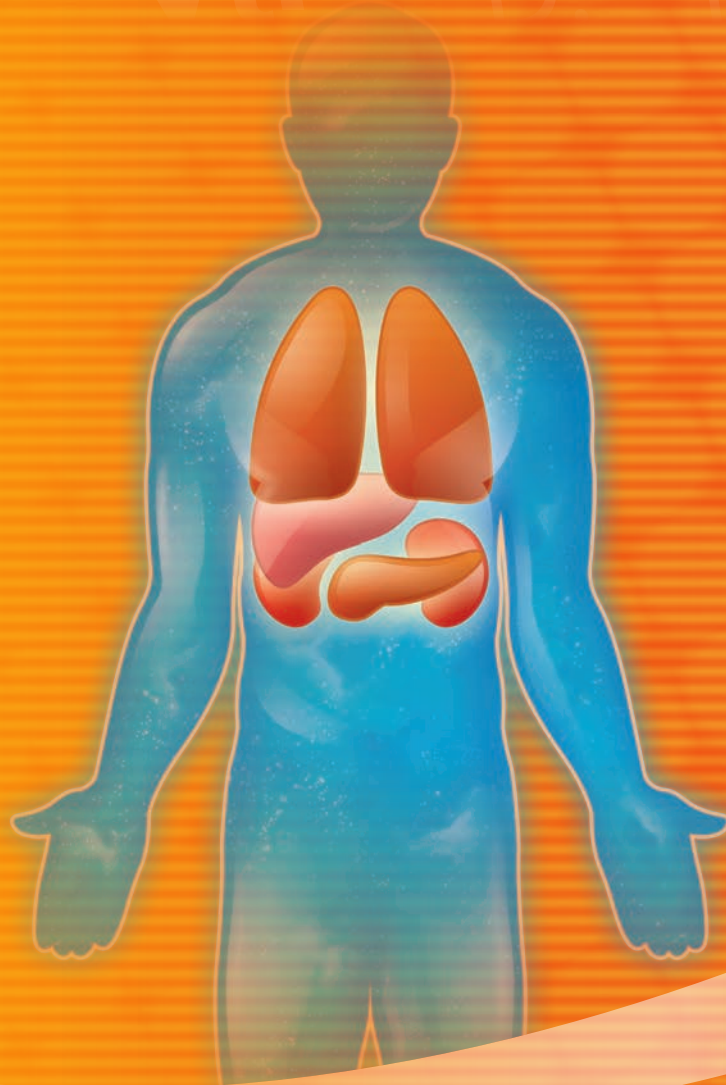
Patient Educator

Phone: (210) 567-5777

Name:

Care After **Discharge**

Care After Discharge



Care After Discharge

Leaving the hospital can be uncomfortable if you feel you do not know what to do when you get home.

The following information will give you guidelines on how to monitor for any warning signs and what steps to take if needed.

Please follow your post-op instructions carefully and take your medications as prescribed. Keep the transplant physicians informed of any difficulties you experience and keep all clinic appointments.

Home Monitoring

The First Three Months After Transplant

After transplant, and for the remainder of your life, you will be at risk for rejection and infection.

The period of highest risk for rejection episodes and infection is the first 90 days after your transplant.

Temperature

- Take your temperature every morning and evening and write it down in the diary in the back of this book.
- If it is 100°F or greater, repeat in one hour. If it remains elevated, inform the Transplant Clinic. After 5:00 p.m., call Nurse Link and ask to speak to the Transplant Resident on call. If you are a lung recipient, ask for the Cardiothoracic Resident on call.
- If you are sick with an elevated temperature (greater than 101°F), come to the Emergency Room to see the Transplant Surgery Resident on call.

Pulse

- You will be taught how to check your pulse before leaving the hospital.
- If your pulse is less than 60, or greater than 120, call the Transplant Clinic.

Blood Pressure

- You will learn how to check your blood pressure before leaving the hospital.
- Check your blood pressure every day in the morning and evening and write it down in the diary in the back of this book.
- If the systolic (top) number is greater than 160 or the diastolic (bottom) number is greater than 110, take the blood pressure again in one hour.
- If after one hour, the systolic is still greater than 160 or the diastolic is greater than 110, call the Transplant Clinic at **210-358-4500**.
- If the systolic (top) number is less than 110 or the diastolic number is less than 60, do not take any blood pressure medicine and call the Transplant Clinic.
- You will be instructed at discharge if you should take your blood pressure more or less often.

Weight

- Weigh yourself every morning before breakfast on the bathroom scale wearing the same type of clothing.
- Write this weight in the diary in the back of this book.
- If you need to gain weight, the maximum is one pound per week or five pounds per month. If you need to lose weight, the same rule applies.
- If you are gaining more than two pounds per day, call the Transplant Clinic.

Care After Discharge

Blood Tests

- At the time of discharge, if you are going to have your lab tests done at another hospital, we will schedule those tests for you at the first clinic visit.
- You will be given a physicians order slip with the name of the test to be done.
- Please make arrangements with that lab to have the blood drawn and the results faxed to the clinic at **210-358-4265**.

Blood Sugar

- Patients who have diabetes will continue to monitor their blood sugar levels before meals and at bedtime.
- If your blood sugars are running high at discharge due to the effects of medications, you may be taught to check your blood sugar levels even though you were not a diabetic before your transplant.
- **Contact the Transplant Clinic for levels less than 60 or greater than 250 for several tests.**
- Review the section in this manual on *Diabetes Care*.

Pulmonary Function Monitoring (PFT) for Lung Transplants

- Lung transplant recipients may be asked to check and record their pulmonary function daily.
- A special machine (spirometer) used to measure this will be obtained for you by the Clinic lung coordinator if this test is ordered by the physician.

Wound Care

- Take a daily shower. Wash your incision with soap, rinse well with clean water, and gently pat your skin dry.
- **DO NOT** soak in a bath tub.
- **DO NOT** apply antibiotic ointment, lotion, oils or creams to your healing incision.
- Keep your incision clean and dry. The staples will be removed three weeks after surgery at a clinic visit.
- Small, thin, tape strips (steri-strips) are placed after the staples are removed. Allow these to fall off by themselves. You can shower with these strips. Gently pat your skin dry.
- If you have an **open wound** at the incision check with the Transplant Physician prior to showering.

FOR MOST OPEN WOUNDS:

- Remove all dressings and clean wound in the shower.
- After showering, apply clean dressings as directed.
- If you are sent home with a wound vac, you will be set up with a home health agency to help with its management.
- **If you have a fever or notice redness, swelling, tenderness or drainage at your incision, or if the wound seems to be separating or opening, call the Transplant Clinic.**

Avoiding Constipation

- Take stool softeners as directed to avoid straining and pushing when having a bowel movement.
- Never go longer than 48 hours without a bowel movement. There could be a serious problem if it is not treated properly.
- Notify the physician in the Transplant Clinic if abdominal pain persists or if you develop a swollen or hard, tender abdomen.
- Usually, bowel patterns can be expected to return to normal when you are off pain medications, eating your normal diet, and back to your regular activity levels.

Care After Discharge

Infection

You are taking medications that suppress your immune system. This is the system in your body that helps you fight infection; therefore, you will be more susceptible to infections. The key to successful treatment of infection is to notice the signs and symptoms as early as possible. It is also very important that you monitor and protect yourself from infection.

Signs and Symptoms of Infection

Report any of the following signs and symptoms to the Transplant Clinic:

- Fever over 100.5° F
- Sore throat
- Cough or shortness of breath
- Chest congestion, coughing up colored sputum
- Bloody or cloudy urine
- Red or draining skin opening or incision site (pus)
- Pain, burning or increased frequency with urination
- Sudden onset of nausea or vomiting
- Diarrhea (sudden onset, three to four loose, watery stools in 24 hours)
- New tenderness or discharge over wound or incision
- New vaginal discharge or penile discharge

Avoiding Infections

- Wash your hands with soap and water, especially before eating and taking your medicines, before and after changing your dressing, after using the bathroom and after petting animals.
- Avoid crowded areas (such as malls, theaters, airplanes) for three to six months after transplant.
- Wear a mask when coming to clinic visits or when in crowded areas for the first three months.
- Avoid people with colds, flu or other contagious illnesses.
- **DO NOT** share drinking glasses or eating utensils with other people.
- Wash dishes and eating utensils with **HOT** water and detergent or a dishwasher.
- Avoid working with dirt or soil for 6 months after transplant.
- **DO NOT** handle animal waste.
- If you have young children or school age children, ask the school nurse to inform you when any communicable disease outbreak (chicken pox, measles, etc) that occurs in the school.
- Avoid construction areas and major home remodeling (removing carpet, wall repair) for three to six months after transplant.
- Call the clinic before you take any over the counter medications.
- Use common sense.

Long-term Monitoring

Usually the risk of infection decreases after the first three months. The frequency of clinic visits, home monitoring and some precautions are also decreased or eliminated.

After the first three months, take your temperature, pulse and your blood pressure anytime you are not feeling well. Weigh yourself once a month.

Care After Discharge

Rejection

Rejection is a normal defense mechanism. The body tries to get rid of anything that it considers “foreign.” After your organ is transplanted, your body tries to reject it. In order to prevent rejection, we will give you “anti-rejection” or immunosuppressant medications. These medications will help your body control the cells that try to reject your new organ.

Rejection occurs most frequently in the first 3 months after surgery; however, your transplanted organ may reject at any time. If detected early, most rejection episodes are treated successfully. The diagnosis of rejection is made by your symptoms, blood studies and other diagnostic procedures, depending on your type of transplanted organ.

You may not experience any of the listed signs and symptoms of rejection but you should be aware of them. If you suspect that you have a problem, contact the Transplant Team.

Signs and Symptoms of Rejection

- Fever (greater than 100.5° F)
- Chills, body aches, flu-like symptoms
- Pain or tenderness over transplanted organ
- Large increase or decrease in blood pressure
- General sense of “not feeling well”
- Feeling more tired or fatigued
- Weight gain greater than two to three pounds overnight
- Fluid retention or swelling of legs or feet
- Decreased urine output (*kidney transplant*)
- Dark tea colored urine (*liver transplant*)
- Light colored or clay colored stools (*liver transplant*)
- Yellow color to skin or eyes (*liver transplant*)
- Shortness of breath or increased difficulty in breathing (*lung transplant*)
- Increase or change in the quality of lung secretions (*lung transplant*)

Care After Discharge

Diet

The dietitian will counsel you after your transplant and develop nutrition guidelines based on your individual nutritional and medical needs. The following dietary guidelines are given to you to supplement the dietitian's recommendations. The diet followed at home should be low fat, low sodium and with limited sweets (candies, cookies). Protein intake is important for wound healing.

Fats

People who are on medications like prednisone, Prograf®, Rapamune® and Cyclosporine need to cut down on fat. Too much fat in the blood, such as cholesterol and triglycerides, can cause a heart attack or stroke.

Health Tips

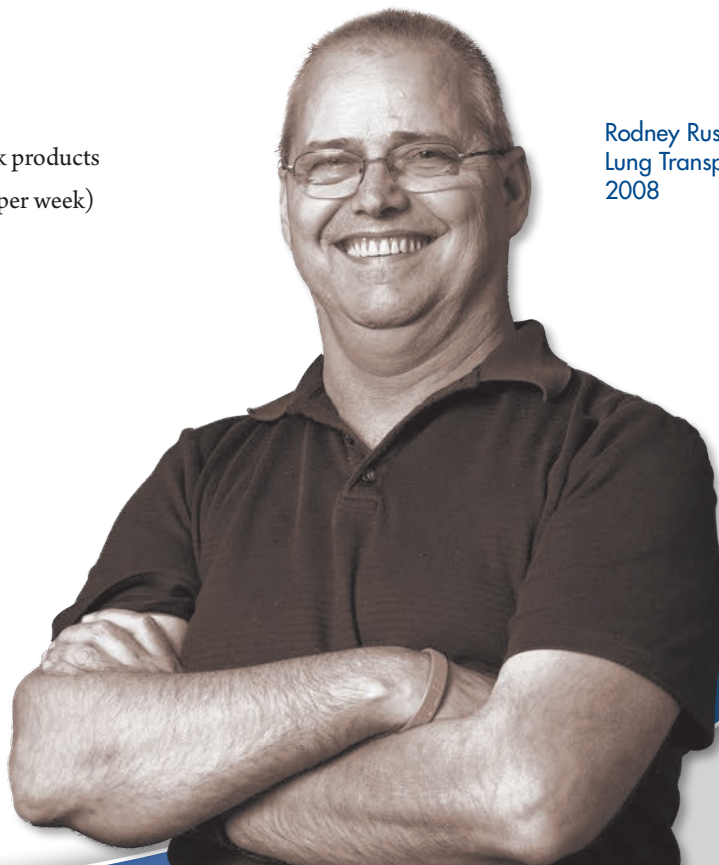
- Eat a low fat diet
- Increase fiber in your diet
- Eat more fish
- Bake, broil or grill all meats instead of frying
- Use canola oil or olive oil

Limit

- Mayonnaise
- Meats with fats not removed
- Cheese, cream sauce and other whole milk products
- Egg yolk (no more than three whole eggs per week)
- Regular salad dressing

Avoid

- Restaurants for the first three months, especially buffets (three to six months)
- Bacon and sausage
- Butter, lard, shortening, coconut oil and palm oil
- Whole milk
- Poultry skin



Rodney Rust
Lung Transplant Recipient
2008

Care After Discharge

Salt

Ask your doctor about using salt replacements. Some medicines can make your body hold water and sodium. This may cause high blood pressure. A small amount of salt can be used for cooking unless you have high blood pressure.

Avoid or Limit

- Table salt
- Smoked, cured or processed luncheon meats
- Salted snacks such as chips, pork skins, pretzels, peanuts, etc.
- Sauerkraut, pickles, olives, foods packed in brine
- Canned vegetables, vegetable juices, meats and soups (unless labeled “low sodium”)
- Salted meat tenderizers, monosodium glutamate (Accent®), seasoning salt
- Bouillon and dehydrated soups
- Frozen dinners and other convenience food items (unless labeled “low sodium”)
- “Instant” and/or “five-minute” cooking foods

Sweets

Some medicines like Prednisone cause an increase in blood sugar. These medicines may also increase your appetite and cause weight gain. It is important to eat balanced meals and avoid high fat and high sugar foods. If necessary, please refer to the diabetes section.

Fruits and Vegetables

In general you can eat all fruits and vegetables; however, never eat or drink grapefruit or products that contain grapefruit (Sunny Delight®, Fresca®, Squirt®). If you are unsure, check the label. Grapefruit will make some of the medicine levels (Cyclosporine®, Prograf®, Rapamune®) in your body too high. Fresh or frozen fruits and vegetables are better than fruits packed in heavy syrup or sauces. In addition, fresh fruits and vegetables are high in fiber. Make sure all fresh vegetables and fruits are washed well. Eat in moderation.

Meat and Meat Substitutes

Various foods are included in this group such as: fat free or low fat cheese, lean meat, poultry, fish, dried peas and beans, eggs, egg substitutes, tofu, nuts and peanut butter. These foods provide the protein necessary for healing and aid in preventing infections and muscle breakdown after surgery. Limit your meat intake to no more than six to eight ounces a day. A deck of cards is about the size of three ounces of meat.

Care After Discharge

Milk and Milk Products

Many recipients need calcium supplements. If you take Prednisone for a long time, your bones can become weak and easy to break (osteoporosis). It is important to have three to four servings of low fat dairy products a day, such as skim milk and low fat yogurt. If you cannot take milk or milk products, your doctor may order a calcium supplement.

Beverages

All transplant patients should avoid alcohol and limit carbonated beverages. Drink fluids when you are thirsty. Depending on where you live, you may have to drink bottled water. The Transplant Team will advise you if this is necessary. Liver transplant recipients and those with a history of alcohol abuse should stay away from alcohol completely.

Vitamins

A multivitamin is recommended to prevent vitamin and mineral deficiencies that may occur. Nutritional supplements like Boost®, Ensure®, Resource DM® and Carnation Instant Breakfast® may be added to the diet if your appetite is poor.

Nutritional supplements should never take the place of a meal.

Food Safety

It is important to practice safe food handling and sanitary techniques:

- Always wash hands thoroughly when preparing foods.
- Wash and rinse all fruits and vegetables (use mild detergent and warm water).
- Use separate cutting boards for raw meats and vegetables.
- DO NOT eat at “buffet” style restaurants for the first three to six months after transplant.
- Cook all meats until well done (160°). Avoid rare or raw meat. Do not eat sushi, raw oysters or uncooked eggs.
- Keep hot foods hot and cold foods cold until ready to eat.
- Refrigerate all leftovers immediately. Date and label all food products.
- Reheat leftovers only once and throw the rest away. “When in doubt, throw it out.” Don’t put yourself at risk for food poisoning.
- Lung transplant recipients should not have fresh ground pepper applied to food in their presence.



*Tammy Johnson
Liver Transplant Recipient
2006*

Care After Discharge

Exercise and Rehabilitation

A daily exercise routine is essential!

Physical Therapy

After transplant a physical therapist may visit you daily to help you start exercising and strengthening your muscles. The sooner you increase your activity, the sooner you will recuperate and avoid complications. Sometimes you will find that your muscles, especially those in your legs, are weak after surgery. Exercise is the only way to improve the strength of your muscles.

Before starting on any exercise program, remember to check with the Transplant Team.

Here is a list of what you may do after you go home:

- Walking. This is an excellent activity for you immediately after surgery.
- Riding a bicycle.
- Strengthening and endurance exercises provided by the physical therapist.

Activity Restrictions for the First Three Months

- No lifting more than five to eight pounds (one gallon of milk).
- No straining or pulling of the abdominal/chest muscles with sit ups or similar exercise.
- Use leg muscles instead of abdominal muscles.
- Swim (only after your wound has completely healed).
 - > Avoid hot tubs, lakes, rivers, streams or oceans
 - > Swim in a clean, chlorinated pool

Driving Restriction

DO NOT drive for six to eight weeks or until the physician in the Transplant Clinic has said you can drive safely.

Inpatient Rehabilitation

Patients, who need more intensive physical therapy and conditioning in order to be independent and function at home, will be transferred to an inpatient rehabilitation facility when possible. Attending weekly outpatient physical therapy may be an option for other patients.

Returning to Work

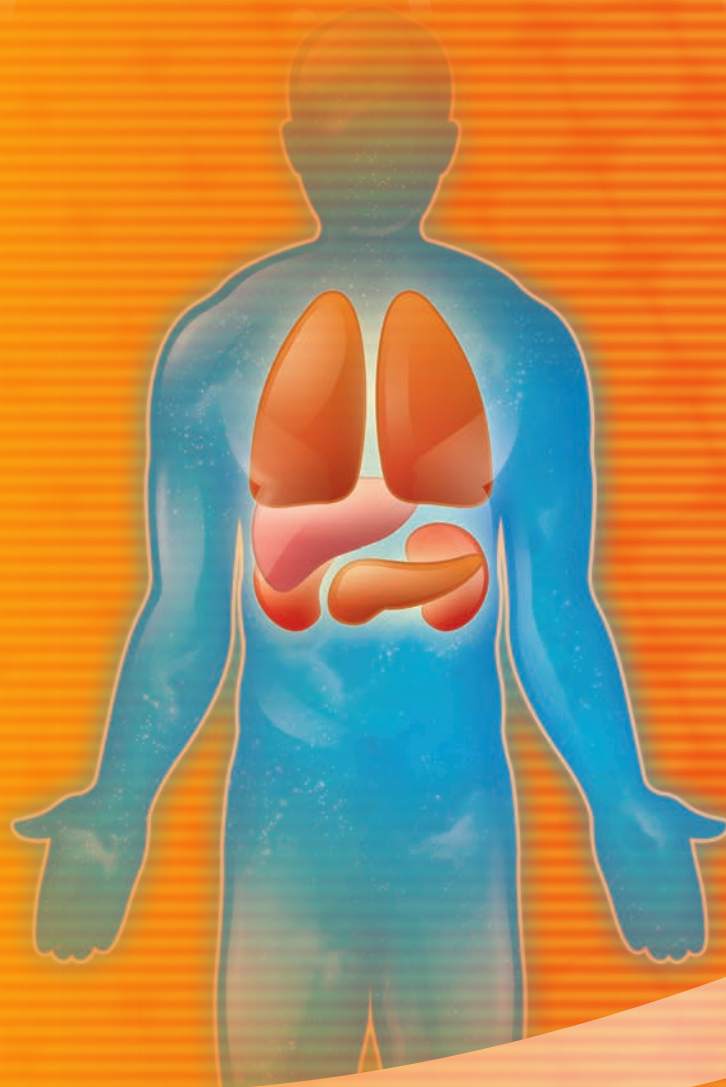
We encourage you to return to work as soon as possible; however, some patients are restricted from work for as many as six months. Ask the Transplant Physician in Clinic when you can safely return to work.

Long-term

Most patients return to normal activity a year or so after transplant, including many sports. Always ask the Transplant Physician if you have any particular long-term activity restrictions.

Transplant Clinic **Appointments**

Appointments



Transplant Clinic Appointments

After you are discharged from the hospital

You will be seen frequently in the Transplant Clinic at University Hospital. You should always be in clinic by 8 a.m. and can expect to spend three to five hours at each appointment.

Clinic Routine

WHAT TO BRING TO THE CLINIC:

- Transplant Manual with your diaries of self monitoring
- All medications in original bottles
- Medication box
- Your current insurance information

HAVING YOUR BLOOD WORK OR LABS DRAWN:

To decrease your time in clinic, it is possible for you to have your blood work done before your clinic visit as directed by your provider. Obtain the proper request slips from the clinic staff in order to have this done.

If you live a long distance from the Transplant Clinic, you can make arrangements for your labs to be drawn in your local area. The results of these labs must be faxed to the Transplant Clinic before the day of your clinic visit. Ask the clinic staff post transplant coordinator to help you make these arrangements.

When you come to your clinic appointment, let the clinic receptionist know the date you had your blood work drawn.

IF YOU HAD YOUR BLOOD WORK DONE PRIOR TO YOUR APPOINTMENT DAY:

- Check into Admissions at University Hospital by your appointment time.
- After you have checked in with Admissions, proceed to the 8th floor Transplant Clinic via the “D” elevators.

IF YOU HAVE NOT HAD YOUR BLOOD WORK DONE:

- Check into Admissions on the 1st floor of University Hospital by 8:00 a.m.
- Have your blood drawn by the lab as directed.
- **Do not eat or drink anything unless directed by the Transplant Clinic staff.**
- **Do not take any of your medications until your blood is drawn.**
- After you have had your blood drawn, proceed to the 8th floor Transplant Clinic via the “D” elevators.

WHILE YOU ARE WAITING IN THE CLINIC:

- Your blood pressure, temperature and weight will be measured by the clinic staff.
- Your patient diary, medication sheets, and medications will be reviewed.
- Let the staff know if you need new medication prescriptions or refills, or if you need to speak with a social worker, dietician, or pharmacist.

DISCHARGE FROM THE CLINIC:

- You will be given an appointment date and time for your next visit. Please DO NOT leave the clinic without knowing when your next appointment is scheduled.
- Your medication sheet will be updated, including dose and schedule changes as needed.
- Pick up any refills or new prescriptions at the Transplant Center pharmacy if your medications are dispensed from there.
- Have your parking ticket validated for free parking at the clinic reception desk.

Transplant Clinic Appointments

Changing Your Appointment

To change a clinic appointment, call the Transplant Clinic at: **(210) 358-4500** or **1-888-336-9633** (toll free), to be transferred to the clinic. Please leave a message if necessary.

Clinic Appointment Parking

- Parking is available in the parking garage in front of University Hospital.
- Parking is free for transplant-related visits with a validated ticket. Have your ticket validated before you leave the clinic.
- Shuttle service is provided to and from the parking garage and University Hospital.

Overnight Lodging

For information about hotels or motels where you can stay, please contact your Transplant Social Worker at **(210) 567-5777** or **1-888-336-9633**.

Long-term Follow-Up

Most patients return to their primary care physician or referring physician for long-term care. Some medical problems may require referral to other medical specialty physicians; for example: diabetes, heart disease, kidney problems, etc.

You should have the following exams and tests performed yearly:

- Physical examination
- Eye examination
- Skin testing for tuberculosis
- Dental examination
- Flu vaccine
- Dermatology examination
- Colon cancer screening
- Chest x-ray
- EKG
- Mammogram
- PAP smear

Have all medical notes and results of labs and exams faxed to the Transplant Clinic at **(210) 358-0616**.

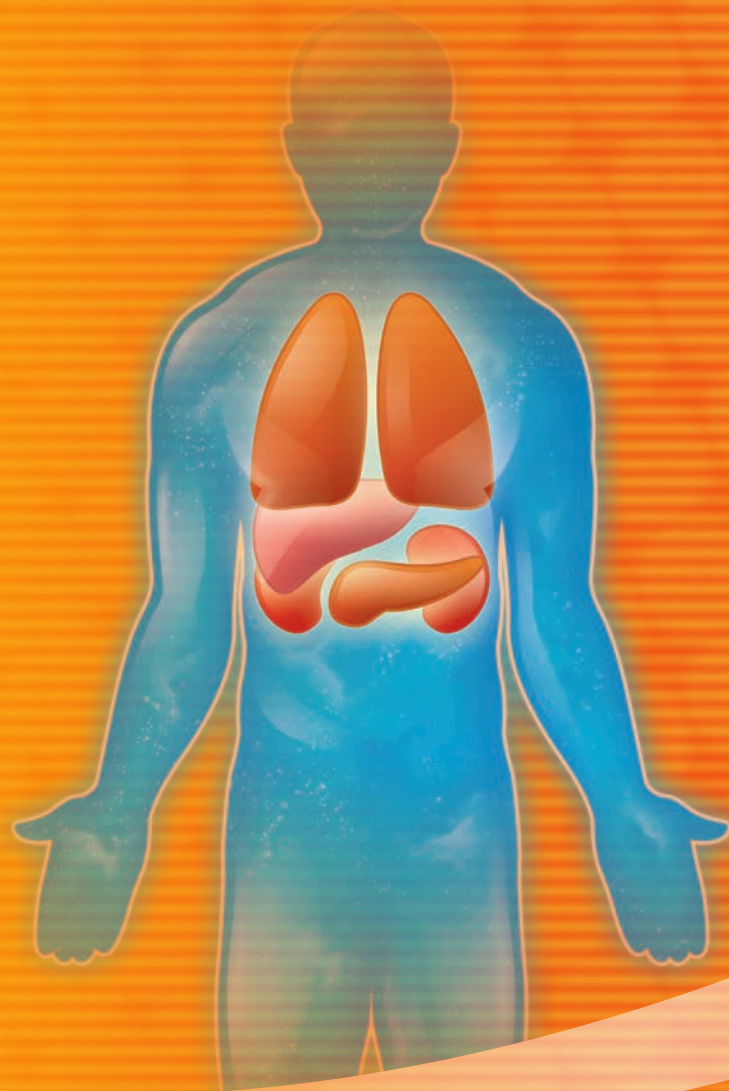
You should be seen by the Transplant Clinic at least yearly, near the anniversary date of your transplant surgery. Call and make that appointment at the appropriate time.

Elective Surgery

Notify the Transplant Clinic ahead of time if you are scheduled for any surgery.

Medications

Medications



Medications

This is a guide to understanding your medications.

It is not intended to be medical advice for any particular problem. You must follow instructions given to you by the Transplant Team and you must be responsible for your medications.

We will help you learn your medications before you are discharged from the hospital. We recommend that your family or friends help you too. *Every drug has at least two names.* The Transplant Team may talk about your medication using one name, but your prescription bottle may have the other name printed on the label. To avoid confusion regarding your medication, try to learn both names for each drug. The pharmacist will give you a final Medication Sheet at discharge. To prevent mistakes, **keep the final sheet** and throw away all practice sheets.

The medications have side effects that often change or decrease after a time. You may not experience all of the listed side effects. However, if you suspect you do have any problems with these medications, talk with the Transplant Team.

If you are pregnant or breastfeeding, the benefits of taking these medications must be weighed against the potential problems to you, your fetus or your infant. **Talk with the Transplant Team immediately if you think you are pregnant or if you are considering getting pregnant.**

General Post-Transplant Medication Guidelines

- Take all medication exactly as prescribed. **DO NOT stop taking your medication** or change your dose unless the Transplant Team tells you to do so.
- **DO NOT** cut, crush or chew a medication unless the Transplant Team pharmacist says it is safe to do so.
- Transplant drugs can interact with many other medications. **DO NOT** take any new medicine or over-the-counter medications without checking with the Transplant Team first.
- Store your medicine in a cool, dry place or according to special storage instructions given to you by your Transplant Team pharmacist. **DO NOT** store your medicine in the kitchen, bathroom or where there are extreme changes in temperature or humidity (windowsill or in a car).
- Keep all medications out of the reach of children.
- Continue taking your antibiotic for the full course of therapy until all the medicine is gone. **DO NOT stop taking antibiotics when you feel better.**

Medications

Never run out of your medicine!

Be prepared and have enough medication for weekends, holidays and vacations from home. Use the following guidelines to ensure that you always have your medicines.

Refills

- If you have refills, order them with your pharmacy at least five business days (Monday–Friday) in advance.
- The pharmacy may have to order a drug that is not in stock which may take one to two days.
- If your pharmacy mails your medications, order them seven to ten days in advance. In some cases, delivery will not be made unless there is someone home to receive the medication.

New Prescriptions

- If you have no refills, please contact the Transplant Clinic for a new prescription.
- **New prescriptions take longer to process. Call one business week (Monday–Friday) in advance of when you need the medicine.** Allow two business days for the clinic to obtain the prescription. Then allow two business days for the pharmacy to process the new prescription.
- Extra delay will occur when a prescription is ordered on non-business days, like weekends or holidays.

Remember

- Too little medication may cause rejection.
- Too much medication may hurt your kidneys or your body.
- If you miss a dose of your medicine, call the Transplant Team for advice.
- If you have a pill box, remember that it is not child-proof. Keep your medicine away from small children.
- When the Transplant Team changes your drug or dose, update both your Medication Sheet and your pill box, carefully adding or removing pills as necessary. Use a pencil to mark your Medication Sheet or ask the clinic for a new list.
- If a member of the Transplant Team says to “half your dose,” check with your pharmacist about how to do this safely. This may require filling a new prescription, depending upon the drug.
- If you are enrolled in a drug study, bring all drug containers, whether empty or full, to the 12th floor Transplant pharmacy when picking up a refill.
- If your medications look different when you receive them from the pharmacy, ask the pharmacist. If your immunosuppressant medications are changed from ‘Brand Name’ to ‘Generic’, call the Transplant Clinic to see if additional blood testing is required to make sure your blood levels are staying in the correct range.

Prescription and Medication Benefits

- Before changing insurance companies, talk to a Transplant Team Social Worker to ensure good and continuous prescription benefit coverage.
- If you lose your Medicare, Medicaid or private insurance, immediately contact the Transplant Team Social Workers so that further assistance can be provided.
- **Never go without your medications because you are unable to buy them.** Call the Transplant Social Workers for help.

Medications

Learn Your Transplant Medications

Your medications can be divided into three classes. Learn about the medications you are currently taking rather than all of the information. Examples of each class are listed below.

1. Anti-Rejection or Immunosuppressive Drugs

These medications work together to help prevent rejection. Your body sees your transplanted organ as “foreign.” The anti-rejection or immunosuppressive drugs help your body accept your transplant. You will have to take one or more of these drugs for the rest of your life:

- **Prograf®**
(Tacrolimus)
- **Neoral®, Gengraf®**
(Cyclosporine, modified)
- **Rapamune®**
(Sirolimus)
- **Cellcept®**
(Mycophenolate Mofetil)
- **Imuran®**
(Azathioprine)
- **Deltasone®**
(Prednisone)

2. Anti-Infective Drugs (Infection-Fighting Drugs)

Since your immune system is weak because of your transplant, anti-infective drugs help fight infection that you would normally fight yourself, but you will still need to practice smart hygiene habits like regular hand washing. These may include medications to protect you from bacterial, viral or fungal infections:

- **Septra®, Bactrim®**
(Sulfamethoxazole/Trimethoprim)
- **Nebupent®**
(Pentamidine)
- **Mepron®**
(Atovaquone)
- **Zovirax®**
(Acyclovir)
- **Valcyte®**
(Valganciclovir)
- **Mycostatin®**
(Nystatin)
- **Sporanox®**
(Itraconazole)
- **Nizoral®**
(Ketoconazole)
- **Vfend®**
(Voriconazole)

3. Protective Drugs

This class includes some, but not all, of the medications to protect you from possible side effects of transplant medications:

- **Blood pressure medicine**
- **Ulcer protection medicine**
- **Vitamins or supplements**
- **Laxatives**
- **Pain medicine**

You may also need to continue taking some medication that you were on before your transplant which may include:

- **Blood pressure medicine**
- **Cholesterol medicine**
- **Diabetes medicine**
- **Anti-anxiety medicine**
- **Anti-depressant medicine**
- **Sleep aid**
- **Thyroid hormone**
- **Estrogen or other hormone supplements**

Medications

CLASS: Anti-Rejection or Immunosuppressive Drugs

NAME: Prograf® (Tacrolimus)

Dosage Form:



0.5mg
Light Yellow



1mg
White



5mg
Grayish/red

When to Take

Usually taken twice a day, 12 hours apart.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking Prograf® on your own:**

- Headache
- Tremors or jitters
- Numbness and tingling in hands or feet
- Difficulty sleeping
- Nightmares
- Loss of appetite
- Hair loss (temporary)
- Kidney damage
- Diabetes (high blood sugar)

Special Instructions

- Take your doses at the same time every day, 12 hours apart.
- Take with or without food. **DO NOT drink or eat any form of grapefruit (juice, Fresca®, fruit, pills)** Grapefruit can increase your drug blood level and high levels can damage your kidneys.
- Many other medications (prescribed or over-the-counter) can affect the Prograf® blood level. Check with the Transplant pharmacist before taking any new medications.
- **DO NOT** take an antacid (Maalox®, Mylanta®, Amphogel®) unless approved by the Transplant Team.
- If you miss a dose, **DO NOT** try to catch up on your own. Call the Transplant Clinic for advice.
- Never let medicine run out between refills. Be sure to take enough medication with you whenever you are going to be away from home.
- **On days when you come to clinic, your blood is tested for a Prograf® level. On those mornings, do not take your morning dose of Prograf® until after your blood has been drawn.**
- If your dose of Prograf® needs to be changed, you will be notified by the Transplant Clinic staff.
- If your Prograf® changes in appearance when you get it from the pharmacy, call the Transplant Clinic. You may require blood testing to make sure your blood levels are staying in the correct range.

Medications

CLASS: Anti-Rejection or Immunosuppressive Drugs

NAME: Neoral® or Gengraf®
(Cyclosporine, modified)

Dosage Form:

There are numerous generic equivalent medications.



- Neoral® is the brand name for cyclosporine, modified.
- Gengraf® is the preferred generic of cyclosporine, modified.
- Sandimmune® is not a generically equivalent form of cyclosporine, modified and should not be substituted.
- If your pharmacy gives you a different cyclosporine than Neoral® or Gengraf®, tell the Transplant Clinic.

When to Take

Usually taken twice a day, 12 hours apart.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking cyclosporine on your own:**

- Tremors
- Excessive hair growth in unwanted places
- Headaches
- Enlarged or bleeding gums (gingival hyperplasia)
- Diabetes (high blood sugar)
- High blood pressure
- High cholesterol
- Kidney damage

Special Instructions

- Take your doses at the same time every day, 12 hours apart.
- Capsules should be kept in their foil packets until ready to use.
- Due to possible gum enlargement, practice good dental hygiene (brushing and flossing regularly).
- Take with or without food. **DO NOT drink or eat any form of grapefruit (juice, Fresca®, fruit, pills)** Grapefruit can increase your drug blood level and high levels can damage your kidneys.
- If you miss a dose, **DO NOT** try to catch up on your own. Call the Transplant Clinic for advice.
- Never let the medicine run out between refills. Be sure to take enough medication with you whenever you are going to be away from home.
- **On days when you come to clinic, your blood is tested for a cyclosporine level. On those mornings, DO NOT take your morning dose of cyclosporine until after your blood has been drawn.**
- If your dose of cyclosporine needs to be changed, you will be notified by the Transplant Clinic staff.
- If your cyclosporine changes in appearance when you get it from the pharmacy, call the Transplant Clinic. You may require blood testing to make sure your blood levels are staying in the correct range.

Medications

CLASS: Anti-Rejection or Immunosuppressive Drugs

NAME: Rapamune® (Sirolimus)

Dosage Form:



1 mg/1mL solution



1 mg tablet
White

When to Take

Usually taken once a day in the morning.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking Rapamune® on your own:**

- Mouth ulcers
- High cholesterol or triglycerides
- Delayed wound healing
- Unusual bruising
- Feeling tired or weak
- Signs and symptoms of infection
- Kidney damage

Special Instructions

- Take with or without food. **DO NOT drink or eat any form of grapefruit (juice, Fresca®, fruit, pills)** Grapefruit can increase your drug blood level and high levels can damage your kidneys.
- **Always rinse your mouth with water after taking this medication.**
- Avoid eating high fat foods. Rapamune® can cause high cholesterol and triglyceride levels.
- If you miss a dose, **DO NOT** try to catch up on your own. Call the Transplant Clinic with any questions.
- Never let the medicine run out between refills. Be sure to take enough medication with you whenever you are going to be away from home.
- **On days when you come to clinic, your blood is tested for a Rapamune® level. On those mornings, do not take your morning dose of Rapamune® until after your blood has been drawn.**
- If your dose of Rapamune® needs to be changed, you will be notified by the Transplant Clinic staff.

Directions for Solution (liquid)

Store solution in the refrigerator. Once the bottle is opened, the contents should be used within one month or thrown away appropriately.

1. Put the adapter in the bottle and do not remove it.
2. Attach one of the syringes that is provided.
3. Pull up your dose into the syringe.
4. Push this dose into a glass or plastic container.
5. Add two ounces of water or orange juice to the container and mix well, then drink.
6. Add four more ounces of water or orange juice to the container and mix well, then drink.
7. Rinse your mouth well with water and then spit. Repeat this rinse at least one more time.

Medications

CLASS: Anti-Rejection or Immunosuppressive Drugs

NAME: Cellcept® (Mycophenolate Mofetil)

Dosage Form:



Suspension



250 mg
capsules
Blue/Peach



500 mg
Lavender

Special Instructions

- Try to take your doses at the same time every day, evenly spaced with the directed number of hours between each dose.
- Take with or without food. **We recommend taking with food to prevent nausea.**
- **DO NOT take antacids** (Maalox®, Mylanta®, Amphogel®) unless approved by the Transplant Team.
- If you miss a dose, **DO NOT** try to catch up on your own. Call the Transplant Clinic with any questions.
- Never let your medicine run out between refills. Be sure to take enough medication with you whenever you are going to be away from home.
- If your dose of Cellcept® needs to be changed, you will be notified by the Transplant Clinic staff.

When to Take

Usually taken twice a day, 12 hours apart.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking Cellcept® on your own:**

- Unusual weakness, tiredness
 - Unusual bruising or bleeding
 - Signs and symptoms of infection
 - Abdominal cramping
 - Nausea
 - Vomiting
 - Diarrhea
- } **Call if you have these side effects for 2-3 days in a row.**

Medications

CLASS: **Anti-Rejection or Immunosuppressive Drugs**

NAME: Imuran® (Azathioprine)

Dosage Form:



*50 mg tablets
Yellow to off-white*

When to Take

Usually once a day.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking Imuran® on your own:**

- Nausea
- Vomiting
- Hair loss
- Liver damage (liver tests will be monitored)
- Unusual weakness, tiredness
- Unusual bruising or bleeding
- Signs and symptoms of infection

Special Instructions

- May take with food to avoid nausea or vomiting.
- **There is a drug-drug interaction between Imuran® and allopurinol (Zyloprim®). If your doctor prescribes allopurinol for gout, then ask for clarification of your Imuran® dose.**

Medications

CLASS: **Anti-Rejection or Immunosuppressive Drugs**

NAME: Deltasone® (Prednisone)

Dosage Form:

1 mg, 2.5 mg, 5 mg, 10 mg and 20 mg tablets

When to Take

Once or twice a day.

Possible Common Side Effects

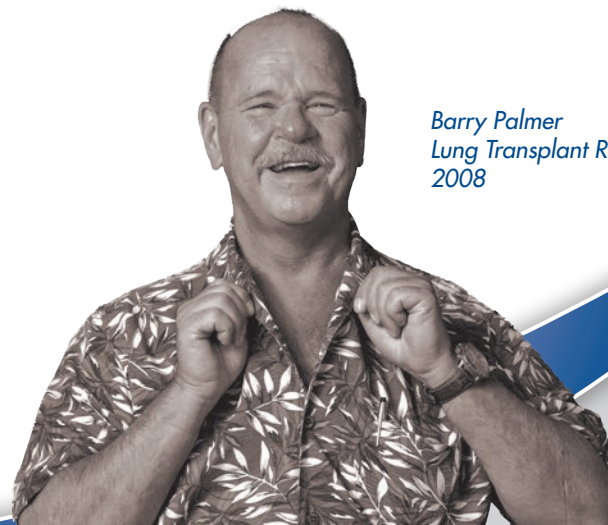
Let the Transplant Clinic know if you notice or are told you have any of the following, but

DO NOT stop taking prednisone on your own:

- Muscle weakness
- Joint pain
- Thinning bones/skin
- “Moon” or puffy face
- High blood pressure
- Diabetes (high blood sugar)
- Salt and water retention (swelling of hands and feet)
- Increased appetite
- Cataracts
- Glaucoma
- Delayed wound healing
- Bleeding from gastrointestinal tract
- Poor concentration
- Forgetfulness
- Hallucinations
- Emotional mood swings
- Talkativeness
- Insomnia (unable to sleep)

Special Instructions

- Should be taken with food.
- Dosages will be reduced or tapered as quickly and as safely as possible to avoid side effects.
- **REMEMBER** to record your tapering dosage on your Medication Sheet when there is a dose change. Also, carefully add to or take away from your pill box every time a dose change is made.
- If you have more than one dose strength of prednisone tablets, make sure you take your dose from the correct bottle.



Barry Palmer
Lung Transplant Recipient
2008

Medications

CLASS:

Anti-Rejection or Immunosuppressive Drugs

NAME:

Muromonab-CD3

(Orthoclone OKT3®)

Methylprednisolone

(Solu Medrol®)

Anti-Thymocyte Globulin, Rabbit

(Thymoglobulin®)

These drugs are strong immunosuppressive medications. Some are used immediately after surgery to prevent rejection; others are used to treat acute rejection episodes.

Dosage Form:

- All of these medications are given intravenously (in your vein) and the dose is different for each drug.
- Depending on the medication, the length of treatment can be two to three days or as long as 14 days.
- These medications are given to you in the hospital or in the Outpatient Transplant Clinic.
- Insertion of a special intravenous line may be necessary in some cases for longer therapy.

Possible Common Side Effects

You will be given medication, acetaminophen (Tylenol®) and diphenhydramine (Benadryl®), prior to each dose of OKT3 and Thymoglobulin® to counteract some of the possible side effects. SoluMedrol®, Simulect® and Zenapax® do not require pre-medication.

Not every patient experiences side effects. The most uncomfortable side effects usually last only during the first few doses or the first one to four days. Side effects may include:

- Wheezing, difficulty breathing
- Chest pain
- Fever
- Chills
- Nausea
- Vomiting
- Diarrhea
- Tremor
- Headache
- Rapid heart rate
- Muscle stiffness
- High or low blood pressure
- High blood sugar
- Hallucinations
- Sensitivity to light
- Stiff neck

NOTIFY the Transplant Team IMMEDIATELY if you notice any of these side effects:

- **Wheezing, difficulty breathing, rapid heart beat, difficulty swallowing, rash, itching or severe headache.**

Medications

CLASS:

Anti-Rejection or Immunosuppressive Drugs

NAME:

Muromonab-CD3

(Orthoclone OKT3®)

Methylprednisolone

(Solu-Medrol®)

Basiliximab

(Simulect®)

Daclizumab

(Zenapax®)

Anti-Thymocyte Globulin, Rabbit

(Thymoglobulin®)

Special Instructions

For a month or two after treatment with any of these drugs your body is very immunosuppressed. This means that your immune system is affected and you are at high risk for infections. To prevent some infections, medications like antiviral or antifungal drugs may be given to you. To protect yourself against infections, please comply with the following guidelines:

- Wash your hands thoroughly before eating, before taking your medications and after using the bathroom.
- Practice good dental and personal hygiene daily.
- For one to two months after therapy you should avoid crowds, people who are sick or who have contagious diseases.
- Wear a face mask for one to two months after therapy when you are in public or coming to the hospital.
- Avoid construction areas and/or dusty environments.

Recognize early signs and symptoms of infection, which may include:

- Sore throat
- Fever
- Chills
- Tired or sluggish feeling
- Sores, ulcerations, cuts, lesions or rashes (Inspect your mouth and skin daily)
- Unusual swelling or lumps on your neck or underarm area (Inspect these areas daily)
- Difficulty swallowing liquids or food
- Severe indigestion or heart burn

If you experience any of these problems or have questions, call the Transplant Clinic.

Medications

CLASS: **Anti-Infective Drugs**

Patients who have had organ transplants are at higher risk for developing uncommon infections like *Pneumocystis carinii* pneumonia (PCP) and urinary tract infections. The most common antibiotic given to prevent these illnesses is Septra®. Septra® is a sulfa-based medication. If you are allergic to sulfa medications or have intolerable side effects, you may be given Nebupent®, Mepron® or Dapsone® to prevent PCP. Tequin® or Levaquin® may be prescribed to prevent urinary tract infections.

NAME:

Septra®, Bactrim®, SMZ/TMP®
(Sulfamethoxazole/Trimethoprim)

Dosage Form:

Suspension (liquid)
Single strength (SS) 400 mg/80 mg tablet
Double strength (DS) 800 mg/160 mg tablet

When To Take

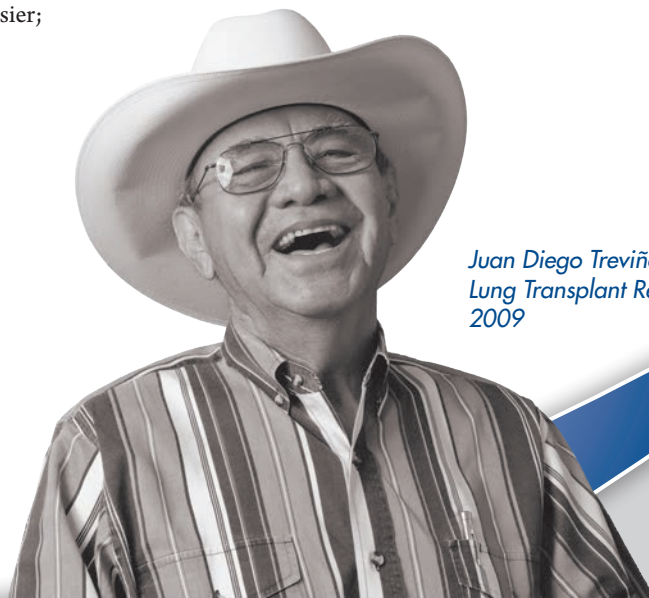
Usually once a day.

Possible Common Side Effects

- Can cause sun sensitivity making you sunburn easier; protect your skin when outdoors.
- Use SPF-30 or higher sun screen on all exposed surfaces including ears, nose and lips.

Special Instructions

- Must be taken with a full glass of water to prevent the formation of crystals in the urine.
- May be taken with or without food.



Juan Diego Treviño
Lung Transplant Recipient
2009

Medications

CLASS: Anti-Infective Drugs

NAME: **Nebupent**[®] (*Pentamidine*)

Dosage Form:
300 mg inhalation

When to Take

Once every month by inhalation in the Transplant Clinic.

Possible Common Side Effects

- Coughing, wheezing, difficulty breathing
- Chest pain
- Dizziness
- Fatigue
- Low blood sugar

Special Instructions

- Requires pre-treatment with an Albuterol inhalation. It is given by a respiratory therapist.
- Record the date of your last inhalation on your Medication Sheet to help remember when your next dose is due.
- Clinic staff will monitor your blood sugar and blood pressure before and after your treatment.

NAME: **Mepron**[®] (*Atovaquone*)

DOSAGE FORM:
750 mg/5 mL suspension (liquid)

When to Take

Usually taken once or twice a day.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following, but **DO NOT stop taking Mepron[®] on your own:**

- Anxiety
- Insomnia (unable to sleep)
- Nausea
- Vomiting
- Diarrhea

Special Instructions

- Shake well before using.
- Take with food to avoid nausea.

Medications

CLASS: **Anti-Viral Drugs**

Antiviral drugs help prevent viral infections such as Herpes simplex (cold sores), Herpes zoster (shingles), Varicella-zoster (chicken pox), Epstein-Barr virus EBV (Mononucleosis) and CMV (cytomegalovirus). These medications cannot give total protection against these viruses but they do provide some protection for those at risk. Depending on your particular risk, you will be placed on one of these medications.

NAME: Zovirax® (Acyclovir)

DOSAGE FORM:

200 mg/5 ml suspension, 200 mg capsule, 400 mg and 800 mg tablets.

When to Take

One to three times a day. The dose may change based upon how well your kidneys are working: the better they work, the more your dosage requirement will be.

Possible Common Side Effects

Let the Transplant Clinic know if you notice or are told you have any of the following:

- Confusion
- Dizziness
- Unusual weakness, tiredness
- Unusual bruising or bleeding
- Kidney damage
- Signs and symptoms of infection

Special Instructions

- May take with or without food. We recommend taking with food to avoid nausea.
- Drink a full glass of water with each dose to prevent the formation of crystals in the urine.



Monica Avila
Kidney Transplant Recipient
2008

Medications

CLASS: Anti-Viral Drugs

NAME: **Cytovene®** (Ganciclovir)

Dosage Form:

250 mg and 500mg capsules

When to Take

One to three times a day. The dose may change on how well your kidneys are working.

Possible Common Side Effects

- Confusion
- Dizziness
- Unusual weakness, tiredness
- Unusual bruising or bleeding
- Kidney damage
- Signs and symptoms of infection

Special Instructions

- **MUST** be taken with food to increase absorption.
- **DO NOT** break, cut, crush or chew capsules.

NAME: **Valcyte®** (Valganciclovir)

Dosage Form:

450 mg tablets

When to Take

Usually taken once a day. The dose may change based upon how well your kidneys are working: the better they work, the more your dosage requirement will be.

Possible Common Side Effects

- Unusual weakness or tiredness
- Unusual bruising or bleeding
- Signs and symptoms of infection

Special Instructions

- **MUST** be taken with food to increase absorption.
- **DO NOT** break, cut, crush or chew tablets.

Medications

CLASS:

Anti-Fungal Drugs

Your antifungal drug, dose and length of therapy will depend on the type of transplant you had and your risk for fungal infection. Some commonly prescribed antifungal drugs include: Mycostatin®, Sporanox® and Nizoral®.

Sporanox® and Nizoral® seriously affect blood levels of Rapamune®, Prograf® and cyclosporine. Notify the Transplant Team if you are prescribed any of these drugs by your primary care physician. This will ensure that you are monitored carefully while on this medication.

NAME: Mycostatin® (Nystatin)

Dosage Form:

Suspensions

When to Take

Usually taken three times a day.

Special Instructions

- Shake well before using.
- Swish in mouth for 20-30 seconds and then swallow.
- **DO NOT** eat or drink for 20-30 minutes after using. This may be easier to take after meals.

NAME: Diflucan® (Fluconazole)

Dosage Form:

100 mg and 200 mg tablets

When to Take

Usually once a day. The dose may be changed based on how well your kidneys function.

Possible Common Side Effects

- Headache
- Nausea
- Vomiting
- Diarrhea
- Elevated Prograf®, Cyclosporine, Rapamune® levels
- Liver damage

Special Instructions

- May require liver function test monitoring if you take long-term.
- Seriously increases Rapamune®, Prograf® or Cyclosporine levels. Health problems can occur if strict blood level monitoring of anti-rejection medications is not followed.

Medications

CLASS: Anti-Fungal Drugs

NAME: Sporanox® (*Itraconazole*)

Dosage Form:

100 mg capsules and 10 mg/1 mL solution (liquids)

When to Take

Usually once or twice a day. The dose may be changed based on how well your kidneys work.

Possible Common Side Effects

- Nausea
- Vomiting
- Liver damage (liver test will be monitored)
- Elevated Prograf®, Cyclosporine and Rapamune® levels
- Bad “after taste” in mouth (solution or liquid only)

Special Instructions

- Take the **solution** on an empty stomach, which means one hour before or two hours after a meal.
- Take the **capsules** with food.
- To prevent the “after taste”, drink sips of diet carbonated beverage.
- Do NOT take antacids or anti-ulcer medications within two hours before or after taking this medicine.
- May require liver function test monitoring if you take long-term.
- Seriously increases Rapamune®, Prograf® or cyclosporine levels. Health problems can occur if strict blood level monitoring of anti-rejection medications is not followed.

NAME: Nizoral® (*Ketoconazole*)

Dosage Form:

200 mg tablet

When to Take

Usually taken once a day. The dose may be changed based on how well your kidneys function.

Possible Common Side Effects

- Nausea
- Vomiting
- Dizziness
- Elevated Prograf®, cyclosporine and Rapamune® levels

Special Instructions

- May take with food.
- Do NOT take antacids or anti-ulcer medications within two hours before or after taking this medicine.
- Seriously increases Rapamune®, Prograf® or cyclosporine levels. Health problems can occur if strict blood level monitoring of anti-rejection medications is not followed.

Medications

CLASS: Protective Medications

Type: ANTI-ULCER
MEDICATIONS

NAME AND
DOSAGE FORM:

Famotidine
(*Pepcid*®) 20 mg tablet,
Ranitidine
(*Zantac*®) 150 mg tablet

These medications decrease the acid in your stomach to help protect you from getting an ulcer. Drugs like prednisone can increase your risk for developing ulcers. This medication helps protect you from this side effect.

WHEN TO TAKE

Usually once a day at bedtime.
May be taken twice a day.

Type: ANTI-ULCER
MEDICATIONS

NAME AND
DOSAGE FORM:

Omeprazole
(*Prilosec*®)
20 mg capsule
Lansoprazole
(*Prevacid*®)
15 mg or 30 mg capsule
Esomeprazole
(*Nexium*®)
20 mg, 30 mg or
40 mg capsule
Pantoprazole
(*Protonix*®)
40 mg tablet
Rabeprazole
(*Aciphex*®)
20 mg tablet

These medications prevent or treat ulcers and gastric esophageal reflux (GERD) which causes what is commonly known as “heartburn.” These medications are prescribed only after the less potent anti-ulcer medications fail to correct your symptoms.

WHEN TO TAKE

Usually taken once a day. May be taken twice a day as needed for symptoms.

SPECIAL INSTRUCTIONS

- **DO NOT cut, crush or chew.**
- Usually taken in the morning 30 minutes before eating.

Type: ANTACIDS

NAME:

Maalox®
Mylanta®
Amphogel®

These medications are used to control the acid in your stomach. You should not need to take antacids if you are taking any of the anti-ulcer medications.

Antacids can interfere with the absorption of some of the medicines you take. **DO NOT** take antacids unless directed to do so by the Transplant Team or pharmacist.

Medications

CLASS: **Protective Medications**

Type: ANTI-HYPERTENSION MEDICATIONS

These medications are used to lower your blood pressure and are frequently used in combination with other medications to reach this goal. Anti-hypertensive medications are monitored closely and adjusted to maintain optimum blood pressure control. This is not a complete listing of all anti-hypertensive medications.

NAME:

Nifedipine Extended Release

(Adalat CC[®], Procardia XL[®])

Norvasc *(Amlodipine[®])*

Atenolol *(Tenormin[®])*

Metoprolol *(Lopressor[®])*

Hydrochlorothiazide *(Hydrodiuril[®])*

HCTZ Clonidine *(Catapres[®])*

When to Take

Usually taken once a day, but some may be prescribed twice a day.

Special Instructions

- If you are taking any medication to control your blood pressure, you will be taught how to measure your blood pressure at home.
- Symptoms of blood pressure being too low can include dizziness or blackout, as well as nausea, vomiting, mental confusion, coldness or clamminess.
- Usually when the systolic blood pressure (top number) is less than 110 mm/Hg it is necessary for you to hold a dose.
- Notify the Transplant Clinic if you have to hold this medicine for two days in a row.
- **Always call the Transplant Clinic if you have questions.**



*Gilberto Briones
Liver Transplant Recipient
1999*

Medications

CLASS: **Protective Medications**

Type: DIURETICS

The list of diuretics is very long so only the one that is commonly used is mentioned. Diuretics are used to decrease fluid retention which may be caused by steroids or other medications. Diuretics act by getting rid of fluid from the body. This causes an increase in urine flow.

NAME: Furosemide (*Lasix*[®])

Dosage form:

20 mg, 40 mg and 80 mg tablets

When to Take

Usually one or two times a day.

Special Instructions

- The action of the drug may last two to 12 hours. Plan your activities so that a bathroom is available. Take your evening dose of diuretic early in the evening, before 6 p.m. This will help prevent waking in the middle of the night to use the bathroom.
- Home monitoring of blood pressure and weight is useful to help track how effective the drug is working.
- Diuretics can cause loss of a mineral in your body called potassium. If you take *Lasix*[®] (furosemide), you may be asked to take a potassium supplement.
- The dietitian will counsel you regarding any dietary recommendations or restrictions while on a diuretic.

Type: CHOLESTEROL/ LIPID LOWERING MEDICATIONS

These medications help decrease cholesterol and fats in the blood. High cholesterol can cause heart disease with the risk of heart attack and death. Some of the anti-rejection medications can cause an increase in blood cholesterol and triglycerides. One of the medications below may be given to you to control this side effect.

NAME AND DOSAGE FORM:

Pravastatin

(Pravachol[®])

10 mg, 20 mg, 40 mg and 80 mg tablets

Atorvastatin

(Lipitor[®])

10 mg, 20 mg and 40 mg tablets

Gemfibrozil

(Lopid[®])

600 mg tablets

When to Take

Usually once a day in the evening.

Possible Common Side Effects

- Muscle pain, muscle cramps, muscle weakness, gastrointestinal upset

Special Instructions

- Call the Transplant Team immediately if you begin to have muscle pain, muscle cramps or weakness.

Medications

CLASS: **Protective Medications**

Type: VITAMIN AND MINERAL SUPPLEMENTS

These medications help ensure adequate vitamin and mineral intake on a daily basis.

NAME AND DOSAGE FORM:

Multivitamin
(Centrum®) Tablet

When to Take

Usually taken once a day.

Type: VITAMIN AND MINERAL SUPPLEMENTS

NAME AND DOSAGE FORM:

Magnesium oxide,
400 mg tablets

This medication helps to replace the mineral, magnesium.

When to Take

Usually taken once or twice a day.

Possible Common Side Effects

- May cause diarrhea. Call the transport clinic if you experience this two to three days in a row.

Type: LAXATIVES/ STOOL SOFTENERS

These medications are stool softeners. They help prevent straining and pushing when having a bowel movement, otherwise known as constipation. Some of the causes of constipation can be pain medications, a diet low in roughage and diabetes.

NAME:

Docosate Calcium
(Surfak®) (Colace®)
Docosate/Casanthranol
(PeriColace®)

When to Take

Usually taken once or twice a day.

Special Instructions

- Never go longer than two days without having a bowel movement.
- Call the Transplant Clinic if your abdomen is tender, enlarged or you are nauseated or vomiting.
- Stop taking the stool softener if diarrhea develops. Call the transport clinic if you experience this two to three days in a row.

Medications

CLASS: **Pain Medications**

These medications help control pain. Usually only one of these drugs is given to you. **DO NOT** take larger doses or more often than the recommended dose given to you by the doctor. Taking too much pain medication can be dangerous. Misuse of these drugs can cause liver damage.

NAME AND DOSAGE:

Hydrocodone and Acetaminophen (Vicodin®, Lortab®), *one to two tablets every six hours; do not take more than eight tablets in 24 hours.*

Acetaminophen with Codeine (Tylenol® with Codeine®), *one to two tablets every four to six hours; do not take more than 12 tablets in 24 hours.*

Ultram (Tramadol®), *50 to 100 mg (one to two tablets) every six hours; do not exceed 400 mg in 24 hours.*

When to Take

As needed for pain and only as often as directed.

Possible Common Side Effects

- Drowsiness, sleepiness
- Constipation
- Nausea
- Strange dreams

Special Instructions

- **You should not drive or operate machinery while taking pain medication containing narcotics.**
- **DO NOT** take more than the recommended dose. When taking acetaminophen (Tylenol®), check the strength of the tablet or capsule (325 mg or 500 mg) and do not take more than four grams or 4,000 mg in 24 hours.
- If your pain becomes severe or is not controlled by the recommended dose, do not increase the pain medication. Call the Transplant Clinic to get the best advice. Pain may be a symptom or sign of a problem and should be evaluated by the physician.

NAME AND DOSAGE:

Acetaminophen (Tylenol®),

325-650 mg (one or two regular strength tablets) every four to six hours, 1,000 mg (two extra-strength tablets) every six hours.

DO NOT take more than four grams (4,000 mg) or eight tablets in 24 hours.

When to Take

As needed for pain and only as often as directed.

Special Instructions

- **DO NOT** take more than the recommended dose. When taking acetaminophen (Tylenol®), check the strength of the tablet or capsule (325 mg or 500 mg) and do not take more than four grams or 4,000 mg in 24 hours.
- Read the labels of all over-the-counter medications since many contain acetaminophen, and toxicity (damage to the liver) can occur if too much is taken.

Medications

Pain Medication You Should Not Take:

DO NOT take ibuprofen (Motrin IB[®], Nuprin[®]) or any other over-the-counter non-steroidal anti-inflammatory (NSAID) medication to control pain. Use of these drugs in combination with many of the other medications you take can cause kidney damage.

Once you return to your PCP (primary care physician) for regular medical care, he/she may prescribe medicine for your aches or pains.

The Transplant Team DOES NOT recommend NSAIDs (non-steroidal anti-inflammatory drugs) for pain.

DO NOT take any of these drugs without checking with the Transplant Team or pharmacist first.

Over-the-Counter

Naproxen
(Aleve[®])

Aspirin
(Bufferin[®], Bayer[®], Excedrin[®])

You may take a baby aspirin once a day for blood thinning purposes if ordered by a physician

Ibuprofen
(Advil[®], Motrin IB[®], Midol[®], Nuprin[®])

Ketoprofen[®]
(Orudis, Oruvail)

By Prescription

Ansaid[®]
(Flurbiprofen)

Motrin[®]
(Ibuprofen)

Cataflam[®]
(Diclofenac)

Nalfon[®]
(Fenoprofen)

Celebrex[®]
(Celecoxib)

**Naprelanv,
Naprosyn[®]**
(Naproxen)

Clinoril[®]
(Sulindac)

Ponstel[®]
(Mefenamic acid)

Daypro[®]
(Oxaprozin)

Relafen[®]
(Nabumetone)

Feldene[®]
(Piroxicam)

Tolectin[®]
(Tolmetin)

Indocin[®]
(Indomethacin)

Toradol[®]
(Ketoralac)

Lodine[®]
(Etodolac)

Vioxx[®]
(Rofecoxib)

Meclomen[®]
(meclofenamate)

Voltaren[®]
(Diclofenac)

This list does NOT mention every NSAID.

Many over-the-counter products in the cough and cold section of pharmacies contain NSAIDs. If you are not sure whether your doctor has prescribed an NSAID or if an over-the-counter product contains an NSAID, then contact the Transplant Clinic for more information.

In some circumstances, your doctor might allow the use of an NSAID for a short period of time but only under close supervision by your physician and only with required lab work.

Medications

CLASS: Pain Medications

MEDICATION INTERACTIONS

Drug Interactions

Transplant medicines can interact with other medication. **It is very important that you DO NOT take any new medicine without checking with the Transplant Team first.** This includes:

- Prescription drugs
- Over-the-counter medicine
- Herbal supplements
- Natural products
- Vitamin combinations

The Transplant Team will tell you whether it is safe to take a new medicine with your transplant medications.

Food Interactions

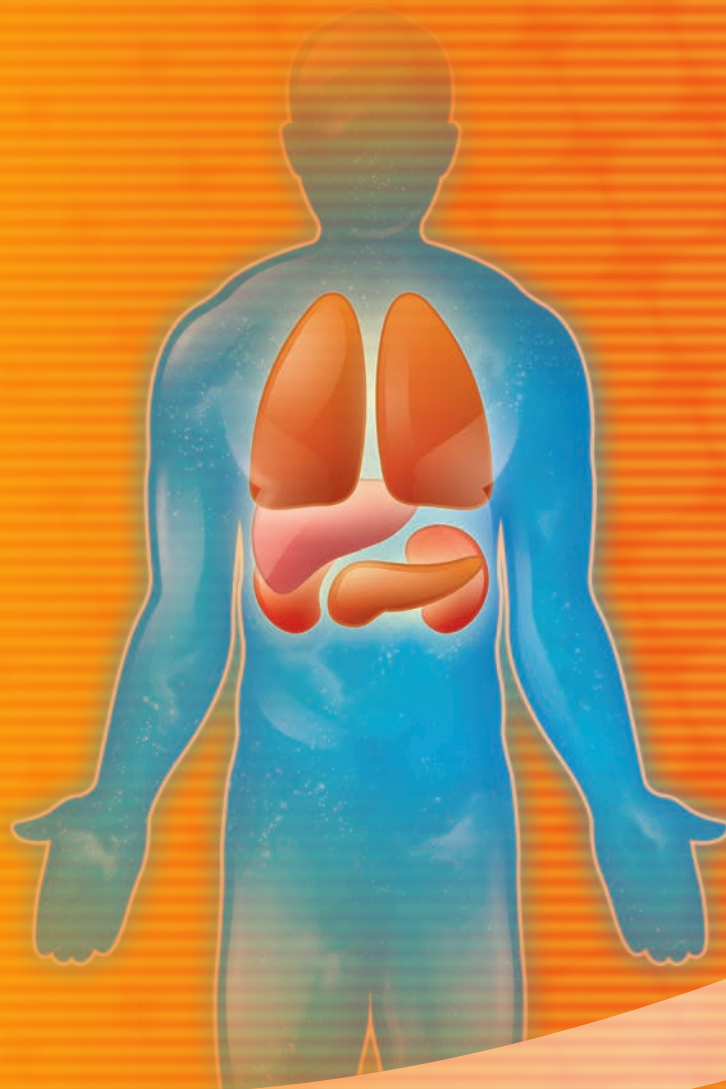
Some foods interact with transplant drugs. The Transplant Team highly recommends that you Take with or without food. **DO NOT drink or eat any form of grapefruit (juice, Fresca®, fruit, pills)** as it may change the blood levels of your transplant medications. If you have questions about other drug-food interactions, ask your Transplant Team.



Lesa Goldberg
Lung Transplant Recipient
2007

General Health Guidelines

Health Guidelines



General Health Guidelines

Skin Care

General Care

- You should take a shower daily to keep your skin clean.
- You may use any soap or lotion.
- **Notify the Transplant Team or your physician if you discover any unusual growth, rash or discoloration.**

Cuts and Scratches

Prednisone can cause your skin to become thin, so it breaks, tears, scratches and bruises easily.

- Keep your skin clean to avoid infections.
- Keep minor cuts and scratches clean and dry by washing with soap and water.
- **Notify the Transplant Clinic or your primary care doctor if a cut or wound is not healing, red, swollen or has drainage.**

Hair and Nail Care

Several medications and the stress from surgery will affect the condition and thickness of your hair and nails.

- **Avoid tints, dyes, bleaches and permanent wave lotions for the first six months after surgery.**
- You may begin using them after your dose of Prednisone is tapered to less than 10 mg/day.
- Using harsh chemicals and products on your hair after major surgery and in combination with these medications may cause your hair to break or fall out.
- Inform your hair stylist that you are on prednisone and to use a good conditioner on your hair.
- False or artificial nails are discouraged due to possible fungal infections.

Increased Hair Growth

This problem is especially annoying to women, particularly if facial hair increases.

- Use over-the-counter bleaching creams if necessary to fade the color of the hair.
- After the first three months, you may remove hair with a hair removal cream.
 - > Anytime you use bleaching creams or hair removal products always test a small area of your skin according to the directions on the bottle.
 - > These products cause severe irritation to the eyes and mucous membranes (even to your lips), so apply it carefully and avoid these fragile areas.

General Health Guidelines

Sun Exposure

The ultraviolet rays from the sun induce skin cancers, and these ultraviolet rays are present even on cloudy days and in shady areas. Transplant patients have an increased chance of developing skin and lip cancers.

Skin and lip cancers occur more frequently in people who have had prolonged exposure to the sun, have light skin pigment or fair complexions. These cancers occur more often when you live in an area that has numerous sunny days or in an area of high elevation. They are also more common in people whose jobs require them to work in the sun.

Some transplant medications (steroids and sulfa drugs) will make you sensitive to the sun. You will probably burn and tan easier, faster and to a greater degree than you did before your transplant. If you have blond hair, red hair or a fair complexion, you have an even greater chance of getting severe sunburn.

Always

- Protect your skin from ultraviolet exposure.
- Wear broad-brimmed hats, long sleeves, gloves and slacks.
- Use sunscreen lotion (SPF-30 or more) on any exposed skin.
- If you must be outside, plan to be outside in the early morning or late afternoon when there are fewer ultraviolet rays.
- Use lip balm with sunscreen protection.

Avoid

Midday sun, since ultraviolet rays are strongest between 10 a.m. and 4 p.m.



Roberta Barnett
Lung Transplant Recipient
2007

General Health Guidelines

Smoking

DO NOT smoke. The Surgeon General of the United States has determined that smoking, including passive smoke, is harmful to your health. Smoking causes damage to the lungs, making it easier for you to develop a lung infection or cancer. You should stay away from smoke-filled areas as much as possible.

If family members smoke, they should smoke outside of your home. Lung infections can become serious or life-threatening.

Consult the Yellow Pages of the telephone book or the American Heart Association, American Lung Association or American Cancer Society to join a stop-smoking group in your area.

Alcoholic Beverages and Drugs

You should NOT drink any alcohol. Alcohol includes beer, wine and hard liquor. Alcohol is broken down by the liver. Some of the immunosuppressive drugs you take are also broken down by the liver. The combination of the two can cause liver damage, as well as liver failure. Taking alcohol with medications may increase problems with medication blood levels.

If your pre-transplant diagnosis was alcoholic liver disease, and you start drinking alcohol again, you will not be reconsidered for a transplant if your liver fails. You should participate in Alcoholics Anonymous (AA) meetings, professional counseling or mentor groups in order to maintain abstinence from alcohol.

If you have Hepatitis C, you should avoid drinking alcoholic beverages. Alcohol will increase the liver damage caused by Hepatitis C and can cause liver failure.

The illegal use or unauthorized (un-prescribed) use of legal or illegal drugs, including marijuana is forbidden. Participate in Narcotics Anonymous (NA) meetings, professional counseling or mentor groups to maintain abstinence from these substances.



Alberto Esparza
Liver Transplant Recipient
2007

General Health Guidelines

Pet Guidelines

Since you have an immunosuppressed immune system, you need to know about the risks of catching diseases from pets. The risks are minimal when proper precautions are taken. We do recommend that you keep all animals (especially birds) outside instead of in your home.

- Wash your hands often.
- Keep your pet clean and well groomed.
- Keep your pets living area and feeding area clean.
- If your pet has fleas, contact your veterinarian for advice.
- Avoid any contact with animal waste (including cat litter, aquariums, bird cages).
- Don't let your pet lick your wound or face.
- Don't let your pet sleep in your bed or on your linens.
- Keep annual veterinarian check-ups and vaccinations current.
- If your pet shows signs of possible illness, contact your veterinarian right away.

Animal Bites

- Immediately tend to any animal bites to help prevent infection.
- Rinse the wound with cold, running water.
- After this first aid, always contact your physician.
- Seek further medical assistance as necessary.

Pets to Avoid

- Stray animals
- Sick animals
- Exotic animals (monkeys, reptiles, turtles, lizards, iguanas)
- Wild animals (raccoons, squirrel, rats)
- Cats, fish and birds
- Farm animals; Livestock (especially exposure to animal feed and animal waste)

General Health Guidelines

Sexuality and Pregnancy

- Avoid sexual intercourse or intimacy for the first six weeks after transplant.
- Resume sexual relations when you feel up to this activity.
- Practice “Safe sex” (including the use of condoms and one sexual partner).
- Good hygiene by you and your partner should be practiced before and after any sexual activity.
- If you notice a change in your sexual ability or desire, **DO NOT** hesitate to discuss it with us.

Pregnancy

- Whether you are male or female, you must talk with the Transplant Team first if you are considering pregnancy and are on transplant medications.
- The benefit of taking transplant medications must be weighed against the potential problems to you, your fetus or your infant.
- Consult an obstetrician and/or gynecologist for an acceptable birth control method.
- **You should not get pregnant immediately after transplant. Avoid pregnancy for one year after transplant. Pregnancy would have special risks for both the transplant recipient and the baby. To ensure that your organ is at its optimum condition, the decision to have children must be discussed with the Transplant Team.**
- **If you do get pregnant, you must be followed by a physician who is a specialist in high-risk obstetrics. Talk with the Transplant Team immediately if you think you are pregnant.**
- Consult the Transplant Team for any special needs or medications.
- Breastfeeding is highly discouraged in transplant patients.

General Health Guidelines

Female Transplant Patients

- Learn to perform self breast exams and do these exams every month. You must also have annual mammograms performed no matter what your age.
- Most patients with chronic illness or disease lose their period or monthly menses. After transplant your period or monthly menses will likely return unless you have already experienced menopause or have had your uterus removed.
- If you choose to use tampons, follow safety guidelines for their use which include:
 - > Use the lowest absorbency for your flow.
 - > Remove and change the tampon frequently, every four to six hours.
 - > **DO NOT** leave the tampon in any longer than six hours.
 - > **DO NOT** use tampons while you sleep overnight.
 - > Try to alternate pads with tampon use.
 - > **NEVER** forget to remove a tampon.
 - > **Ask your Gynecologist for the best advice regarding tampon use for your individual needs.**
- Use some form of reliable birth control because it is possible for you to get pregnant if you are sexually active and not post-menopausal.

Male Transplant Patients

- You are still fertile. To avoid putting a baby at risk, do not father a child for at least one year after transplant or until you are on lower doses of medications or off of some medications.
- Learn to perform self testicular exams and notify the Transplant Team if you feel any lump or mass in your testes.



Alejandra Leyva
Living Donor
Kidney Recipient
2008

Daniel Ruiz
Living Kidney Donor
2008

General Health Guidelines

Dental Care

- Brush your teeth and gums at least twice daily.
- Use only a soft bristle tooth brush.
- Floss your teeth daily.
- Tell the dentist you have been transplanted.
- Have a dental checkup at least once a year or as often as your dentist recommends.
- **Your dentist will follow the American Heart Association Guidelines for Bacterial Prophylaxis and prescribe an antibiotic for you to take before every dental appointment (including cleaning and polishing).**
- Please inform the Transplant Clinic if your dental work was NOT completed before transplant.
- You and your dentist are encouraged to consult the Transplant Clinic with any questions or concerns regarding any major dental work.
- If you do NOT have a dentist, please let the Transplant Clinic know.

Travel

You may resume travel three to six months after transplant.

- Notify the Transplant Team if you plan to travel out of the country. We may make recommendations or give specific instructions on how to protect yourself.
- Special vaccines and medications may be necessary depending on the destination.
- Clinic appointments can be scheduled around your travel plans.

Common Illnesses/Problems

Remember to stay away from friends or relatives who you know are ill. See your primary care doctor for any of the following:

- Colds and flu
- Sore throats
- Ear aches
- Chronic headaches
- Persistent headaches

Notify the Transplant Team for any of the following:

- New episodes of persistent headaches.
- Cold Sores – Herpes simplex virus causes cold sores. These sores look like tiny water blisters on the lip or face.
- Unusual or painful rashes or sores.
- Any scheduled surgery or procedures.
- Exposure to any communicable disease (chicken pox, measles, mumps, etc.).
- Herpes zoster (shingles) – Shingles appear as a rash or small water blisters, usually on the chest, back or hips, but may occur on other areas. The rash may or may not be painful. Your local doctor may treat your shingles; however, **be sure to notify the Transplant Clinic.**

General Health Guidelines

Immunizations and Vaccines

- Immunizations should be given prior to transplantation if possible.
- No immunizations should be given within the first six months after transplantation.
- Notify the Transplant office if you plan to travel to a foreign country, especially if various vaccines or immunizations are required.
- Immunizations and vaccines require a signed consent form
- Always keep a current copy of your immunization/ vaccine record.
- **DO NOT** change the diapers or help with toileting of young children that have been recently immunized.

Acceptable Immunizations or Vaccines After Transplant

- **Influenza or “Flu” Vaccine** – It is strongly recommended you receive a flu vaccine every year. It is preferable that you get it at the start of the flu season; however, you may receive the vaccine at any time during flu season. **You, and your immediate family members, should not receive the ‘mist’ form of the vaccine as it is a live virus.**
- **Tetanus-diphtheria (Td) Vaccine** – Should be given as a booster at least every 10 years. Call the Transplant Clinic for advice if you have received a deep puncture wound. It may be necessary to give the booster vaccine early.

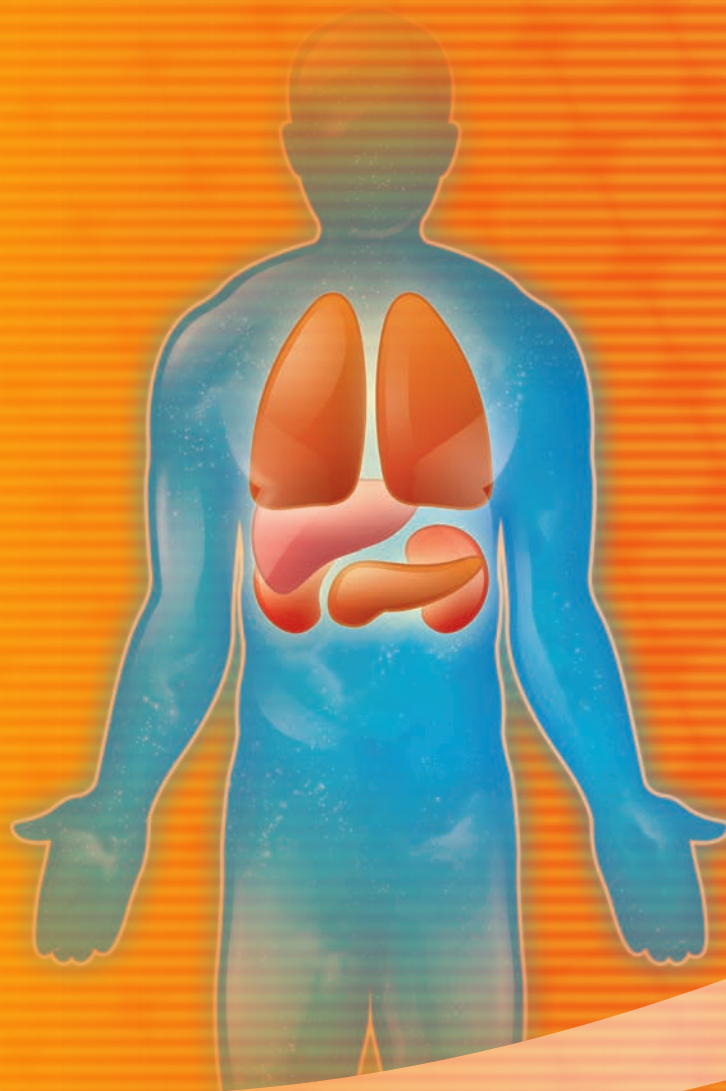
Unacceptable Immunizations or Vaccines After Transplant

- **Smallpox Vaccine**
- **Measles, Mumps, Rubella (MMR) Vaccine** – If you receive exposure to these diseases you may be given immune globulin for protection.
- **Varicella Vaccine** – It contains a live attenuated strain of the varicella virus. If you have been exposed to chicken pox or shingles you may receive the varicella zoster immunoglobulin for protection.
- **Oral live attenuated Polio Vaccine (OPV)** – You may receive the Inactivated Polio Vaccine (IPV).
- **The use of any vaccine containing a live virus is not generally recommended. The Transplant Team will determine the appropriate use of these vaccines in high-risk exposed patients.**

- **Mantoux (TB Test) Tuberculosis skin test**
- **Hepatitis B Virus Immune Globulin (HBIG)** – If you have Hepatitis B, it may be given monthly for a year.
- **Hepatitis A Vaccine**
- **Haemophilus Influenzae, Type B Vaccine (Hib)** – One dose is sufficient.
- **Pneumococcal Vaccine (Pneumovax®)** – Should be given every six years after your initial vaccination.
- **IPV** – Inactivated Polio Vaccine

Diabetes Care

DIABETES CARE



Diabetes Care

Prednisone causes your blood sugar or blood glucose to be higher.

If you already have diabetes you may experience less control of blood sugars and need more insulin. It is normal to have changing blood sugars in the first few months after your transplant. They should become more stable three to six months after your transplant, when your Prednisone dose is lower.

Symptoms of Low Blood Sugar (Hypoglycemia):

- Shaking
- Fast heartbeat
- Sweating
- Anxiety
- Dizziness
- Hunger
- Impaired vision
- Weakness/fatigue
- Headache
- Irritability

You do not need to have all of these symptoms to have low blood sugar. If you experience any of these symptoms, stop and check your sugar levels.

Symptoms can develop suddenly and can lead to shock. (See Insulin Reaction)

What Can You Do?

- Test your blood sugar or glucose.
- Drink a half (½) glass of orange juice or skim milk or eat several hard candies.
- Ten minutes later, test your blood sugar or glucose again. If symptoms don't stop, call your doctor.
- 30 minutes after symptoms go away, eat a light snack like half (½) a peanut butter or meat sandwich and a half (½) glass of milk.

Symptoms of High Blood Sugar (Hyperglycemia):

- Extreme thirst
- Frequent urination
- Dry skin
- Hunger
- Blurred vision
- Drowsiness
- Nausea

Causes

- Too much food
- Too little insulin
- Too little diabetes medicine
- Illness
- Stress
- Missed normal exercise routine

Untreated Hyperglycemia May Lead To

Diabetic coma (loss of consciousness)

What Can You Do?

- Test your blood sugar.
- If blood sugar is over 250 mg/dl for several tests, **CALL YOUR DOCTOR.**

Diabetes Care

Self Blood Glucose Monitoring (Blood Sugar Testing)

Your blood sugar needs close monitoring, just like your transplanted organ. You need to take care of yourself and check your blood sugars daily as instructed. This is usually four times a day before each meal and before your bedtime snack. Write down the date, time and result in your Transplant Manual or Diabetes Diary. Also write down the amount of insulin you take.

Procedure for blood sugar testing

1. Wash hands with warm water to clean the skin surface and increase blood flow.
2. Shake hands below your heart to increase the blood flow.
3. Prick the sides of the tips of the fingers. Avoid the fleshy center of the pads of the fingers. This area has more nerve endings so is more painful. Rotate test sites between all fingers.
4. Gently “milk” the finger from the base out to the tip. Hold the finger down so that blood will flow down to the tip of the finger.
5. Check expiration date of test strips before use.
6. Apply enough blood to test strip.
7. Follow specific instructions for the meter you are using.
8. Write down the date, time and result of the test in your Transplant Manual or Diabetes Diary.
9. Throw away the finger pricking device (lancet) and strips in a proper container.
10. Close test strip bottle completely
11. Keep equipment clean and check meter function according to the manufacturer's directions. Perform “control” tests as recommended by your meter company.
12. Replace batteries when needed.



Bart Graves
Kidney Transplant Recipient
2007

Diabetes Care

Insulin Pen Instructions

1. Gather all equipment (pen and needles)
2. Wash hands and area of skin for injection
3. Pull off pen cap and wipe the rubber stopper with alcohol swab
4. Remove the protective tab from the single-use needle and screw into the pen
5. Remove the protective cover from needle
6. Turn the dial to two units
7. Hold the pen with the needle pointing up and tap the pen gently to remove air
8. With the needle still pointing up, press the inject button and watch for a drop of insulin at the tip of the needle
9. Dial the number of units you need to inject
10. You will not be able to set a dose for more than the number of units remaining in the pen
11. Choose your injection site
12. Pinch up one to two inches of skin
13. Insert needle at 90 degree angle
14. Press the injection button all the way in

Drawing Insulin (vial and syringe)

1. Gather all your equipment (insulin bottles, syringes or insulin pen, alcohol swabs).
2. Wash hands and area of skin for injection.
3. Inspect insulin bottle for foreign particles. Then turn bottle upside down gently several times until insulin is well mixed. Do not shake or agitate. This is not necessary for Regular (R) or Humalog insulin.
4. Remove syringe needle cap, then pump or pull plunger in and out two to three times.

Single Dose

5. Draw air into syringe equal to insulin dose.
6. Inject air into insulin bottle.
7. Turn bottle upside down and draw back correct dose.
8. Check for air bubbles. To remove air bubbles, tap syringe to float bubbles to needle end, inject bubbles into bottle, then pull plunger back to correct dose. Repeat the process until bubbles are gone.
9. Set syringe aside to prepare injection site.

Mixed Dose

5. Draw air into syringe equal to amount of longer acting insulin (N and PH)
6. Inject air into longer acting insulin bottle.
7. Remove syringe from bottle.
8. Draw air into syringe equal to amount of shorter acting insulin (R, Humalog).
9. Inject air into shorter insulin bottle.
10. Turn bottle upside down. Draw back correct dose of shorter acting insulin.
11. Check air bubbles.
12. Remove syringe from bottle.
13. For longer acting insulin bottle, turn upside down gently several times until insulin is well mixed. **DO NOT** shake or agitate.
14. Insert needle into longer acting insulin bottle.
15. Turn bottle upside down. Draw back correct dose of longer acting insulin.
16. Lay down syringe to prepare injection site.
17. Do not let the needle touch anything.

TIP: Remember when mixing, CLEAR then CLOUDY.

Diabetes Care

Injecting Insulin

1. Clean site with soap and water or alcohol. Let alcohol dry.
2. Pinch up one-two inches of skin.
3. Insert needle at 90-degree angle.
4. Push plunger down and release skin.
5. Remove needle. Do not rub area.

Rotation of Insulin Injection Sites

- Insulin injections can be given in areas that have large fatty tissue and that are free from large blood vessels and nerves.
- The fatty tissue on the arms, abdomen, thighs, hips and buttocks can be used safely.
- Avoid areas where you have surgical scars.
- Rotating sites is helpful in preventing the development of tissue change and tissue hardening.
- If you give your morning insulin in your arm then always give your morning insulin in your arm. Remember to switch between arms. DO NOT give shots in the same spot. Move at least one inch away from where you gave your last injection.

Syringe and Needle Disposal

Drop the used syringe into an empty household container such as a bleach bottle, plastic soda bottle or laundry detergent bottle. When the container is full, seal the lid securely, write "USED SYRINGES" on the outside of the container in permanent marker, and deposit in the trash. Please follow local city trash disposal rules.

Insulin Reactions

An insulin reaction occurs when insulin causes your blood sugar level to fall below normal (less than 60 or 70 mg/dl).

The symptoms of an insulin reaction are:

- Shakiness
- Excessive sweating
- Headache
- Pounding of heart
- Impaired vision
- Hunger
- Irritability
- Tiredness

You may have an insulin reaction under any of the following circumstances:

- If you miss or delay meals and snacks.
- If you do NOT eat all the food allowed for each meal.
- If you engage in unplanned or excessive exercise.
- If you receive an overdose of insulin due to an error in judgment or measurement.

Diabetes Care

Treating Insulin Reactions

Treat all reactions immediately. Any delay can lead to serious consequences. Members of your family and your friends should be instructed on what to do when you cannot treat a reaction yourself.

- If you are alert and able to swallow, use one of these:
 - > An 8-ounce glass of skim milk (The treatment of choice if the reaction is just starting.)
 - > ½ cup of any fruit juice (Sugar does not need to be added to fruit juice.)
 - > ½ cup of a sweetened soda such as Coke® or Pepsi®
 - > ½ cup of any sweetened nectar
 - > ½ cup of Kool-Aid® or lemonade
 - > Two or three hard candies
 - > Five lifesavers
 - > One small box of raisins
 - > One tube of glucose gel
- **DO NOT** over-treat an insulin reaction. This could cause great swings in blood sugar levels. Treat all reactions with moderation.
- Check your blood sugar again in 15 minutes. If it is still less than 70 mg/dl, treat again.
- Continue to check your blood sugar every 15 minutes and treat until symptoms subside and blood sugar is 70 mg/dl or higher.

Instructions For Family Members

The following instructions apply to persons who treat an insulin reaction for you when you cannot treat it yourself. Ask your family members and friends to read these instructions:

- **If the diabetic is unable to swallow or is in danger of choking, do not force oral fluids.**
- **If the diabetic patient is not responsive, call 911.**



Homero Martinez
Kidney Transplant Recipient
2006

Diabetes Care

Foot Care

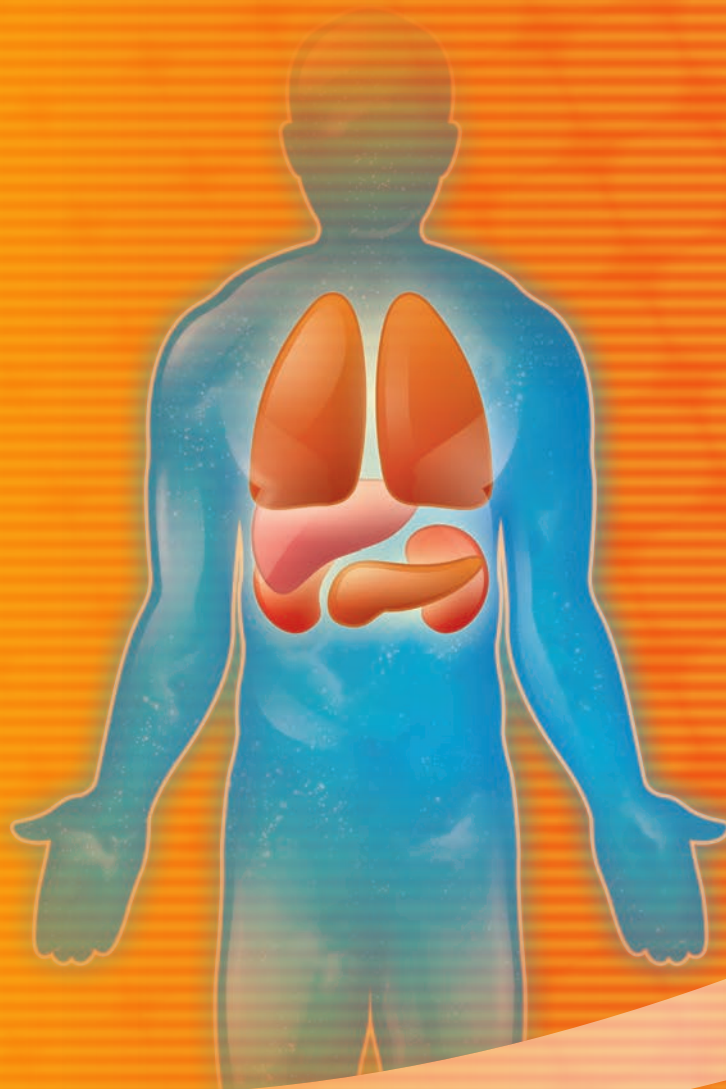
- Wash your feet daily with lukewarm water and soap.
- Gently dry your feet well, especially between the toes.
- Apply lotion to feet but **NOT** between toes.
- Check your feet daily for blisters, cuts, sores, redness or swelling. If this is hard to do, put a mirror on the floor and hold your foot above it to see the bottom of your foot.
- Keep your toenails trimmed and neat.
- Never walk barefoot, indoors or outdoors.
- Keep your feet warm and dry.
- Change daily into clean, soft socks or stockings.
- Wear padded socks and shoes that fit well.
- Examine your shoes every day for cracks, pebbles, nails or anything that could hurt your feet.
- Seek medical attention quickly if there are problems.
- **Obtain prompt medical attention at the first sign of a fungus infection, ingrown toenail, blisters or ulcer formation. Delay in seeking treatment can lead to the loss of a toe, foot or leg.**



Jayne Tumlinson
Liver Transplant Recipient
2006

Social Services

social services



Social Services

The Transplant Social Workers at University Hospital offer financial, emotional and social support before and after you receive a transplant.

The social workers identify the needs of the transplant patient and family members and seek community resources for assistance. Notify them of any insurance changes that can affect your follow-up visits or transplant medications. The social workers are here for you regardless of how long ago you were transplanted. They offer a variety of services such as:

- Assistance with funding and benefits information
- Medication assistance programs
- Counseling
- Assistance with transportation to medical appointments
- Lodging for out of town patients
- Referral to social service programs
- Assistance with forms and letters
- Referral to home health agencies
- Assistance with obtaining medical equipment and supplies

Medications and Health Care

If you ever have difficulty obtaining your medications or follow-up doctor's visits due to changes in insurance, benefits or finances, please contact the Transplant Social Workers immediately. Transplant patients should never go without their medications! The Social Workers can help you in obtaining assistance with the purchase of your medications as well as advise you on funding for health care coverage.

Social Services

Counseling Services

Now that you have recovered from your transplant, we would like to help you enjoy a satisfying life. Serious illness can create many family stresses and problems. To help you and your family make necessary adjustments, the Social Workers provide short term counseling services as well as references to outside counselors for long-term counseling. The Pastoral Care Services Department of University Hospital also offers spiritual and emotional support to you and family members. Psychiatric services are also available for you by physician referral. Joining support groups can provide needed emotional support, as well as information on pertinent topics. If you need to contact any of these people, please notify the Social Workers or the Transplant Clinic and we will be glad to help you.

Mentor Program 210-567-5777

A mentor is someone who has been through the transplant process and who is available to answer questions and offer guidance to those waiting for transplant. Contact the Transplant Patient Navigator if you are interested in becoming a mentor.

Sherrie Bell
Lung Transplant Recipient
2010



Social Services

Contacting the Donor Family

It is normal to feel emotional after your transplant surgery. At some point you may want to send a letter to the family of your donor. You may not know where to begin or how to express yourself. Take your time, even if all you say is "Thank you." Please keep in mind that the donor family may not respond.

Information that should be included:

- You may include your first name and the state you live in.
- You may include information about your job, hobbies and family.

Many donor families want to know:

- How long you waited for your transplant.
- How the wait affected you and your family.
- Milestones you are able to enjoy since your transplant (birthdays, anniversaries, births).
- How the transplant improved your health and changed your life.

Information that should NOT be included:

- Do not include your last name.
- Do not include your address, city or phone number
- Do not include the name of the hospital where you received your transplant.
- Do not include the names of your doctors, surgeons, or other healthcare providers.
- Do not include religious comments, since you do not know the religion of the donor family.



Rhonda Wye
Lung Transplant Recipient
2007

Social Services

Sending the letter or card:

- Place your card or letter in an unsealed envelope.
- On a separate piece of paper write your full name, transplant date and organ received.
- Place both of these items in another envelope and mail to:

**University Hospital
11th floor, RM 1105 A
4502 Medical Drive
San Antonio, Texas 78229
Attn: Organ Donor Family Coordinator**

- **You may also bring your letter to a clinic appointment and give it to a staff member who will forward it to the Organ Donor Family Coordinator.**

Will I hear from the Donor Family

You may or may not hear from your donor family. Every donor family is different. Some donor families feel that writing about their loved one helps in the grieving process. Other families find writing about their loved ones is to difficult.

Confidentiality

University Transplant Center strongly encourages written correspondence between organ donor families and transplant recipients. All correspondence is anonymous and identities are kept confidential.

Questions

Please Call **1-888-336-9633** to speak to your Organ Donor Family Coordinator.

Home Monitoring Diaries

