

LIVER TRANSPLANT PROGRAM

Before your transplant





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THE DUKE LIVER TRANSPLANT PROGRAM

The Duke Liver Transplant Program uses a team approach to care for you throughout your illness and recovery to new health. The Duke Liver Transplant Team is made up of a diverse group of healthcare professionals, including physicians, nurses, social workers, pharmacies, dietitians, and medical psychologists. Initially, these specialists will help you determine if a liver transplant is the right treatment for you.

After you have been listed for transplant, you will attend the Liver Transplant Clinic. Until this time, you may have seen only one of the medical doctors. You will eventually meet each of the doctors on the team. If you are admitted to the hospital, the doctor who is rounding on the inpatients will care for you. When you have your surgery, the surgeon who is on call will perform your surgery. The advantage of getting to know each doctor is that he will have met you and will know you when it is time for your transplant. The following is a list of Liver Transplant Team members and a brief description of their roles. We suggest that you write down the names of your team members as you meet them to help you remember who they are.

Transplant Coordinator

This experienced nurse will teach you about your liver disease, treatments, and how to take care of yourself after liver transplant. The nurse coordinator is your fastest and most direct access to assistance regarding new problems, questions, or results.

Transplant Hepatologist

This doctor specializes in liver disease and liver transplantation. He or she will evaluate your current liver disease and will discuss the option of liver transplantation with you.

Transplant Surgeon

This is the doctor who performs the operation. He or she will explain the liver transplantation surgery to you.

Social Worker

This specialist will help determine your ability to cope with the impact of liver transplantation on you and your family by asking you about your family life and social habits. He or she may provide counseling or be a resource for social and community resources.

Medical Psychologist

To help us understand how you might react to the stress from the transplant, you may visit with our team psychologist even if you have no history of mental illness. Our psychologists have a great deal of experience in dealing with patients before and after their liver transplant.

Financial Coordinator

The coordinator works closely with you and your insurance plan to determine that your transplant is financially approved before you are placed on a waiting list for your new liver. They may also advise you about fundraising methods, if necessary, to pay for expenses not covered by your insurance.

Anesthesiologist

This physician will talk to you about how you will be put to sleep during surgery and how any postoperative pain you may experience will be managed.

Dietitian

This specialist will help you understand your dietary needs and determine the foods and nutrition that are best for you during the transplant process.

Pharmacist

The pharmacist is a specialist who will explain your medications to you, their purpose, and how they interact with each other. He or she will make sure the regimen you are on is the best one for you.

ABOUT LIVER TRANSPLANT

Liver transplantation is a sophisticated, effective therapy for end-stage liver disease. In this procedure, a patient's diseased liver is removed and replaced with a healthy liver from a recently deceased organ donor or a live donor. The liver transplant program at Duke University Hospital (DUH) began in 1984. Since then, we have performed more than 900 liver transplant procedures. Our work in this exciting field has also enhanced the prospects of liver transplant patients around the nation by contributing to advancements in transplant techniques, treatments, and research.

For many patients and their families, the prospect of undergoing a liver transplant makes them a little anxious and uncertain. This information may help relieve some of those feelings by explaining what you may experience as a liver transplant patient at DUH. We have included information about your health prior to surgery, the surgery, and what to expect during your recovery.

This information is intended to answer many of your questions. However, you may find that you have several more. If so, we suggest you write your questions in the space provided in the last section. Some patients start a notebook for information. This will help you remember to discuss your questions with the members of the transplant team at your clinic visits.

The Liver

The liver is the largest and most important organ in the body. It is located under the rib cage on the right side of your body. It serves many purposes, but there are three that are most important. First, the liver receives all of the blood and nutrients absorbed from the intestine. The liver acts like a processing station for these nutrients. In addition, any toxins absorbed from the intestine are neutralized in the liver. Second, the liver produces bile that is emptied into the intestine through bile ducts that connect the liver to the intestine. The bile is required to help the intestines digest all of the food that you can eat.

The liver is the factory that produces almost all of the proteins found in your blood. These proteins help your body perform many of its important functions, like helping you to clot your blood after you cut yourself and helping the body fight off infection.

Because the liver does so many different things, when it doesn't work, many of the normal functions of your body break down. You can't process nutrients from your intestines; therefore, you may develop fatigue and weakness. Fluid may build up in your abdomen because of abnormal blood flow in the liver. These and other symptoms may appear as your liver function worsens. All of these problems may be reversed with a transplanted liver.

Reasons for Transplantation

Liver transplantation is indicated when the liver is so diseased that it can no longer perform vital functions and when the liver disease cannot be corrected in any other way. The causes of end-stage liver disease vary. The following liver diseases are common reasons for transplantation:

- Alcoholic cirrhosis
- Alpha-1 antitrypsin deficiency
- Autoimmune hepatitis
- Biliary atresia
- Hepatitis B
- Hepatitis C
- Primary biliary cirrhosis
- Sclerosing cholangitis

Some other liver diseases may also lead to liver transplantation. Most patients have chronic disease that over many years leads to cirrhosis. Cirrhosis is irreversible scarring of the liver.

Liver Donation and Allocation

When listed as a candidate for liver transplantation, your name is placed on a national transplant list. All transplant candidates in the country are listed in a national donor computer system through the United Network for Organ Sharing (UNOS). The Carolina Donor Service (CDS) works with UNOS to coordinate transplants in this region of North Carolina. Donor livers are matched with recipients according to the following criteria:

- Blood type (O, A, B, or AB)
- Body size
- Severity of disease

Quality of the donor liver is of the utmost priority; it must be healthy and without evidence of damage or disease. Before the liver is accepted for a transplant, it is thoroughly evaluated. This evaluation includes examination of the donor's medical history, social history, and liver function studies. Donors are also carefully tested to be as sure as possible that they have no transmissible disease, such as AIDS, hepatitis or cancer.

When a donor liver becomes available, it is given to the sickest person on the waiting list who matches the donor size and blood type. How sick you are is based on a score (called MELD score) that is calculated using recent blood work results. These results are entered into the national waiting list computer when you come to clinic or have labs done at home at our request. You may need blood work done without seeing the doctor at times so that we may recertify your score in the computer.

Living Liver Donation

Living liver donation has become one method of creating more donors for those who may not be able to wait for a deceased donor. Living donors may be related or have a close personal relationship with the person who is sick. Living donation allows part of the liver of an adult donor to be removed and transplanted into the person with liver disease. There have been several thousand of these procedures performed in the United States.

By 90 days, both the transplanted portion of the liver, and the donor's residual liver will have grown to full size. All functions that the liver performs will be able to be completed by both parts of the liver.

Donors must be in excellent health to donate. Careful assessment and evaluation is given to both the donor and the recipient to ensure that each person will be able to survive and that each will have no other effects from such a large procedure. Your hepatologist or nurse coordinator is available to speak with you about living donation options after you are listed for transplant.

Waiting for Your Transplant

Unfortunately, there are more people waiting for a liver transplant than there are livers donated each year. Because of the small number of donors, the waiting period for a liver transplant varies. How long you wait will depend upon your blood type and the severity of your liver disease. We have no way to predict when you will get a liver transplant. This period is understandably frustrating, stressful, and can be discouraging.

It's important to remember during this difficult time that no one has any control over when a donor liver becomes available. You will be seen in the Liver Transplant Clinic during your pretransplant waiting period on a regular basis to be sure you are not having worsening complications of your liver disease. Our goal is to maintain your health at the best possible level so you will be able to have a transplant when available. While you are waiting, we strongly encourage you to participate in an exercise program. Physical exercise will help you maintain your strength and endurance in preparation for your transplant and increase your chances to do well afterward. Good nutrition is also a must while you wait for your new liver. A nutritionist is available as a resource for diet counseling.

MAINTAINING HEALTH WHILE WAITING FOR TRANSPLANT

A new liver means new responsibilities. If we determine that a transplant would be the best treatment for your liver disease and you wish to proceed with a transplant, you will need to commit to caring for yourself to ensure the best health possible. This is a lifetime commitment.

Our goal prior to your transplant is to maintain the best possible health. Our whole team will be working very hard for this goal. We will act as your advocates and do everything in our power to get a liver for you. In return, we expect you to be an active participant in your health care. This means eating properly, exercising, quitting smoking, taking your medications as prescribed, informing us of any changes in your health, keeping your appointments, and avoiding all recreational drugs and alcohol. You and your family are the keys to this goal.

While the time that you wait may be long, it is important that you speak with the nurse coordinators for any of the following:

- If you are hospitalized at home.
- Your fluid or thinking are becoming altered or are worsening.
- You notice you are more jaundiced or yellow in the eyes or skin.
- Your support system changes, and you have nobody to help you.
- Your insurance or financial situation changes.
- You will be out of town for a period of time. Leave your contact numbers and how you may be reached with our secretary at 919.613.7777, Option 3.

If it is the evening, night time or the weekend and the call is urgent, call 919.684.8111 and ask for the liver transplant nurse coordinator on call. This would include notification of a patient becoming more acutely sick, being hospitalized, or having new problems. Stay on the line while the operator places the page. The call will be returned immediately, and the operator will connect you with the coordinator.

Please recognize that the transplant nurse coordinators are not at the hospital during non-business hours. We are available for urgent needs after hours. We want to attend to your needs in the most efficient manner possible.

A transplant is a very serious operation, and the better shape your body is in before the surgery, the less likely you are to have complications afterward. That is why the team may be encouraging you to lose weight, to exercise, and to stop smoking. Not smoking is extremely important because the medicines used to prevent rejection after transplant can increase your risk of developing cancer.

We have a zero-tolerance policy when it comes to alcohol and drugs. We may randomly screen you for drugs and alcohol, or we may call you to report to your local doctor for testing. Randomly means that we can call you on any day and ask you to have blood work or to provide a urine sample.

If you are found to be using drugs (any type of illegal drugs or prescription medicine not prescribed for you) or drinking (any type of alcohol, including beer and wine), you will be suspended (inactivated) from the waiting list for a minimum of six months. You may also be required to enroll in a recovery program to become reactivated on the waiting list. Three drug- or alcohol-related suspensions will result in permanent removal from our transplant waiting list. Please note that refusal to take a test when asked will be treated as a positive test by our team.

Similarly, failure to keep your appointments will be seen as a lack of commitment on your part. The transplant team reserves the right to suspend (inactivate) you from the list for unexplained missed appointments.

Routine Appointments

You will be seen by the transplant team on a regular basis for review of your health and to prevent and manage any complications of your liver disease. It is important that you keep the appointments as scheduled, especially if there are procedures or studies planned for your visit. If you cannot come to an appointment, you should contact the Liver Transplant Office. It is your responsibility to reschedule your appointment if you miss your appointment.

While you are waiting for your transplant, you should continue to see your local doctor for general health issues as well as new problems. Your local doctor should be the first person to help with acute problems. They can contact us to arrange urgent appointments if they think your symptoms require rapid evaluation by our team. In most cases, your local doctor can assist you.

Medications

You should take medications as they are prescribed by your physician. Medications may be adjusted as needed, depending on your illness or problem. If you need medication refills, you may contact the Liver Transplant Office to request refills for medicines that are prescribed by the transplant team. Medicines prescribed by your local doctor should be refilled by that office.

Herbs, some nutritional supplements and other nonprescribed holistic remedies are highly discouraged. These products are not regulated or monitored by the U.S. Food and Drug Administration (FDA). We have no way to know the impact they will have on your health or the interactions they will have with your prescribed medications. Please talk about any of these products with the hepatologist or the nurse coordinator.

The financial coordinator will explain insurance coverage or limitations. If you have limited insurance coverage for medications, you will be asked to fund raise for your future costs. The financial coordinator will direct you to resources for fundraising.

Avoid Drugs and Alcohol

As previously discussed, we have a zero-tolerance policy about the use of alcohol and illegal drugs such as marijuana and cocaine. Prescription pain medicine abuse can also be considered in this category. You may be randomly (that means at any time) tested for drugs in your blood or urine. If you are found to be actively using drugs or alcohol, your status will change to inactive for six months; we would not transplant you during this time. There are no exceptions to this rule.

Develop a Support System

Your family will be your biggest support system while you wait and after your liver transplant. There may also be others who you will have to help you such as friends or neighbors. They are welcome at any time to come to clinic with you to learn more about the transplant.

Another very good support is The Liver Connection support group. Patients and their families who are waiting for liver transplant or who have had a liver transplant are invited to attend the support group. It is a safe place to share thoughts, feelings, and experiences about liver disease and transplant. There are also educational presentations related to transplant. This group meets every Monday from 9 am–10 am in the conference room across from Clinic 2C. For more information, contact the liver transplant social worker.

Nutrition and Liver Disease

Everything we eat must be processed and cleaned by the liver. With a healthy liver, 85-90% of the blood that leaves the stomach and intestines carries important nutrients to the liver where they are stored or absorbed by the body for use. A healthy liver also produces bile, which is emptied into the intestines and helps to digest everything you eat. With a diseased liver, many normal functions of the liver are not performed well. When you cannot process nutrients from your liver and intestines, you may feel tired and weak. Fluid buildup in your abdomen, called ascites, may also occur because of abnormal blood flow to the liver. In the later stages of liver disease, your liver is not able to process protein-rich foods as well. This can lead to a buildup of toxins in your bloodstream, causing the altered thinking known as encephalopathy. Malnutrition is also a significant complication of chronic liver disease. Following specific dietary guidelines can decrease all of these complications of liver disease. The guidelines are as follows:

Limit sodium (or salt) intake in your diet.

- High sodium can lead to an increase in fluid buildup in the abdomen. Too much sodium can also cause fluid retention in other parts of your body, usually seen in the ankles. High sodium also causes increased blood pressure.
- Your diet should only consist of 2,000 mg of sodium a day.
- Never add salt to food. Keep the salt shaker off the table. Salt substitutes should be avoided.
- Do not cook with salt or salt-containing seasonings. Use herbs and spices in cooking to replace salt.
- Avoid foods with visible salt, like crackers, chips, pretzels, salted nuts, salted popcorn, and salted french fries.
- Limit highly processed foods. Canned, preserved, and processed foods contain high amounts of sodium. Watch out for processed meats, cheeses, canned soups, frozen dinners, and pickles.
- Limit dinner and side dish mixes that come with sauce and/or seasoning packages, like Hamburger Helper, Rice-a-Roni, macaroni and cheese, and au gratin potato mixes.

• Limit high-sodium sauces, like soy sauce, canned spaghetti sauce, and packaged sauce, gravy, and seasoning mixes.

Eat a healthy diet.

- It is important that you are in good nutritional health for liver transplant. You will recover faster and generally do better. When your body doesn't receive the nutrients it needs, it takes the protein from your muscles for energy. This causes weight loss and decrease in muscle mass and, therefore, strength. A balanced diet with adequate calories, proteins, fats, and carbohydrates can help the damaged liver regenerate new liver cells.
- The diet should be high in complex carbohydrates (55%–60% of calories), low in total fat (25%–30% of calories), and moderate in protein (15%–20% of calories).
- Five or six smaller meals should be eaten per day.
- Choose a variety of fruits and vegetables daily.
- Choose a variety of grains each day, especially whole grains.
- Choose a diet that is low in saturated fat and cholesterol and moderate in total fat.
- Choose beverages and foods to limit your intake of sugars.

Aim for a healthy weight.

Being overweight increases your risk of developing diabetes, high blood pressure, and heart disease. Obesity can also cause complications with surgical wound healing following liver transplant. Eating a healthy diet and being physically active every day are very important for weight loss.

Being below your ideal body weight for your height can also cause increases in malnutrition and surgical complications. Eating a healthy diet and being physically active are also very important to help gain weight and improve muscle mass. The transplant team may recommend a healthy weight goal to prevent complications after surgery. A nutritional consult is available for all patients. You may need to limit your fluid intake. Your physician will decide if this is necessary

PREPARING FOR A TRANSPLANT

We want to help you and your family prepare for your transplant. Making plans for your needs before your transplant can reduce the amount of stress you will have to cope with during the recovery process. You will probably have to make some changes in your plan as your situation changes. Please keep us up to date on changes as they occur.

When you are called to come to the hospital for your transplant, it is vital that we be able to find you quickly at any time of the day or night. You need to have a reliable plan for getting to the hospital on very short notice. Once you have received your transplant and are ready for discharge from the hospital, you will be required to stay in the local area for 2-4 weeks if you live more than 1 hour away. This gives the transplant team an opportunity to monitor your progress closely through frequent clinic visits before you go home. It is important to plan for your needs during the outpatient recovery stay. Also, it is important to make plans for obtaining your medicines. You will need to have your prescriptions filled before you leave the hospital.

Liver Transplant Readiness

When a donor liver becomes available for you, there is literally no time for delay. Therefore, you must be available to the liver transplant team members at all times. Your transplant coordinator will talk about methods for reaching you even when you are away from home. We will also obtain a list of relatives or friends who would know your location and how to reach you. While the actual amount of time that will be available for you to reach the hospital will vary, we generally ask that you be able to reach the hospital in six hours or less.

If you live farther away from Duke than a six-hour drive, we will talk about faster methods of transportation or relocation to the Durham area. This may involve the use of a helicopter or of a private charter jet service. Your transplant coordinator will help you decide which method of transportation will be the best for you.

When a donor liver has been identified for you, you will be called at home by the transplant coordinator. If there is no answer at your home number, we will try the other contact numbers you have given to us. You will need to come to the hospital as directed by the transplant coordinator.

Sometimes, after patients have arrived at the hospital and are ready for surgery, the transplant has to be canceled because the donor liver quality is not good enough. We hope this will not happen to you, but if it does, we will continue to care for you and prepare you for another opportunity. Having your transplant tentatively scheduled then later canceled due to deterioration of the donor or liver has no negative effect on a future transplant.

If you receive an organ offer and refuse to come at that time, you will be made inactive on the transplant list. This means that you will not be eligible for another offer until you have met with the transplant team.

YOUR TRANSPLANT

When you receive your phone call from the transplant coordinator, she will tell you when to stop eating and drinking. You will be instructed to come to the Duke Hospital. You may come to the Admitting Department or to the Emergency Room.

Upon arrival, you will be prepared for surgery. A chest X-ray, EKG, and routine blood tests will be done. After you are examined by the transplant team doctors and nurses, you may have some time to spend with your family before you go to the operating room.

Your operation will probably last from 5 to 8 hours. Your family will be shown where to wait and will be kept informed of your condition during surgery. You will be taken to the operating room on a stretcher. You will find that the operating room is cool and contains quite a bit of equipment. This equipment is used to monitor your lungs, heart and blood pressure during the surgery. You will also see many members of the team as they prepare you for the operation.

Liver Transplant Surgery

The abdominal incision for your liver transplant is a large one. It starts at the base of your breast bone and goes along the left and right rib cages. Once the transplant surgeons are notified that the donor liver is good, they will begin to remove your diseased liver. The diseased liver is totally removed only after the donor liver arrives in the operating room.

Connections, called anastomoses, attach the new liver, blood vessels and bile ducts. Once all the connections are made, your abdomen is closed, and you are taken to the Surgical Intensive Care Unit (SICU).

Once the doctor has spoken with your family after the surgery, it will be 90 minutes—two hours before they can see you in the ICU. This is a good time for them to try to call family members and friends at home, eat a meal, or check into the hotel.

AFTER YOUR TRANSPLANT

The Surgical Intensive Care Unit

Immediately following your transplant surgery, you will be brought from the operating room to the Surgical Intensive Care Unit (SICU). Once in the SICU, it will take approximately one hour for the nurses to do their initial assessments and orders and help you get comfortable. The nurses will then call in your family members so that they may see you. You will still be somewhat sleepy because of the anesthesia. You may not remember most of your time in the ICU. After that initial visit, your family may see you during the SICU regular visiting times which are 10:30 am–6:30 pm and 8:30 pm–10 pm.

Once you wake up, it is normal to feel confused. Your nurses will tell you that your surgery is over, and they will tell you what day it is, what time it is, and where you are. You may also still have a breathing tube in your mouth from surgery. The breathing tubes are usually removed once you are fully awake from anesthesia.

You will have a small tube in your nose that goes to your stomach, called a nasogastric (NG) tube. This tube will drain your stomach contents and help prevent you from feeling nauseated. The NG tube will be removed after your anesthesia wears off and your stomach and intestines begin to work again.

You will also have a large IV catheter in a vein in the side of your neck. This will allow us to monitor your heart function closely. You may have an IV in your arm for fluid or medication and another in your wrist to continuously monitor you blood pressure.

You will have several drainage tubes in your abdomen. These tubes, designed to drain fluid and air from the space around the new liver, will be connected to suction bulbs for a few days to help remove fluid more efficiently. These tubes will usually be removed within the first week after your transplant.

You will have a catheter in your bladder to drain your urine. Your nurses will measure and record your urine output every hour to ensure that you stay in good fluid balance. The bladder catheter will be removed within two to three days.

Finally, you will have a small sensor on your finger or earlobe connected to a machine at your bedside (called a pulse oximeter) to monitor your pulse rate and the oxygen level in your blood.

Every patient experiences pain after a major operation, but each person feels differently. Usually in the first few hours after surgery, you will get pain medicine through your IV. The nurses may give you this medicine or you may have a machine that lets you control when you get pain medication. Please let the nurses and doctors know if your pain is not being controlled, so that different treatment measures can be ordered. Most patients stay in the SICU 24 to 48 hours before going to the Transplant unit. Individualized responses and complications may extend your ICU stay.

Physical Therapy

While you are in the SICU, your nurses will help you exercise your legs to reduce the risk of blood clots. After your breathing tube is removed, you will be encouraged to turn, cough, breathe deeply, and expand your lungs to decrease the risk of pneumonia.

You will progress quickly to sitting on the side of your bed and dangling your feet, then to getting up in a chair within a day or two after your surgery. You will likely be able to walk by the second or third day. Physical therapists are available to assist you in progressive ambulation and exercise.

Intermediate and Stepdown Care

When you are ready to leave the SICU, you will be transferred to the transplant surgery stepdown unit. On this unit, you will continue to recover and regain your strength. Again, each person recovers at his or her own rate. As you recover, the IVs, drains, and dressings will be removed. You will have daily blood work so we can check for organ function; the blood work also helps us to see that your antirejection medicine is at the correct level.

Your physical activity will continue to be a priority. You should walk at least twice a day, increasing your distance each time. Most patients are able to walk one mile per day by the third or fourth week after surgery and can go back to supervised treadmill and/or bicycle therapy in even less time.

Your education about how to care for yourself when you go home will begin over the next few days. The coordinator will speak with you and your family about monitoring for infection and learning when to call the transplant team and other common post-surgical topics. The transplant pharmacists will teach you about your medicines, and you will begin to take your medicines with the help of the staff nurses prior to going home.

You can expect to be discharged from the hospital within one to two weeks after your operation, but you may need to remain in Durham for another two weeks for frequent clinic visits. Remember that each person is different, and your recovery depends on your progress or development of complications.

Caring for Yourself after Transplant

- *Medications*: After a liver transplant, you will have medications to take for the rest of your life. These medications are very expensive and have some side effects. The financial coordinator will explain insurance coverage or limitations. If you have limited insurance coverage for medications, you will be asked to fund raise for your future costs. The financial coordinator will direct you to resources for fundraising.
- *Monitoring*: You will be asked to record your blood pressure, weight, temperature, and fluid intake and output each day.
- *Healthy Habits*: After the transplant, you will be expected to maintain a well-balanced diet and exercise regularly to keep yourself in good physical condition.
- Frequent Check-ups: You will need to return to Duke frequently for outpatient tests and Liver Transplant Clinic visits. You must also be seen by your local physician to provide

routine and acute care. Communication with the transplant coordinators about changes in your health before and after transplant is essential.

Your Long-Term Outlook

While a liver transplant represents a great hope for people with end-stage liver disease, various complications can occur after liver transplantation. These may include rejection, infection, technical complications, and recurrence of original liver disease. During your hospitalization, we will teach you about your medicines and how to monitor your incisions and drains daily. Often, the first sign of liver dysfunction is seen in your lab work. That is why we ask you to come to the clinic frequently to monitor these values. Any changes in your liver function or other symptoms will be evaluated thoroughly. It is important that we carefully decide the cause of your symptoms so that we can treat you appropriately.

While complications are always a possibility, it's important to remember that the single most important factor in the outcome of your transplant is you. Liver transplantation is a lifelong commitment, one with lasting impact on every aspect of your existence. So take your responsibility seriously—and take good care of yourself.

The Duke Liver Transplant Team knows that going through a major medical procedure like this can be a trying time, and we want very much to help you through this process. Please let us know of any way we can help ease your confusion and anxiety. We look forward to working closely with you.

RESOURCE DIRECTORY

We want to help you and your family deal with concerns that may arise before or after your transplant. Your social worker, transplant coordinator, and physician can give you information on resources for your particular needs. In the following pages, you will find a listing of resources that may be useful. Please note that there are hundreds of Internet Web sites about liver disease and transplantation. We recommend only those we know will provide reliable information.

Information and Resources

Duke University Health System Organ Donation

www.dukehealth.org United Network for Organ Sharing

1.888.894.6361 www.unos.org

Carolina Donor Services Organ Procurement & Transplant Network

1.800.200.2672 optn.transplant.hrsa.gov

www.carolinadonorservices.org

Liver Disease Biliary Atresia and Liver Transplant Network

American Liver Foundation 719.987.6200

1.800.223.0179

www.liverfoundation.org

American Liver Society

www.liversociety.org

www.transplantliving.org

Transplant Information

www.transplanthealth.com

www.transplantliving.org

www.transweb.org

National Foundation for Transplant Information for Fundraising

1.800.489.3863 1.800.489.3863 www.nft.org

Related Information and Support Services

Smoking Cessation Alcoholic Anonymous Referral

1.800.QUIT.NOW 919.711.6375 www.smokefree.gov www.aa.org

American Lung Association National Cancer Institute (smoking cessation)

Information, smoking cessation, local support www.cancer.gove

groups www

919.834.8235 www.lung.org

National Clearing House for Alcohol and Drug Social Security Disability Hotline

Information NC statewide information and assistance related

Brochures and pamphlets on alcohol, tobacco, to Social Security, Disability, or SSI

and other drugs 1.800.638.6810

Counseling and Substance Abuse Services

Check local listing for mental health center

Centers for Medicare & Medicaid Services

Information on Medicare coverage

1.800.672.3071

www.medicare.gov

www.cms.hhs.gov

NC statewide information and assistance related to Social Security, Disability, or SSI Medicare County Department of Social Services (DSS): Medicaid persons with low income and few assets may apply in the county in which they reside for assistance with medical expenses. DSS also manages food stamps, aid to families with dependent children, fuel assistance, and other emergency funds.

1.800.672.3071

Social Security Administration

Assists with applications for retirement, survivorship, disability, and supplemental security income and Medicare benefits. You may begin your application by calling the toll-free number.

1.800.772.1213

www.socialsecurity.gov

Veteran's Administration Benefits Office

1.800.827.0000

Veteran's Affairs Medical Center (Durham)

919.286.0411

NC Division of Veteran's Affairs

919.733.3851

NC Division of Vocational Rehabilitation

A state-sponsored program that provides services to help disabled persons obtain jobs. Services include evaluation, special training, job counseling, and funding for services to help you

Pharmaceutical Research & Manufacturer's Association of America (PhRMA)

www.phrma.org

1.800.762.4636

Pharmacies

You may choose to use a local pharmacy in your hometown or a specialty mail-order pharmacy. Your insurance case manage can help decide which is the best option for you. If you will be staying in Durham after your transplant, we will give you two sets of prescriptions; one for a local pharmacy and the second set will be for your hometown or mail-order pharmacy).

Local Late-Night Pharmacies

Duke Outpatient Pharmacy Rite Aid Pharmacy

919.684.2908 7 am–12 midnight M–F; 7 am–11 pm Sat; 8

am-11 pm Sun.

LaSalle Street and Hillsborough Road

919.383.5591

CVS

Cole Mill Road and Hillsborough Road Martin Luther King Road

919.383.0171 919.419.9798

Walgreens Southpint Pharmacy-24 hour Kerr Drugs-Duke Medicine Plaza

6405 Fayetteville Road 8 am–10 pm M-Sat; 1pm–6 pm Sun.

919.544.6430 Hillandale Road 919.383.9428

The **Duke Outpatient Pharmacy** is located on the first floor of the Duke Clinic. The pharmacy's hours are 9 am to 5:30 pm, Monday through Friday. The pharmacy can file electronic claims for patients. Check with the pharmacy to be sure they can process your insurance. They also file Medicare (if you had your transplant while covered by Medicare), North Carolina Medicaid, Children's Special Health Services, and other special programs. The pharmacy accepts major credit cards.

Specialty Pharmacies

Many recipients utilize special transplant pharmacies to obtain their medications. The benefits of such pharmacies are that they file insurance claims for you (including Medicare when eligible) and offer fast Federal Express services and competitive prices. You should check with your insurer to determine which one you are allowed to use.

APP Chronimed 1.800.277.9787 1.800.888.5753

 CVS Procare
 Merck-Medco

 1.800.238.7828
 1.800.282.2881

Pharmaceutical Programs

Some pharmaceutical companies provide support programs for patients who may not be able to obtain medication due to financial limitations. You should discuss concerns with the financial coordinator prior to your transplant.

Sometimes insurance benefits change after transplant. You need to notify the nurse coordinator if this is going to happen. The nurse coordinator will facilitate this process. You must be referred to the special pharmaceutical programs by a physician.

LODGING & TRANSPORTATION RESOURCES

Lodging

Most local hotels/motels offer discount medical rates, so be sure to mention that you are in Durham for medical care. A few offer special rates or services to transplant recipients. Please ask your social worker for current information. You may also want to check with your insurance company prior to your transplant to see if it will offer you financial assistance with lodging if you need to temporarily relocate to the hospital.

Duke Medical Center is not affiliated with listed lodging facilities below. However, many of these lodging facilities include transportation to Duke and 24-hour shuttle service as well as additional amenities, such as mini-kitchen set- ups, free high-speed Internet access, complimentary breakfast, onsite laundry/dry clean service, as well as reduced medical rates. Many facilities also allow pets. Please contact chosen individual location for detailed list of desired amenities.

Hotels within five miles of Duke

The following hotels are within a five mile radius of Duke University Medical Center and provide shuttle services to and from the hospital.

Brookwood Inn, 2306 Elba Street, Durham, NC 27005 919.286.3111, within walking distance to hospital.

Durham Hilton, 3800 Hillsborough Road, Durham, NC 27705 919.383.8033 or 800.445.8667

Millennium Hotel, 2800 Campus Walk Avenue, Durham, NC 27705 919.383.8575

University Inn, 502 Elf Street, Durham, NC 27705 919.286.4421 or 800.801.3441

Washington Duke Inn, 3001 Cameron Boulevard, Durham, NC 27705 919.490.0999 or 800.433.5853

Hotels and Motels

Budget Inn, 2101 Holloway Street, Durham, NC 27703 919.682.5100, www.budgetinn.com

Carolina Duke Motor Inn, 2517 Guess Road, Durham, NC 27705 919.286.2771 or 800.438.1158, www.carolinainn.com

Comfort Inn, 1816 Hillandale, Durham, NC 27005 919.471.6100 or 800.426.7866, www.comfortinn.com

Courtyard by Marriott, 1815 Front Street, Durham, NC 27705 919.309.1500 or 800.321.2211, www.marriott.com

Days Inn, 33460 Hillsborough Road, Durham, NC 27705 919.383.1551 or 800.DAYS.INN, www.daysinn.com

Duke Tower Hotel, 807 W. Trinity Ave, Durham, NC 27701 919.687.4444 or 866.385.3869, www.duketower.com

Durham Hilton, 3800 Hillsborough Road, Durham, NC 27705 919.383.8033 or 800.445.8667, www.hilton.com

Durham Marriott at the Civic Center, 201 Foster Street, Durham, NC 27701 919.768.6000 or 800.768.6000, www.marriott.com

Econotel, 2337 Guess Road, Durham, NC 27705 919.286.7746

Holiday Inn Express, 2516 Guess Road, Durham, NC 27705 919.313.3244, www.hiexpress.com

Motel 6, 3454 Hillsborough Road, Durham NC 27705 919.309.0037 or 800.466.5337

Innkeeper – Durham South (RTP I-40), 4433 Hwy 55 (I-40 Exit Hwy. 55), Durham, NC 27701 919.544.4579 or 800.466.5337

LaQuinta Inn, 4414 Chapel Hill Blvd (Hwy 15-501), Durham, NC 27707 919.401.9660 or 800.531.5900, www.lq.com

Quality Inn, 3710 Hillsborough Road, Durham, NC 27705 919.382.3388 or 800.228.2800, www.duke85.com

Radisson Governor's Inn – RTP, I-40 at Davis Drive, Exit 280, Durham, NC 27709 919.549.8631 or 800.333.3333, www.radisson.com

Red Roof Inn, 1915 North Pointe Drive, Durham, NC 27705 919.471.9882 or 800.843.7663, www.redroof.com

Residence Inn (Marriott), 1919 Hwy, 54 East (I-40 Exit 278), Durham, NC 27713 919.361.1266 or 800.331.3131, www.marriott.com

Staybridge Suites, Durham/Chapel Hill, 3704 Mt. Moriah Rd, Durham, NC 27707 919.401.9800, www.staybridge.com

Scottish Inn, 5303 Hwy 70 West, Durham, NC 27705 919.383.2561 or 866.271.9880

University Inn, 502 Elf Street, Durham, NC 27705 919.286.4421 or 800.801.3441, www.universityinnduke.com

Wingate Inn RTP/RDU, 5223 Page Road, Exit 282 at I-40, Durham, NC 27703 919.941.2854 or 800.228.1000, www.wingatehotels.com

Suite Hotels/Apartments/Extended Stay

Clairmont at Hillandale	The Hamptons at RTP Apartment Homes
2901 Bertland Avenue, Durham, NC 27705 888.429.1315. 1.7 Miles from Duke. 1, 2, 3 bedroom apartments, furnished available. Washer/Dryer in each and attached garage. 3, 6, 12-month leases.	300 Seaforth drive, Durham NC 27713 919.484.1321 or www.thehamptons.com Studio, 1, 2, or 3 bedroom furnished corporate suites. Pets, pool, fitness center, business center.
Colonial Village at Deerfield	Hawthorne Suites
910 Constitution Drive, Durham NC 27705 919.383.0345	300 Meredith Drive, Durham, NC 27713 919.361.1234 or 800.527.1133

DoubleTree Guest Suites 2515 Meridian Parkway, Durham, NC 27713 919.361.4660 or 800.222.TREE 15 minutes to Duke, continental breakfast.	AARP/AAA discount. Full breakfast, full kitchen services, separate living/dining and bedrooms. The Heights at LaSalle 500 South LaSalle Street, Durham, NC 27705 919.309.1292 or leasinglasalle@worthingse.com Less than one mile from Duke. Short term lease, furniture rental available, pet friendly, pool, fitness center, elevators, washer/dryer in unit
	available.
Edinborough at the Park 200 Edinborough Drive, Durham NC 27703 919.941.9635 1, 2, 3 bedroom apartments, clubhouse, gated, swimming pool. 15 minutes from Duke.	Homestead Studio Suites 4515 Highway 55 (RTP) 1920 Ivy Creek Blvd, Durham, NC 27713 919.544.9991 or 919.402.1700 Includes kitchen, free local calls, wireless, petfriendly and van to Duke.
The Evergreens at Mount Moriah 5512 Sunlight Drive, Durham, NC 27707 919.489.8788 1, 2, and 3 bedrooms, corporate apartments. Mail concierge service, valet dry cleaning, lap pool, tennis courts, fitness center.	Homewood Suites 3600 Mt. Moriah Rd., Durham, NC 27707 919.401.0610 or 800.225.4663 Six miles from Duke. All suites, fully equipped kitchens, complimentary breakfast and evening social hour, outdoor pool spa, exercise room, shopping and restaurants within walking distance.
Extended Stay America 3105 Tower Blvd, Durham, NC 27707 919.489.8444 or 800.398.7829 10-15 minutes from Duke, fully furnished studios, full kitchen, laundry, cable, data port, free voicemail and local calls.	Oakwood Corporate Housing 800.520.5288 1, 2, and 3 bedroom apartments.
Forest Apartments	West Village Corporate Lofts
800 White Pines Drive 919.383.8504 Five minutes from Duke, fully furnished and accessorized studio, 1 and 2 bedroom suites, business center, laundry facilities, fitness center.	604 West Morgan Street, Durham, NC 27705 919.682.3690 or www.westvillagedurham.com Fully furnished suites, cable and internet service, housekeeping, coffee bar, free local calls, business center, fitness center, laundry facilities, and pets.
Studio Plus	Wynne Residential
2504 NC Highway 54, Durham, NC 27713 919.361.1853 or 800.646.8000 Swimming pool, laundry, exercise room, fully equipped kitchens in all rooms, free local calls, data port, and extended cable.	1013 Southpoint Crossing, Durham, NC 27713 919.484.8999 or 800.477.6922 Two communities offering fully furnished accommodations with washer and dryer, pool, business center, fitness, and children's play area.
Trinity Commons Apartments 2530 Erwin Road, Durham, NC 27705	

919.309.1409 or www.trinityco	nmons.com
1, 2 bedrooms, rental furniture p	lans, pets OK,
walking distance to Duke, parking	ng, many
amenities.	

Other Lodging Options

Nearby camping facilities

Duke Oversized Parking, Garage II, 919.684.5773

Birchwood RV Park, 919.493.5573, 5901 Wilkens Drive, Durham, NC 27705

Southern Country Inn, Hillsborough, NC 27278 919.732.8101

Spring Hill RV Park, 3500-1A Old Greensboro Road, Chapel Hill, NC 27516, 919.967.4268 or 800.824.8807

PARKING

Parking Fees

Hospital garage parking fees are based on an hourly rate. Discount parking books are available for inpatients and their families and can be purchased at the parking office or at the Auxiliary gift shops. Please call the Medical Center Traffic Office at 919-684-5773 for more information.

Valet Parking

Valet parking service is available at DUH, Duke Clinic, Duke Emergency Services, and Morris Cancer Clinic. Discount parking books cannot be used for valet parking.

Duke University Hospital

M-F, 7 am to 10 pm; \$7/day

Saturday – Sunday, 10 am–6 pm; \$7/day

Duke Emergency Services

Available 24 hours a day, every day

Free for ER patients

Duke Clinic

Entry 1 (main entrance) M-F, 7:30 am-6 pm; \$7/day

Morris Cancer Clinic

M-F, 7 am to 6 pm

Free for radiation/oncology patients

Duke Transportation Options

Transport Services

Duke University provides free bus service to all campuses and the Medical Center for students, employees, patients, and visitors.

All routes served by Duke Transit are accessible to persons with disabilities. In addition, Duke's after-hours SAFE Rides program employs an on call accessible van. Accessible Duke University buses can be identified by the international accessibility symbol on the side of each bus.

Transit Information

Parking Services

919.684.2218 or 919.681.4001

919.684.5773

Safe Escort Service

919.684.SAFE (7233)

Liver Transplant Program

IOTES AND QUESTIONS