

Living Liver Donor Program



Debbie (left), liver recipient (transplanted May 2019) pictured with her daughter and living donor, Marley



THE OHIO STATE UNIVERSITY
WEXNER MEDICAL CENTER

Living Liver Donor Program Introduction



Briana (left), liver donor, pictured with her uncle Mark, liver recipient (transplanted January 2020)



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What is Living Liver Donation?



Living liver donation occurs when a healthy person donates a portion of their liver to a transplant recipient with end-stage liver disease. During the transplant procedure, the recipient's diseased liver is removed and replaced with a portion of the healthy donor's liver. The recipient and donor surgeries are carried out at the same time in different operating rooms. Since a healthy person's liver can grow back, living liver donation is a generous decision some people are willing to make.

Why Choose to Be a Living Liver Donor?

Patients with end-stage liver disease have two options for treatment: a liver transplant from a deceased donor or a liver transplant from a living donor.

Unfortunately, the demand for organs for transplantation far exceeds the number available, and demand is steadily increasing. United Network for Organ Sharing (UNOS), the organization responsible for allocating deceased donor organs for transplant, reports there are more than 13,000 candidates in the United States waiting for a liver transplant. In 2021, only 9,236 liver transplants were performed with 569 transplanted from living donors.

For some patients needing a liver transplant, receiving a portion of a liver from a living donor is an ideal option. Patients who receive a living donor liver transplant could greatly reduce their wait time for transplantation and have more control over when the operation occurs for better outcomes. At any given time, about 150 patients are awaiting a liver transplant at Ohio State's Comprehensive Transplant Center — many whose lives could be changed by a living donor.

Mythbusters: The Facts About Living Liver Donation

MYTH: I'm too old to be a living liver donor.

FACT: Individuals considered for living donation are usually between 18-55 years of age for liver donation. Gender and race are not factors in determining a successful match. An individual should be in good overall physical and mental health and free from uncontrolled high blood pressure, diabetes, cancer, HIV/AIDS, hepatitis and organ disease.

MYTH: My religion does not permit organ donation.

FACT: All major religions practiced in the United States support organ and tissue donation and consider it a generous act of caring. Speak with your religious leader about donation.

MYTH: I can't afford to donate a part of my liver. It's too expensive.

FACT: The recipient's insurance generally pays the cost of the living donor's evaluation, testing and surgery; therefore, the donor should not incur any medical expenses. However, time away from work as well as travel expenses need to be considered. An Ohio law gives state employees time off from work for donating. Financial assistance for travel and lodging may be available to qualifying donors through the National Living Donor Assistance Center.

MYTH: I can't give part of my liver to a family member. I could develop the same genetic liver disease.

FACT: Many of the diseases that cause end-stage liver damage are not genetic, but because some may have a genetic component, living donors are thoroughly evaluated. This evaluation is designed to ensure good health and organ function prior to donation. If the evaluation shows a donor is at risk for developing a genetic disease, the donation will not proceed.

MYTH: If I donate a part of my liver, I won't be as healthy.

FACT: Your liver should regrow or regenerate to 85-90% of its normal size within two to nine months after donation. The regenerated liver tissue will work as your liver did before.

MYTH: I don't have the time to be in the hospital for weeks after donating.

FACT: Most liver donors are eating and drinking within a few days after surgery and able to go home within five to seven days after surgery. About two to three weeks after surgery, donors generally report feeling tired but ready to go about normal activities. For the first eight weeks, donors are restricted from lifting anything over 5 pounds. After that eight-week period, all normal life activities can be resumed.

Qualifications for Living Liver Donors

To qualify to be a living liver donor, you should be in very good overall physical and mental health.

Donors must be:

- In very good health with no chronic or serious medical conditions
- Between the ages of 18-55 years old
- Able to understand the risks and benefits and provide consent

Reasons you may not donate:

- Active infectious diseases such as hepatitis, HIV or tuberculosis
- Ongoing medical issues such as uncontrolled high blood pressure, diabetes and heart disease
- History of cancer
- Active drug abuse
- Obesity

Living donor candidates must take a blood test to determine blood type compatibility with the recipient. It's important to note that if a donor's blood type is not compatible with the recipient's, they will not be eligible to donate.

<u>DONORS WITH BLOOD TYPE</u>	<u>CAN DONATE TO PATIENTS WITH BLOOD TYPE</u>
A	A and AB
B	B and AB
AB	AB
O	A, B, AB and O

If the donor and recipient have compatible blood types, the donor undergoes a medical history review and a complete physical examination, in addition to tests to ensure compatibility. The donor and recipient will also have to complete a psychological evaluation.

The decision to become a living donor is a voluntary one, and the donor may change their mind at any time during the process. The donor's decision and reasons are kept confidential.

Education is the most important component in the decision to becoming a living liver donor. If you are considering becoming a living liver donor, you can speak with a donor nurse coordinator at the Ohio State Comprehensive Transplant Center by calling **614-293-6724, option 3** or emailing **livingdonor@osumc.edu**.

Evaluation Process – What to Expect

Ohio State's Pre-Transplant Office will schedule an evaluation appointment with you that will include medical testing, an education session, evaluation by a surgeon and a hepatologist (liver doctor), and an independent living donor advocate. Additional testing will also be scheduled.

Here's what you can expect during your evaluation process:

- You will need to provide a copy of your blood type or have blood drawn to confirm blood type (the Pre-Transplant Office will provide an order for the blood draw)
- Female donors will need to provide a copy of their last Pap test, breast exam and mammogram. Ask your donor coordinator for a "Release of Information" form to forward to your doctor offices. If your Pap test or mammogram is more than a year old, you should schedule appointments for new exams
- Chest X-ray and EKG (tests to determine heart and lung health)
- Radiology imaging to evaluate and map the liver
- A full day of education and evaluation at our transplant center where you will meet with your living donor coordinator, have a psychosocial evaluation, and undergo additional surgical and medical evaluations as needed
- A day or two of additional imaging studies may also be needed
- Final pre-donation evaluation studies (completed 10 to 14 days before surgery)
- Consultation with a social worker
- Evaluation by a clinical health psychologist



Marley, living donor (May 2019)

Frequently Asked Questions

Are living donor liver transplants common?

Living liver donors are common, particularly in Canada and Asia. At The Ohio State University Wexner Medical Center, we are among a few centers in the United States that accept living liver donors.

Do living donor transplants offer any advantages over deceased donor transplants?

Both living liver and deceased donor liver transplants have about the same first-year success rate of 92%. However, there are several benefits to having a living donor:

- Receiving an organ from a living donor keeps a patient from having a long wait for a deceased donor liver.
- Preservation time and organ transportation are not factors in living donation. Donor and patient operating rooms are adjacent to each other, and the transplanted liver is working in the recipient soon after it's removed from the donor and implanted.
- Living donation surgeries can be scheduled in advance, which allows procedures to be performed under the best circumstances for the patient and donor.
- The entire health history of a living donor is known and verifiable.

Who can donate?

To be a donor, you must be in good general health. You must be free from diabetes, cancer, HIV/AIDS, hepatitis, kidney disease and heart disease. Gender and race don't matter. Individuals considered for living donation are typically between the ages of 18 and 55. A matching blood type is a requirement for living liver donation.

Will liver donation cause health problems for a living donor?

All donors must go through a series of tests before being accepted as a donor. These tests must be reviewed and approved by the transplant team. Only healthy people are accepted as donors. After donation, you will be able to return to a normal lifestyle. Life expectancy doesn't change after donation. A donor's liver will regenerate and be able to meet the body's needs very well. There are always possible risks with any surgery, however, these are reduced by the extensive evaluation performed on all donors.

How do I get started?

The first step in the donor process is to contact Ohio State's Pre-Transplant Office at **614-293-6724, option 3**, or email livingdonor@osumc.edu. You will be provided with a packet of information to begin the process of living donation; or visit Ohio State's Living Donation web page at wexnermedical.osu.edu/liverdonor to complete a donor assessment form.

Resource Websites

THE ORGAN PROCUREMENT AND TRANSPLANTATION NETWORK

optn.transplant.hrsa.gov

Information and data on living donation

LIVING DONORS ONLINE

livingdonorsonline.org

Read or post messages and chat with other living donors

DONATE LIFE AMERICA

donatelife.net

National coalition on organ donation and living donor information

UNOS TRANSPLANT LIVING

transplantliving.org

Information on live organ donation and transplant information for patients

LIFELINE OF OHIO

lifelineofohio.org

Information about transplantation and living donation from the local agency

TRANSPLANT EXPERIENCE

transplantlife.com

Information about transplant

TRIO

trioweb.org

Support, education and awareness for those involved with organ transplantation

SCIENTIFIC REGISTRY OF TRANSPLANT RECIPIENTS

srtr.org

Data on living donation at specific transplant centers

UNITED NETWORK FOR ORGAN SHARING

unos.org

Resources for living organ donors

U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES

organdonor.gov

Information and resources on donation and transplantation

What testing will I have to complete?

If you decide to become a donor, the next step will be to confirm your blood type. Once received, we will proceed with any other preliminary tests that need to be completed prior to scheduling your full evaluation.

Your evaluation will include laboratory tests, chest X-ray, EKG, radiology/imaging of the liver and any other testing deemed necessary by our transplant team. Once your evaluation has been reviewed, you'll be scheduled for further tests of your liver. If all testing is found to be acceptable, the transplant surgery will then be scheduled.

Are there medications I should be careful about using after donating part of my liver?

You should always check with your doctor before taking medication, including over-the-counter medicine like Tylenol (acetaminophen).

Who pays my medical bills?

Your evaluation and surgery are paid for by the recipient's medical insurance. However, some things to consider that aren't covered are travel and lodging expenses (if any) and lost wages from work if you do not have ill or vacation time. Some donors may qualify for assistance with travel and lodging. The usual recovery time for a donor is eight weeks.

How long will I be in the hospital?

Generally, donors are in the hospital for five to seven days. Recipients are usually in the hospital for seven to 10 days.

Where can I obtain more information about living donor transplantation?

Call Ohio State's Pre-Transplant Office at **614-293-6724, option 3**, or email livingdonor@osumc.edu. Visit Ohio State's living donor web page at wexnermedical.osu.edu/liverdonor.

Living Liver Donor Program Donor Evaluation



Mac (left), liver recipient (transplanted October 2021) pictured with his sister and living donor, Tessa



Patient Name: _____

Date: _____

Living Donor Nurse Coordinator: _____

Social Worker: _____

Living Donor Advocate: _____

Hepatologist: _____

Surgeon: _____

Donor Evaluation (check off as completed):

- Blood draw
- EKG
- Overview with living donor nurse coordinator
- Consult with an independent living donor advocate
- Psychologist interview (schedule if needed)
- Social worker interview
- Consultation with hepatologist (liver doctor)
- Consultation with transplant surgeon
- Pap smear and breast exam (all female donors to schedule)
- Mammogram (all females age 40 or older)
- Liver/abdominal imaging
- Colonoscopy (age 50 or older)

Additional items requested by transplant team:

The Ohio State University Wexner Medical Center
Comprehensive Transplant Center
300 W. 10th Ave., 11th Floor
Columbus, OH 43210
Phone: 614-293-6724, option 3
Fax: 614-293-6710
Email: livingdonor@osumc.edu

wexnermedical.osu.edu/transplant

The Evaluation Process

Becoming a living liver donor is a voluntary, personal decision. For some it's an easy choice to provide a better life for a loved one, but for others it requires more careful consideration. However you arrived at your decision to be evaluated, you may change your mind at any time during the process. Your reasons are kept confidential and your recipient will only be told that you aren't an appropriate candidate.

Education and donor screenings are two very important components in the living donation process. Living liver donors are advised on surgical, medical, financial and emotional risks. They're also thoroughly evaluated to ensure good health and organ function prior to donation.

Initial Evaluation

Your evaluation appointment will include medical testing, an education session, evaluation by a surgeon and a hepatologist (liver doctor), and a conversation with a living donor nurse coordinator, a social worker and an independent living donor advocate. You'll also complete a psychological evaluation with a Comprehensive Transplant Center clinical psychologist. Additional testing may also be scheduled. If your evaluation shows that donation is too risky for you, your donation will not proceed.

Your guide throughout the entire evaluation process will be your living donor nurse coordinator. You can approach your nurse coordinator with any questions or concerns at any time. Here's what you can expect during your evaluation process:

- Blood draw, tissue compatibility and general health evaluation
- Education session with a living donor nurse coordinator
- Evaluation by a transplant surgeon and hepatologist (liver doctor)
- Consult with a social worker, independent living donor advocate and clinical health psychologist
- Chest X-ray and EKG (tests to determine heart and lung health)
- Radiology/imaging of the liver and lungs
- Any additional testing as needed

Additional Testing

After your clinic evaluation day, further testing will be arranged by the Pre-Transplant Office, including:

- Female donors will need to provide a copy of their last Pap smear test result, breast exam and mammogram reports. A Release of Information form is included in this packet (if you haven't already completed one). Please sign the form and forward it to your doctor's office. If your Pap smear test or mammogram is more than a year old, schedule an appointment for new exams.
- Donors over 50 will need to provide a copy of a current colonoscopy.
- Final pre-donation evaluation at the transplant center (completed 10 to 14 days before surgery).

The Assessment Process

Phase 1: Screening Questionnaire

- Health history
- Blood type compatibility (must be blood type compatible to proceed to phase 2)
- Preliminary lab tests to confirm normal liver function

Phase 2: Initial Visit

- First appointment with a donor team doctor and donor coordinator
- Education session with donor nurse coordinator
- Serology (test for infections)
- ECG (test for the electrical activity of the heart)
- Consult with independent living donor advocate
- Social work
- Evaluation by clinical health psychologist
- Surgical risk consultation (review of surgical procedure and risks, consent for donation surgery)
- Lab tests to confirm good health and free of infectious diseases

Phase 3: Initial Diagnostic Tests

- MRI (visualize bile ducts)
- CT (visualize vascular anatomy and size of liver and chest)
- Echo (if over age 50, if ECG is abnormal or if pre-existing cardiac history)*
- Exercise stress test (if over age 50, if ECG is abnormal or if pre-existing cardiac history)*
- Fibroscan (elastography) to assess for fatty deposits in liver

Phase 4: Initial Consultations

- Psychiatry assessment
- Meet with surgeon for discussion and to sign surgical consent

Phase 5: Preparation for Surgery

- Schedule surgery date
- Preoperative education with donor coordinator
- Preadmission consultation (anesthesia and preparation for admission for surgery)

Living Donor Support

If you decide to become a living donor, you'll need a support person for assistance after donation surgery. It's important to understand that living liver donation is a major surgery. You may experience some complications or discomfort after donation and will need the assistance of others while you recover at home.

Some important things to consider include:

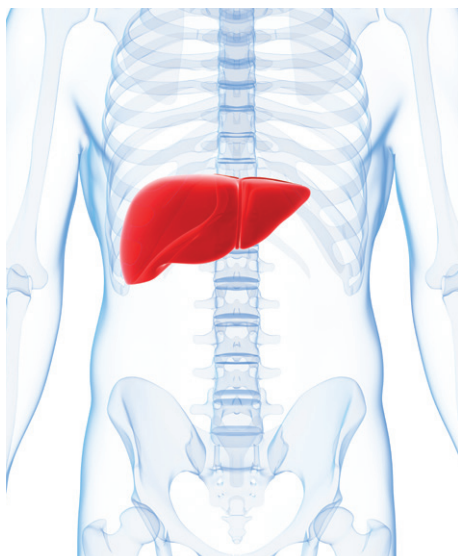
- How to pay for additional costs related to donation surgery, like gas, parking and hotels
- Availability of a support person to help you with daily activities after surgery
- Discussion with your work supervisor or human resources department about time off from work for donation surgery and whether it will be a paid leave of absence
- If you have a living will and/or health care power of attorney
- Care for your home, family and pets while you're in the hospital
- Need for travel arrangements for you or caregivers including hotel and transportation
- How to stay in contact with friends, family and/or faith community while you're recovering

Please address any medical questions you have regarding your recovery to your living donor nurse coordinator at **614-293-6724, option 3**. Also, if you are interested in obtaining information about joining a transplant support group, you can contact your transplant social worker at the same number.



Sue, liver recipient (transplanted February 1991)

Medical/Surgical Risks and Potential Complications



It is vital that people considering living liver donation have a good understanding of the nature of this surgery, the benefits, the risks and the alternatives. Liver donation surgery is associated with significant risks, no matter how carefully the donor surgery is performed. Your transplant surgeon will detail these surgery risks, as well as explain various precautions to prevent complications. Donors are tested and re-tested prior to surgery to ensure overall good health for the best possible outcomes after surgery. Surgical risks can also be minimized by the precautions taken in health screenings prior to surgery, the expertise of your surgical team and by following the care instructions of your transplant team. Some of the risks of living donation are outlined below.

Liver donation is a challenging surgery. Donor deaths and/or severe complications can occur even when the very best care is provided. **The risk of death is estimated to be 0.1%, or one death per 1,000 surgeries.**

The surgery is performed through a large upper abdominal incision that results in mild, permanent weakness in the abdominal wall and a small patch of numbness beneath the incision just above the umbilicus (navel).

About 30% of liver donors will experience a complication. Most of these complications are mild and temporary; however, some can be very serious and life-threatening. Some but not all of the risks of liver donation surgery include:

- An adverse reaction to anesthesia
- A decision to stop the donor surgery based on intra-operative findings (about 4% of cases)
- Stroke
- Heart attack
- Bleeding (hemorrhage)
- Blood clots (pulmonary embolism) in the legs or lung
- Hernia
- Fluid around the lung (pleural effusion)
- Fluid retention (edema)
- Mild or severe infections
- Infection or other adverse effects of a blood transfusion (required in about 5% of cases)
- Re-operation (about 5% of cases, usually due to bleeding)
- Bile leakage
- Bile duct damage requiring repair
- Injury to adjacent organs such as the spleen, stomach or intestine
- Bowel obstruction
- An injury to the remaining liver segment's blood vessels, resulting in liver failure
- Retractor injuries causing temporary or permanent nerve damage
- Persistent incisional pain

Several donors in the United States and Japan have required liver transplantation to treat liver failure that has developed after partial liver donation. If complications occur, they could impair the donor's ability to obtain health or life insurance as well as affect the donor's lifestyle and/or ability to maintain or obtain employment. Potential donors should consult an insurance agent and/or speak to their employer about the surgery itself, which, even without complications, might impact their insurability or job security. Staff from the donor program will provide any information that is required.

No matter how carefully the transplant is performed, there is the potential that the liver recipient will die during or after the transplant surgery. Potential donors should consider carefully how they might respond to the stress of dealing with the recipient's death. In the highly unlikely event that your liver segment has been removed and your intended recipient develops a complication that makes transplantation impossible (a so-called "orphan" graft), we will try to transplant your liver segment into another recipient. This problem has only happened a few times in the world, and it has never happened at Ohio State. Unforeseen problems may be identified as we continue to gain further experience with this operation.

Please contact your living donor nurse coordinator if you have any concerns about these potential surgical complications.

Financial Concerns

Most medical expenses related to donation are covered under the recipient's insurance. Medication that you may need following surgery (e.g., pain medication) will be given to you at the time of discharge from the hospital. If you receive a bill related to donation, please contact your living donor nurse coordinator immediately at **614-293-6724, option 3**, to discuss.

As a donor, it's important to consider your financial situation in making a commitment to this process prior to surgery. Please take time to consider how your recovery time will affect your home and work life. It's also important to think about how much paid or unpaid time off you will be able to use after surgery, including sick days, personal/vacation days, short-term disability (STD) and Family and Medical Leave Act (FMLA). Please address your questions to your work supervisor or human resources department.

There is no financial assistance available for lost wages. However, some donors may be eligible for financial assistance for donation expenses like transportation, parking and hotels through the National Living Donor Assistance Program. Contact your assigned social worker or living donor advocate about assistance at **614-293-6724, option 3**. State and federal employees may be eligible for paid organ donation leave; contact your human resources representative for more information.

Tax Incentives

The state of Ohio passed a tax incentive for organ donors that may benefit those with out-of-pocket costs. The information is discussed in the Ohio IT 1040 instructions manual. The tax incentive is up to \$10,000 of qualified organ donation expenses incurred during the taxable year. "Qualified organ donation expenses" means unreimbursed travel and lodging expenses that you incur in connection with your living liver donation. You can claim this deduction only once for all taxable years.

Expenses that can be claimed currently include gas, parking, hotels and out-of-pocket medical testing. Lost wages are not included. Evidence of the expenses (receipts, bills, etc.) should be kept, as the information will need to be itemized on your tax form.

Please contact the Ohio Department of Taxation with further questions at 800-282-1782. If you live in a state other than Ohio and file taxes there, please contact your local state tax department to discuss whether they offer any tax incentives based on organ donation.

National Living Donor Assistance Center

The National Living Donor Assistance Center (NLDAC) helps to provide greater access to donation for persons who want to donate but can't otherwise afford the travel and expenses associated with donation. National Living Donor Assistance Center also assists with lost wages and child care during hospitalization and recovery.

Who Can Apply?

Any individual considering becoming a living organ donor can apply for help with their travel expenses, lost wages and dependent care expenses from NLDAC if they cannot be reimbursed for these costs by their recipient, a state program or an insurance company. The donor and recipient must be U.S. citizens or lawfully admitted residents of the U.S. with permanent residences in the U.S. or its territories.

What Expenses Are Covered?

Travel Expenses

NLDAC helps people who are considering being a living organ donor with the non-medical expenses associated with the process, including: travel expenses, lost wages and dependent care expenses is provided for up to \$6,000 in reimbursement for hotel, travel and meal expenses related to the donor evaluation, donor surgery and donor follow-up. Approved applicants will receive a controlled value card (similar to a credit card) to pay for covered expenses for themselves and up to two accompanying people.

Lost Wages

Donors can request reimbursement of the wages they lose during hospitalization:

1. Evaluation trips, up to 3 days
2. Recovery from donation surgery, up to 4 weeks
3. Follow-up trips or rehospitalization, up to 2 weeks

Dependent Care Expenses

Donors who are approved for help with dependent care expenses can receive up to \$420 per week for child-care expenses and up to \$504 per week for adult-care expenses caused by their donation.

Who Can Qualify?

Preference is given to donors and recipients with income less than or equal to 300% of Health and Human Services (HHS) Poverty Guidelines. Documentation of recipient and donor income is required.

Applications may also be approved with an income greater than 300% of HHS Poverty Guidelines, if financial hardship can be demonstrated. Your transplant social worker or living donor advocate can help you determine if you're eligible and the appropriate preference category.

The donor would NOT qualify for this program if donor reimbursement is available from the recipient, a state compensation program, insurance policy or any federal health benefits program.

Where Do I Apply?

Speak to your transplant social worker or living donor nurse coordinator, who can file an application on your behalf with NLDAC. After your application is received, the approval period is six to eight weeks.

Contact your transplant social worker or living donor advocate at **614-293-6724, option 3**, for more information or contact NLDAC directly at:

National Living Donor Assistance Center
2461 S. Clark St., Suite 640
Arlington, VA 22202
703-414-1600
NLDAC@livingdonorassistance.org
livingdonorassistance.org



Mac, liver recipient (transplanted October 2021)

Living Liver Donor Program Donor Surgery



Mark, liver recipient (transplanted January 2020)



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Tips Before Living Donation Surgery

Day of Surgery Checklist

- Have your photo ID
- Have a copy of legal medical documents, such as your living will and health care power of attorney
- Pack a bag with loose-fitting clothes for when you go home
- Bring your medication list
- Bring a toothbrush, toothpaste, comb/brush and other personal grooming items
- Leave all valuables at home and remove jewelry and body piercings
- Nothing by mouth after midnight
- Take medication with a sip of water

Now that you have made the decision to become a living donor and been evaluated by our transplant team, continue with daily routines that will keep you in good health.

- Eat healthy meals and snacks while waiting for your donation surgery. A balanced diet will help you manage your weight and keep your body functioning to the best of its ability before surgery.
- Stay active and exercise at least five days a week. Exercise before surgery helps to speed up recovery after surgery.
- Keep your transplant team's phone numbers with you at all times. Don't hesitate to contact any member of the transplant team with questions or concerns you might have while waiting to donate your liver.
- To reduce the chance of getting sick while you are waiting to donate, we recommend you:
 - Don't share eating utensils and drinking glasses
 - Avoid people who are sick
 - Ask family and friends not to visit you when they are sick
 - Wash your hands with soap and water often or use an antibacterial cleaning gel and rub your hands together until they are dry
 - Avoid touching your eyes, nose and mouth where germs can easily enter the body

Please contact the transplant clinic with any significant health events such as **surgery (including dental surgery), any hospitalizations, broken bones, open sores or wounds, any condition that requires you to take antibiotics, heart attack, stroke or breathing problems.** The transplant doctors will not move forward with surgery until both you and your intended recipient are determined to be in good health.

Your Hospital Stay

All donation and transplant surgeries are done at the Ohio State Wexner Medical Center by our transplant team. If our transplant team clears you as a donor and your recipient has been identified, the surgery will be scheduled within several weeks.

Week Before Surgery

About 10 to 14 days before the surgery date, you and your recipient will have blood drawn for final testing, including communicable disease testing. You will also meet with your coordinator and surgeon to review and consent to the donor surgery.

Surgery Day – Day One in the Hospital

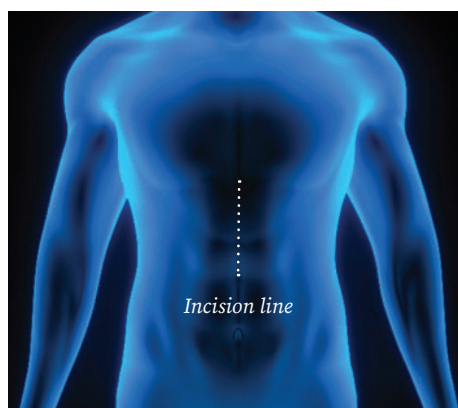
The day of your donation surgery you will be asked to check into the hospital, usually in the early morning.

When you arrive at the hospital, you will be admitted into the hospital and taken to the preoperation area. Once you are comfortable, the doctors and nurses will conduct a final examination. You can expect to have blood drawn and an IV placed in your arm. These final health checks help our transplant staff to know that you are in excellent health for donation. You will meet your surgeon prior to transfer to the operating room. This is also a good time for you to ask any last-minute questions and to openly talk about any concerns you may have before surgery.

For information about hospital visitation and the latest updates on the visitor policy, visit wexnermedical.osu.edu/guide.

The donation surgery usually takes four to six hours and is done under general anesthesia. About 55-70% of your liver will be removed for donation. Your remaining liver will enlarge enough to meet your body's needs and will grow back (regenerate) to 85-90% of its original size within two to nine months after surgery. Your gallbladder will also be removed during the surgery.

At the same time your surgeon is removing a portion of your liver, your recipient's surgeon will be removing their liver. Then, your removed liver portion will be surgically implanted into your recipient.



Incision for donation

After surgery you'll be taken to the surgical recovery room where you can expect to stay for one to two hours. When you wake up, you'll have a large incision, approximately 8 inches, on your abdomen. To help manage your pain, you'll receive pain medicine.

After your time in the recovery room, you'll be taken to the surgical intensive care unit to be monitored closely to ensure you're recovering well; have limited nausea; are able to eat, use the bathroom and pass gas; and are free from infection. Ask us for help when you want to get out of bed, as the surgery and medicines you're given can make you feel less than steady on your feet.

Day After Surgery – Day Two in the Hospital

The day after surgery, patients are generally taken back to a private room on the transplant unit where family and friends are welcome to visit. The day after surgery, we will encourage you to get out of bed and walk with support around the hospital unit. You'll also be asked to practice coughing and deep breathing to protect your lungs. The road to recovery should be relatively quick, and you'll be given pain medicine as needed to relieve any discomfort. For information about hospital visitation and the latest updates on the visitor policy, visit wexnermedical.osu.edu/guide.

Day Three in the Hospital Until Discharge

Most donors are able to go home five to seven days after surgery. You can expect to have some soreness and discomfort. However, you won't be able to leave the hospital until we're sure it's safe for you to continue your recovery in the comfort of your own home. In some cases, if you live more than two hours from the medical center, you may be required to stay in the Columbus area for up to two weeks after your surgery.

It's important to remember that living liver donation is a major surgery and you will need help while you recover at home. Please talk with your support person about your needs. If you have any questions, contact your living donor nurse coordinator at **614-293-6724, option 3**.

Home After Surgery

Every person reacts differently to surgery, and while some may be up and about the following week, it may take some a few additional weeks to return to normal routines. Expect to restart all normal activities within eight weeks after surgery. Please do not lift objects over 5 pounds for at least eight weeks after surgery to protect your health and prevent wound problems.

During your recovery at home, we encourage you to contact our transplant team if you have questions or concerns about your progress.

After donation surgery, your continued good health is our main concern. You are required to schedule and keep the follow-up appointments with Ohio State's Comprehensive Transplant Center.

Appointments after surgery will need to be scheduled for one week, three weeks, six weeks, three months, six months, one year and two years postsurgery.

After two years, we encourage you to visit your primary care physician for annual checkups and liver tests.

Emotional Concerns

Both before and after surgery you may have many emotions about organ donation. You may be excited about giving the gift of life, while at the same time be worried about the future. There are no absolute guarantees about the success of the surgery. You and your recipient may face surgical complications. The transplanted liver may not work right away in your recipient. There is also the chance it won't work at all. It's normal to feel sad, anxious, angry or resentful after surgery. Organ donation may change the relationship you have with the recipient.

While there is most often joy in the celebration of life after living donation, we want you to be prepared before surgery. Talk about your feelings, ask questions and share your concerns with your living donor nurse coordinator, social worker and living donor advocate. We want living donation to be a positive experience, and our health care team will work to prepare you for every step of the journey.



Tessa, liver donor (October 2021)

Living Liver Donor Program After Donation



Melvin, liver recipient (transplanted September 2018)



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WEXNER MEDICAL CENTER

Recovery After Living Donation Surgery

Every person reacts differently to surgery, and while some may be up and about the following week, it may take others a few additional weeks to return to normal. You should be able to resume most normal activities eight weeks after surgery. Remember that living donation is a major surgery, and you will need assistance at home until you have regained your strength.

Symptoms that require immediate medical attention:

- Fever greater than 100.4 degrees Fahrenheit
- Yellow eyes or skin (jaundice)
- Shortness of breath
- Uncontrolled pain
- Severe itching of skin

The living donor liver team is available to discuss any issues or concerns that you have. Please don't hesitate to call the office at **614-293-6724, option 3**. After hours, please call 614-204-9161.

Does My Incision Need Special Care?

You will have pain in the area of your incision. This will gradually go away, but you may feel some pulling, cramping or tightness in the area for several weeks after surgery. Your transplant team will help you to manage pain during the healing process, and you can expect to be fully healed in about eight weeks. During this time, follow the advice of your transplant team and avoid swimming and tub baths to prevent infection of the incision and lifting anything heavier than 5 pounds. Follow your after-surgery care instructions from your transplant team.

Do I Need a Special Diet?

After living donation surgery, you should eat a healthy diet low in sodium and rich in fruits and vegetables, and avoid too much fat. You should also drink extra fluids to prevent dehydration. This will help your body recover faster from surgery. Continue to abstain from alcohol for six months after surgery.

When Can I Drive?

You can usually drive about six weeks after surgery. It may take longer if you are taking pain medicine or if you are unable to make quick movements while driving. Talk with your transplant team about when it's safe for you to resume driving.

When Can I Go Back to Work?

You can return to work about eight weeks after surgery, if your work doesn't require heavy lifting or strenuous activity, in which case, return to work may be delayed for up to 12 weeks.

Medications

For some patients, Lovenox® or other blood thinning medicine may be injected daily to prevent blood clots. If you're prescribed a blood thinner, it's essential for your safety that you complete the full course of this treatment.

Percocet® can be taken as prescribed for relief of incisional pain. If this does not control your pain, please contact the living donor office for further instructions. **Please do not exceed recommended dosing. If pain persists, please contact the living donor office.**

Follow-Up Tests and Appointments

After donation surgery, your continued good health is our main priority. You're required to schedule and keep your follow-up visits with Ohio State's Comprehensive Transplant Center.

Appointments after surgery will need to be scheduled for:

One week

You will see your surgeon and have blood work.

Three weeks

You will see your surgeon and have blood work.

Six weeks

You will see your surgeon and have blood work.

Three months

You will see a living donor physician, have blood work and have an MRI to ensure liver regeneration and rule out any postoperative complications.

Six months

You will see a living donor physician, have blood work and have an MRI to ensure liver regeneration and rule out any postoperative complications.

One year

You will see a living donor physician and have blood work.

Two years

You will see a living donor physician and have blood work.

After your two-year surgery checkup, we recommend you have yearly physical exams. Your primary care physician will perform liver function tests (ALT, AST, ALP and bilirubin levels) annually. Additional appointments and tests may be scheduled as required.

Thank You!

We thank you for considering this decision to donate the *gift of life*.

Donating an organ is a life-changing experience and a heroic act. The need for organs is great, and there is still a critical shortage of organs available in the United States. Our best advocates are people like you who understand the importance of organ donation and the life-changing impact it can make. We encourage you to talk to friends, family and local organizations so others may consider giving their own *gift of life*.

To support organ and tissue transplant and donation, contact your local agency. In central Ohio, you can contact Lifeline of Ohio at lifelineofohio.org or 800-525-5667 to learn more about becoming an organ donor ambassador.

For additional information about living liver donation, visit our Liver Transplant Education Hub at wexnermedical.osu.edu/LiverEducation.

Living Liver Donor Program

Ohio State Comprehensive Transplant Center
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Columbus, OH 43210

614-293-6724, option 3
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wexnermedical.osu.edu/liverdonor



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