

Understanding the Liver Transplant Journey: Before and After

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Disclosures

No financial conflicts of interest or other disclosures

Objectives:

- Provide an overview of liver transplantation and eligibility criteria
- Explain the transplant evaluation and surgical process
- Identify common complications and post-transplant care needs

University Of Colorado Hospital Liver Transplant Program

- **May 5, 1963** – First successful liver transplant performed by **Dr. Thomas Starzl** – *Oldest liver transplant center in the world*
- **August 27, 1997** – First right lobe living donor liver transplant in the U.S., performed by **Dr. Igal Kam** and **Dr. Michael Wachs**
- **Largest liver transplant center in the region**

Complications of End-Stage Liver Disease

Decompensated Cirrhosis

- Jaundice
- Ascites
- Varices
- Edema legs/ankles
- Encephalopathy
- Sarcopenia

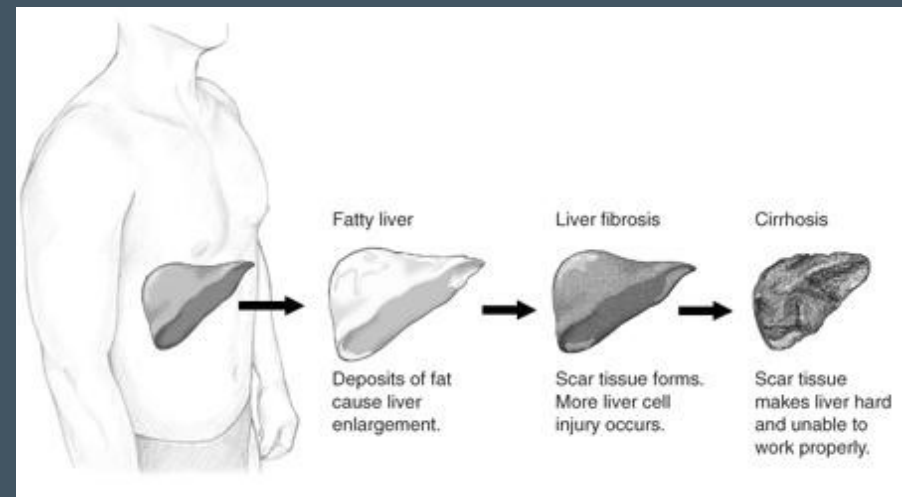


Where the Journey Begins: Liver Disease Origins

- Alcohol Use Disorder
- Autoimmune hepatitis
- Primary sclerosing cholangitis
- Primary biliary cholangitis
- Hepatocellular carcinoma
- Metabolic Dysfunction-Associated Steatohepatitis
- Hepatitis B
- Hepatitis C
- Cryptogenic cirrhosis
- Cholangiocarcinoma

Introduction to Liver Transplantation

- Referral records received
- Reviewed by coordinators
- Scheduled over two days with testing and appointments.
- Receive education regarding transplant process
- Presented to selection committee.
- If approved financial authorization is needed for listing.



Transplant Evaluation Process

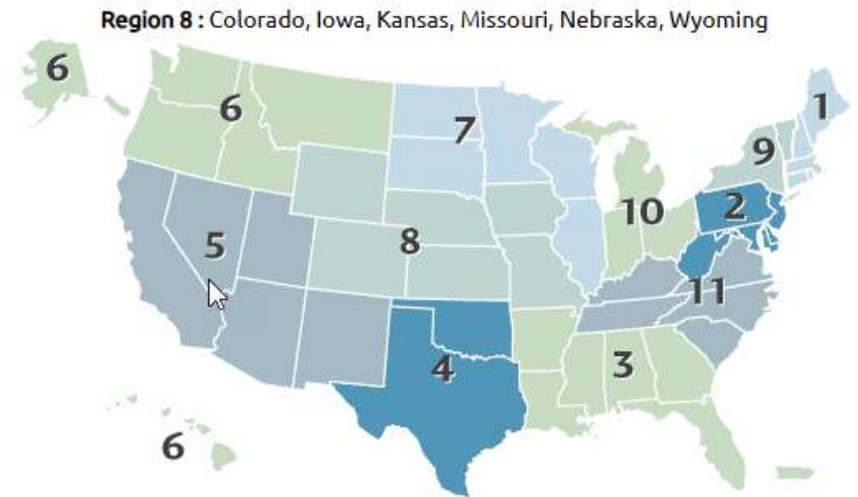
- Multidisciplinary team involvement
- Required testing: labs, imaging, cardiac/pulmonary evaluations
- Education for patients and caregivers
- Two day process
- Presented at Selection committee
- Financial approval

Transplant Team

- Liver Transplant Surgeon
- Hepatologist
- Liver Transplant Coordinator (RN) Pre and Post
- Social Worker
- Transplant Psychologist
- Dietician
- Transplant Financial Coordinator
- Substance Use Navigator
- Anesthesia

Listing and Waiting for Transplant

- United Network for Organ Sharing (UNOS) and the national waitlist
- Monitoring while on the list
- Organ allocation (based on urgency, blood type, size, location)



Blood Group Totals Report

Organ: Liver

Center: COUC-TX1 - 060024 - University of Colorado Hospital/HSC

Status	A	A1	A1B	A2	A2B	AB	B	O	Total
M/P	24	0	0	0	0	0	4	54	82
Stat1A	0	0	0	0	0	0	0	0	0
Stat1B	0	0	0	0	0	0	0	0	0
Stat7	20	0	0	0	0	0	5	18	43
Totals	44	0	0	0	0	0	9	72	125

Source: UNET Waitlist Blood Group Totals Report 7/18/2025

Transplant Waitlist Status

- Status 1A
- Status 1B
- MELD
- PELD

MELD Renewal Schedule

<u>Score</u>	<u>UNOS Must have New Labs</u>
25 or higher	Every 7 days
24-19	Every 30 days
18-11	Every 90 days
10 or less	At least once a year

MELD Score Calculation

- Creatinine
- Bilirubin
- INR
- Sodium
- Albumin
- Sex - Females will get an extra 1.33

Listing and Waiting for Transplant

Demographic Characteristic	New Waiting List Registrations 01/01/2024 to 12/31/2024 (%)			All Waiting List Registrations on 12/31/2024 (%)		
	This Center (N=177)	OPTN Region (N=909)	U.S. (N=15,399)	This Center (N=99)	OPTN Region (N=578)	U.S. (N=9,551)
All (%)	100.0	100.0	100.0	100.0	100.0	100.0
Ethnicity/Race (%)*						
White	52.0	71.4	64.3	50.5	75.3	62.8
African-American	5.1	4.8	6.8	3.0	3.1	7.1
Hispanic/Latino	27.7	11.6	19.7	26.3	10.6	21.7
Asian	2.8	1.9	4.1	2.0	1.7	5.1
Other	11.3	5.3	2.2	17.2	5.2	1.9
Unknown	1.1	5.1	3.0	1.0	4.2	1.5
Age (%)						
<2 years	0.0	2.8	2.0	0.0	0.9	1.5
2-11 years	0.0	3.5	1.6	0.0	2.2	1.5
12-17 years	0.0	2.0	1.3	0.0	0.7	1.4
18-34 years	13.0	9.1	7.1	6.1	7.1	6.8
35-49 years	35.0	24.5	23.6	37.4	23.9	21.1
50-64 years	39.0	38.1	43.2	42.4	42.9	46.7
65-69 years	13.0	15.2	15.3	14.1	18.0	15.8
70+ years	0.0	4.8	5.9	0.0	4.3	5.2
Gender (%)						
Male	52.0	57.0	58.0	48.5	56.7	58.6
Female	48.0	43.0	42.0	51.5	43.3	41.4

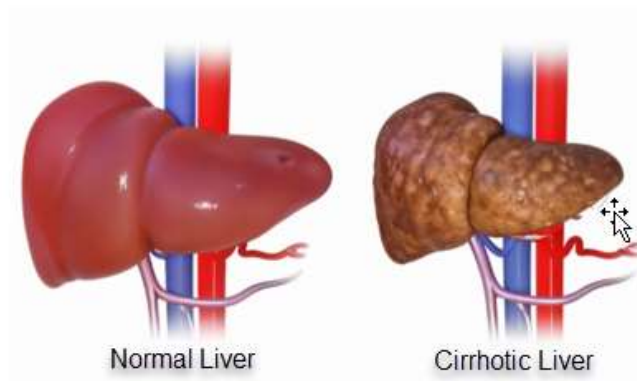
* Race and ethnicity are reported together as a single data element, reflecting their data collection (either race or ethnicity is required, but not both). Patients formerly coded as white and Hispanic are coded as Hispanic. Race and ethnicity sum to 100%.

Data from SRTR July 2025 Program-Specific Report, retrieved from www.srtr.org.

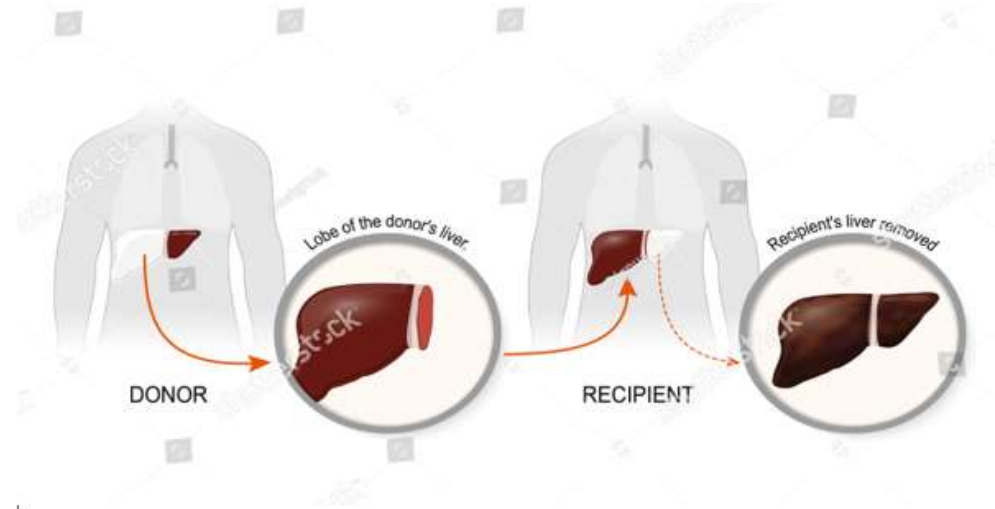
Types of Liver Donation

Deceased donor transplant

- Deceased brain death
- Deceased cardiac death

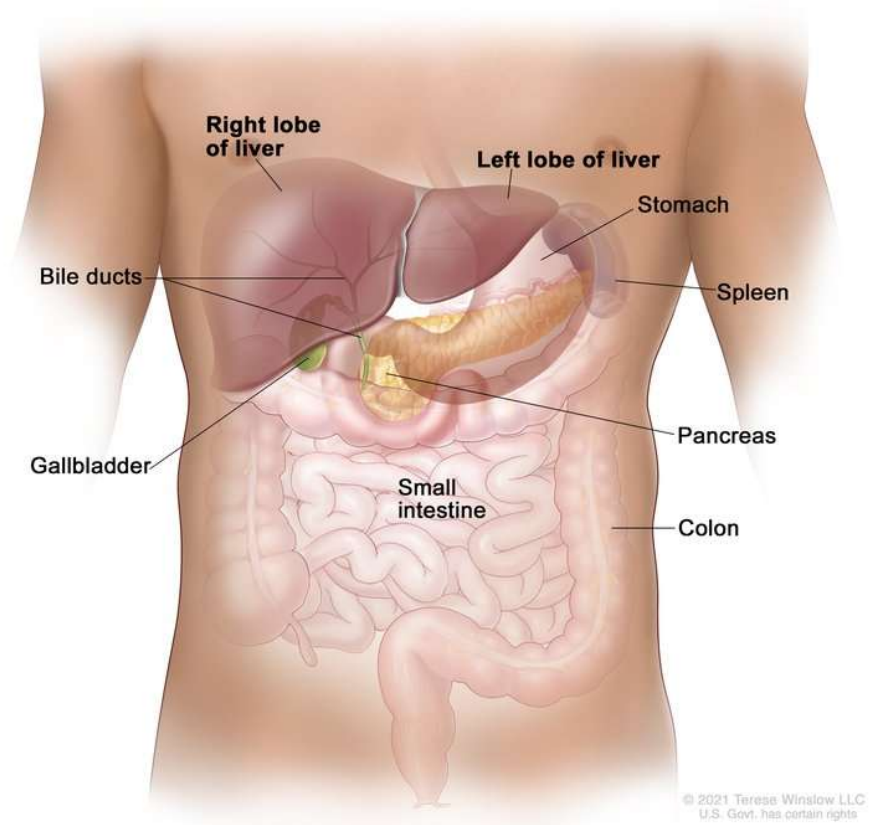


Living donor transplant (donation of a liver segment)



The Transplant Surgery

- Average OR time is 4-8 hours
- Less than half of patients go to SICU
- Average stay is 7-10 days
- Daily multi-disciplinary rounds



Post-Transplant – Care for Patients is Lifelong

- Follow over 1800 post liver transplant patients
- Trading one disease process for another
- Patients are seen very frequently at first and then decrease to once a month labs.
- Patients have labs checked once a month until 3 years post transplant, then every other month.



Post Transplant Concerns

- Rejection
- Infections
- Recurrent disease
- Malignancy
- Recidivism



Survival Rates For Liver Transplantation

Adult 1 Month survival rate:

UCH 98.74% National/US 98.41%

Adult 1 Year survival rate:

UCH 94.0% National/US 94.34%

Adult 3 Year Survival Rate:

UCH 89.71% National/US 88.16%



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Resources for More Information

- UNOS (United Network for Organ Sharing) www.unos.org
- American Transplant Foundation www.americantransplantfoundation.org
- American Liver Foundation www.liverfoundation.org
- University of Colorado Hospital UCHealth Liver Transplant
<https://www.uchealth.org/services/transplant-services/liver-transplants/>

Q&A Slide

Questions and discussion



Thank You

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