

After the Surgery

Congratulations!

Your transplant operation is over and you now have your new liver. As you are recovering, we will begin to prepare you to go home. This booklet will give you extremely important information, including specific guidelines on how to take care of yourself for the rest of your life. It is very important that you learn this information. The transplant coordinators, doctors, and nurses will review the material with you.

It is necessary that you understand every detail of your care before you are released from the hospital. You must know what medications to take, at what time, what amount, and for what reason. You must also know the signs and symptoms that could indicate problems with your transplant, how to watch for them, and how to report them.

You will also be responsible for monitoring your health at home and for keeping daily records. You must bring these records with you each time you come to the Liver Transplant Clinic for a follow-up appointment. This will allow us to monitor your condition with you, and to be on the lookout for any problems that may occur.

A review of the progression after surgery

Your operation will probably last from 6 to 10 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

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 out 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. 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 1.5-2 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.

Surgical Intensive Care Unit (SICU) Patient Care Area 2200

Immediately following your transplant surgery, you will be brought from the operating room to the Surgical Intensive Care Unit (SICU) where you will usually stay for 24-48 hours. Once in the SICU, it will take approximately one hour for the nurses to do their initial assessments and orders and help get you 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 this part of the recovery. 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-10:00 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. However, the first priority is to remove the breathing tube as soon as possible.

You will have many IV lines and tubes, and you will be in a room with many monitors and machines. Your hands may be loosely tied with soft restraints until you are fully awake, in order to prevent you from pulling out any of your tubes. 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 in 1-2 days.

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 your blood pressure.

Pumps by your bed will be supplying you with IV fluid. This fluid contains various medications to control your heart rate and blood pressure.

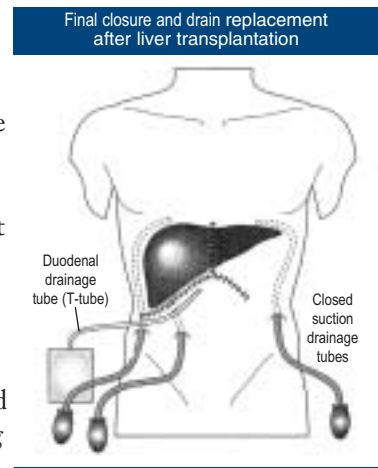
You will have several drainage tubes in your abdomen. These tubes, designed to drain fluid and air from the

space around the new liver, will be connected to suction bulbs for a few days to help remove fluid more efficiently. The tubes will be removed within the first week after your transplant. Most liver transplant recipients have a special rubber tube called a “T-tube” placed in their bile duct during their transplant. This

small tube allows bile to drain out of the new liver for several days. This helps your doctors monitor the function of your new organ. Several days after your transplant, a “T-tube cholangiogram” will be performed. This X-ray test involves injecting dye into your T-tube to check for leaks around the bile duct connection. If this test shows good healing of your duct, the T-tube will be clamped and your bile will drain into your intestine instead of outside your body (into a drainage bag). Keeping all of your bile helps you digest food better.

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 2-3 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.

Physical Therapy

While you are in the Surgical Intensive Care Unit 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 Patient Care Area 2300

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 and to see that your anti-rejection medicine is at the correct level.

Your physical activity will continue to be a priority. You will 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.

Your education about how to care for yourself when you go home will begin once you leave the ICU. The coordinator will speak with you and your family about monitoring for infection, 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 will 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.

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, how to check your temperature, and 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. Counseling is available with our social worker. We look forward to working closely with you.