

Living Donor Liver Transplant:

Preparing Donor and Recipient



**University
Health**

Thinking beyond

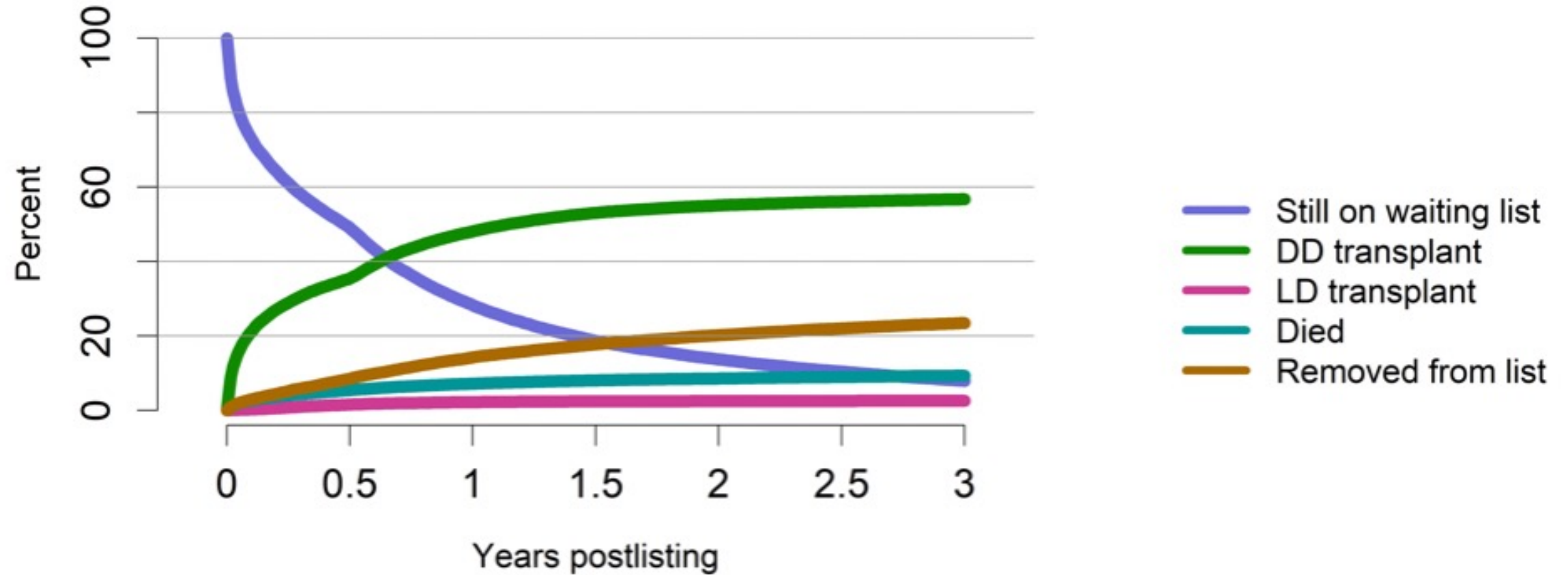
Danielle Fritze, MD
September 9, 2023

Meet William Rogers:

- 56 year old man
- Cirrhosis related to NASH and α 1anti-trypsin deficiency
 - Ascites with weekly paracentesis
 - MELD 18
- Mother died of cirrhosis

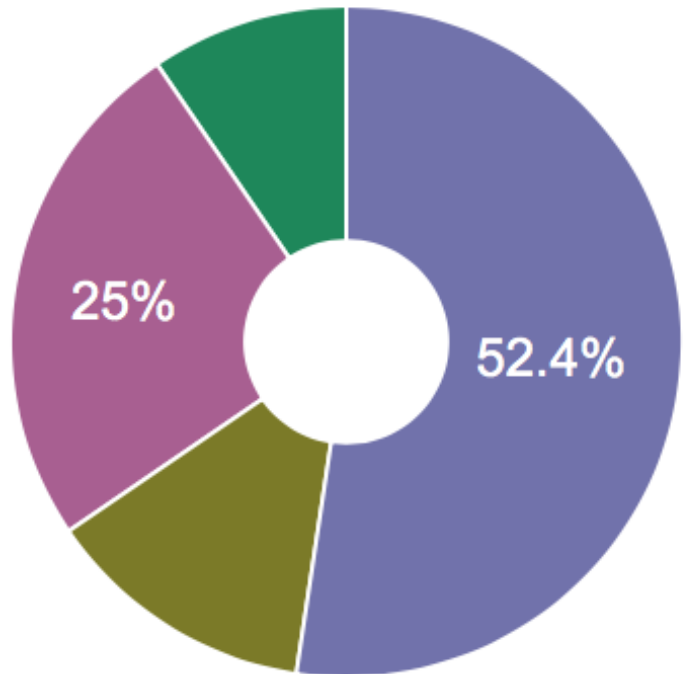


Waitlist Outcomes: United States



Predicted 365d Waitlist Outcome: Mr. Rogers

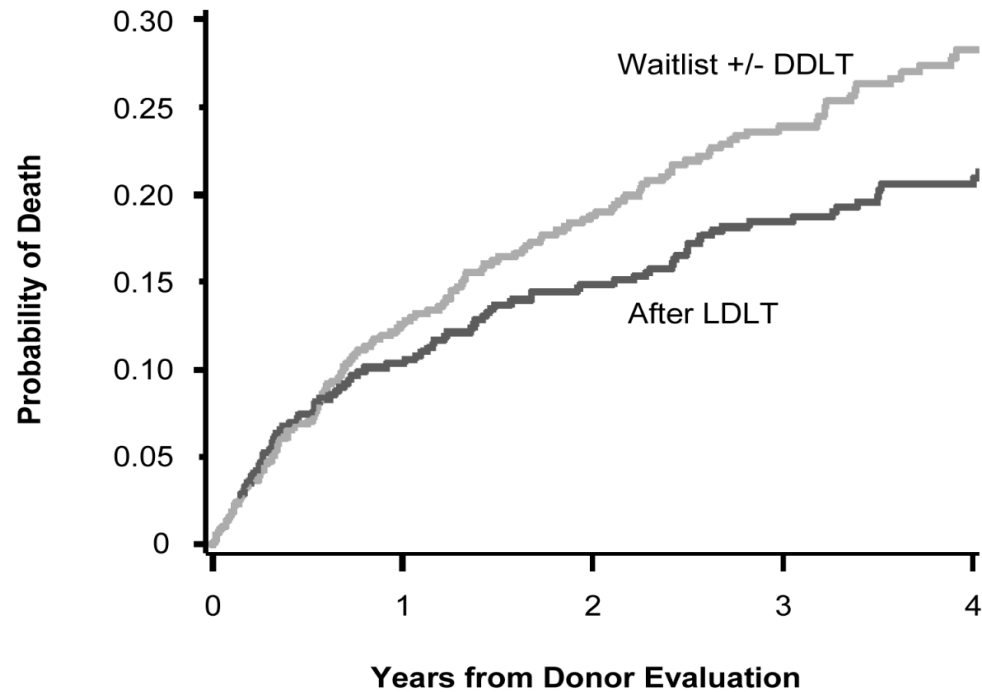
56yo MELD 18 Texas



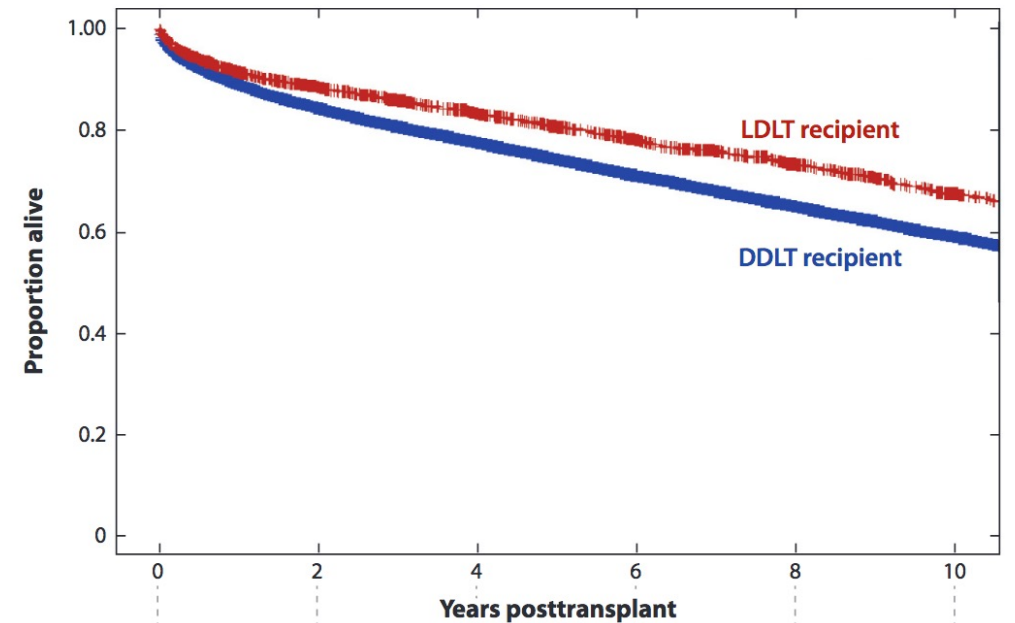
- Still Waiting
- Deceased Donor Transplant
- Died or Too Sick for Transplant
- Removed: Other

LDLT Outcomes

SURVIVAL: LDLT vs Waitlist +/- DDLT



SURVIVAL: LDLT vs DDLT



DDLT	80,315	51,599	37,916	27,184	18,342	11,504
LDLT	3,781	2,493	1,879	1,433	1,045	728

LDLT Recipient Candidate?

- 56yo MELD 18 a1anti-trypsin, very symptomatic
- 70yo MELD 9 NASH + HCC
- 45yo MELD 30 EtOH in ICU
- 14mo MELD 40 with fulminant hepatic failure on CRRT

- Individual assessment of risk:benefit
 - MELD: high, mid, low + symptoms
 - Age: 6mo – 70y+
 - Re-transplant
 - HCC
 - High acuity
- Contra-indications
 - Anatomic/vascular
 - Extremely sick (relative)

LDLT Recipient Evaluation



PEDIATRIC PRE-LIVER INITIAL: FULL TRANSPLANT

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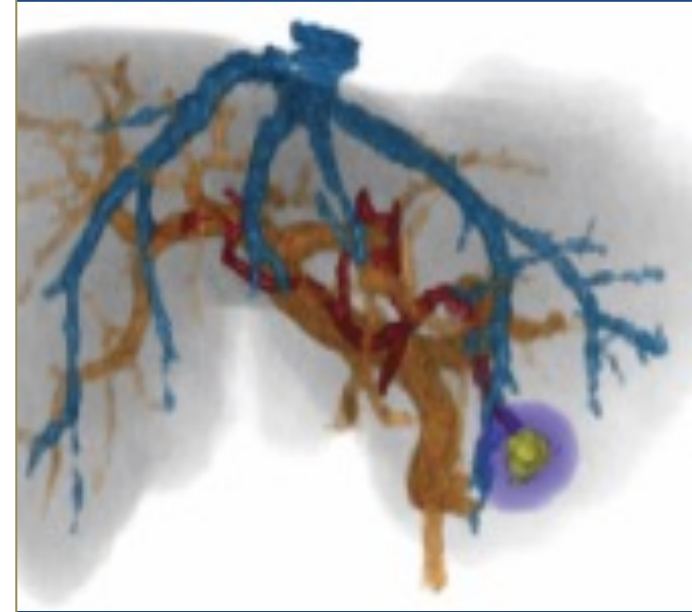
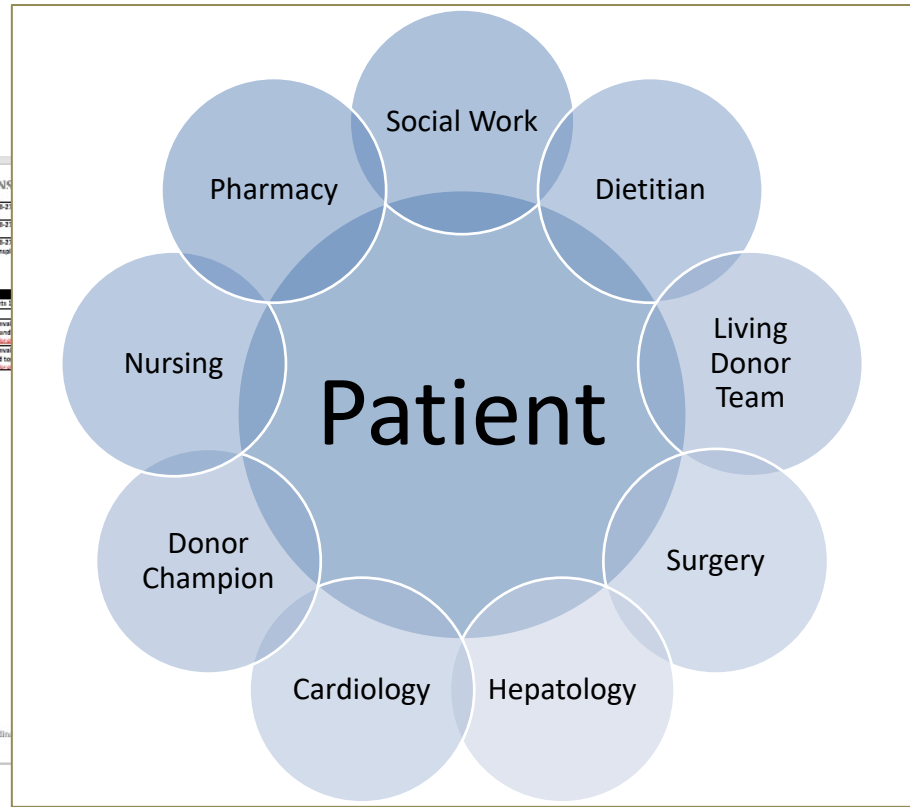
PEDIATRIC PRE-LIVER INITIAL: FULL TRANSPLANT

Form Updated 4/4/19 LAG

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Champion for Life Program

To increase patients' chances of finding a living donor by showing family and friends how to share their loved one's story.



Resources Available to Living Donor Champions

- Virtual Training Sessions
- [Peer-to-Peer Support through Facebook Closed Group](#)
- Marketing Guidance and Support
- Education Materials and Templates
- Virtual Monthly Workshops
- Campaign Starter Kit

ChampionForLife@uhtx.com

Slide courtesy of Shanna Puente

LDLT Donor Candidates

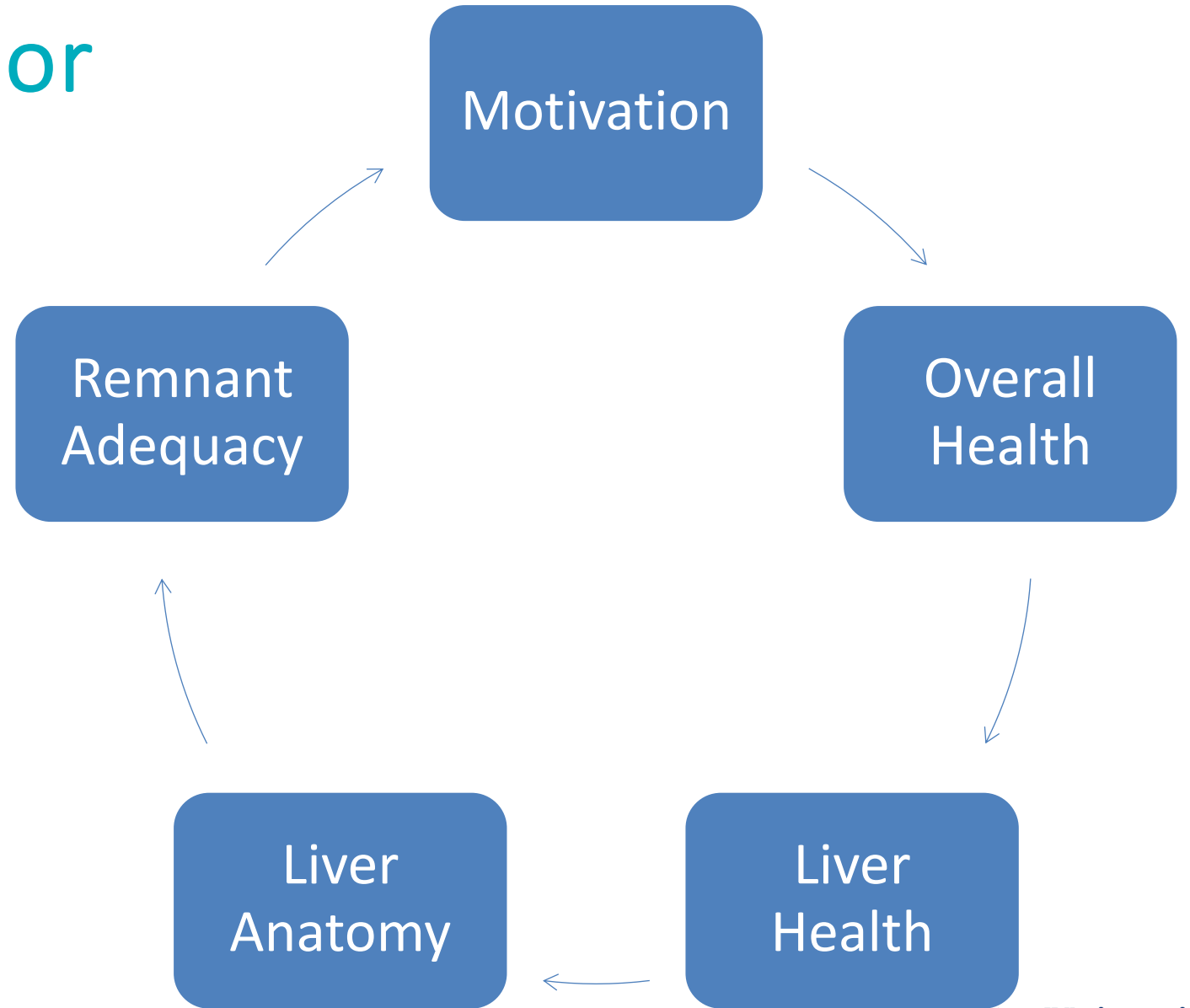
GENERAL CRITERIA

- Age 18-60
- BMI*
- Generally healthy
- Stable psychosocial situation
- Accepting of risks:
 - 0.1-0.4% mortality
 - ~30% complications (>95% minor)

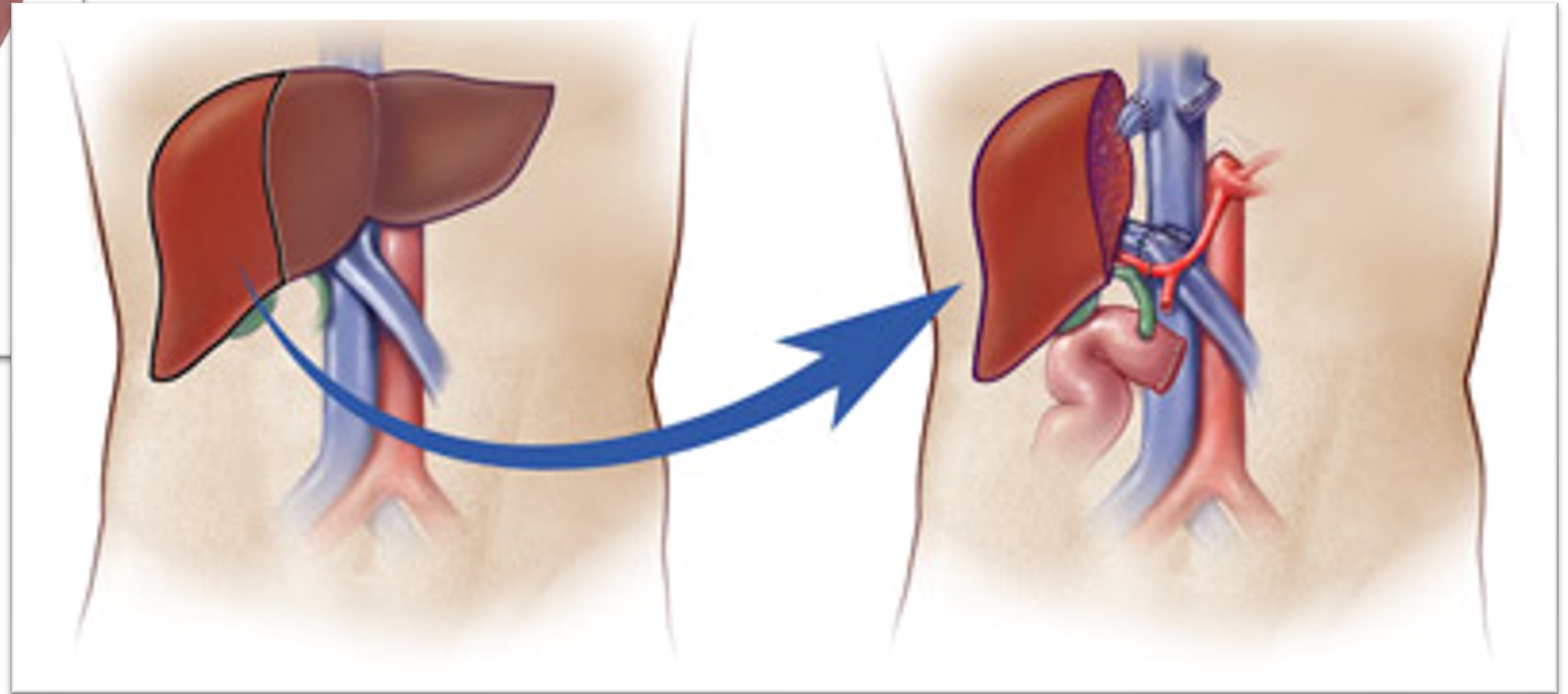
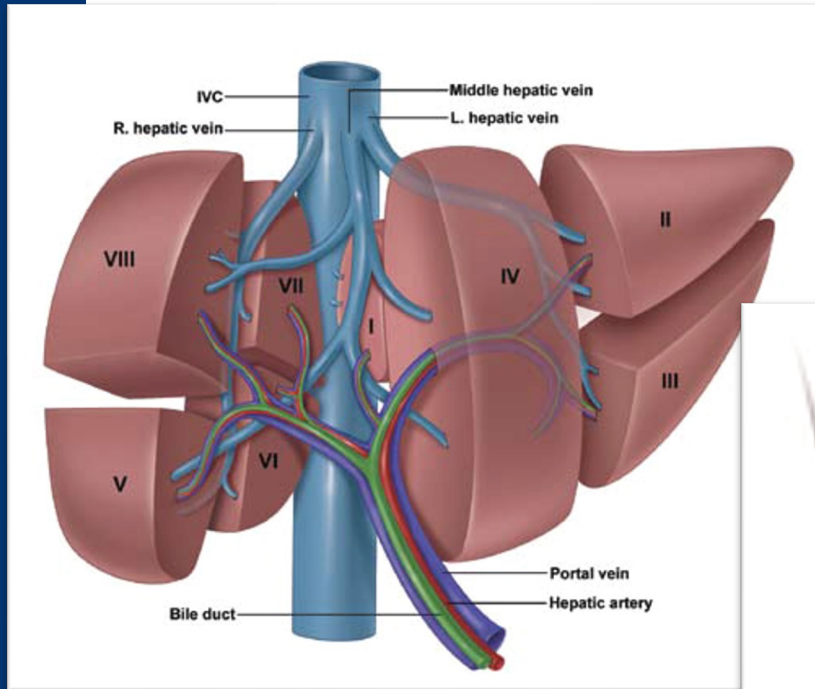
EVALUATION AND EDUCATION

- Hepatology
- Transplant Surgery
- Independent living donor advocate
- Social Work
- Labs
- Imaging
 - CT: vascular anatomy and volumes
 - MR: biliary anatomy and steatosis

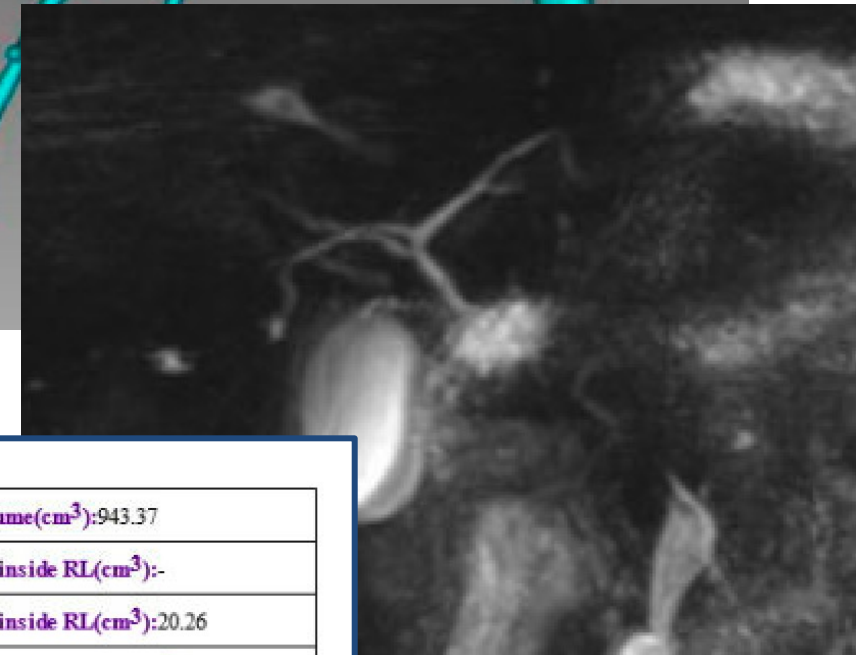
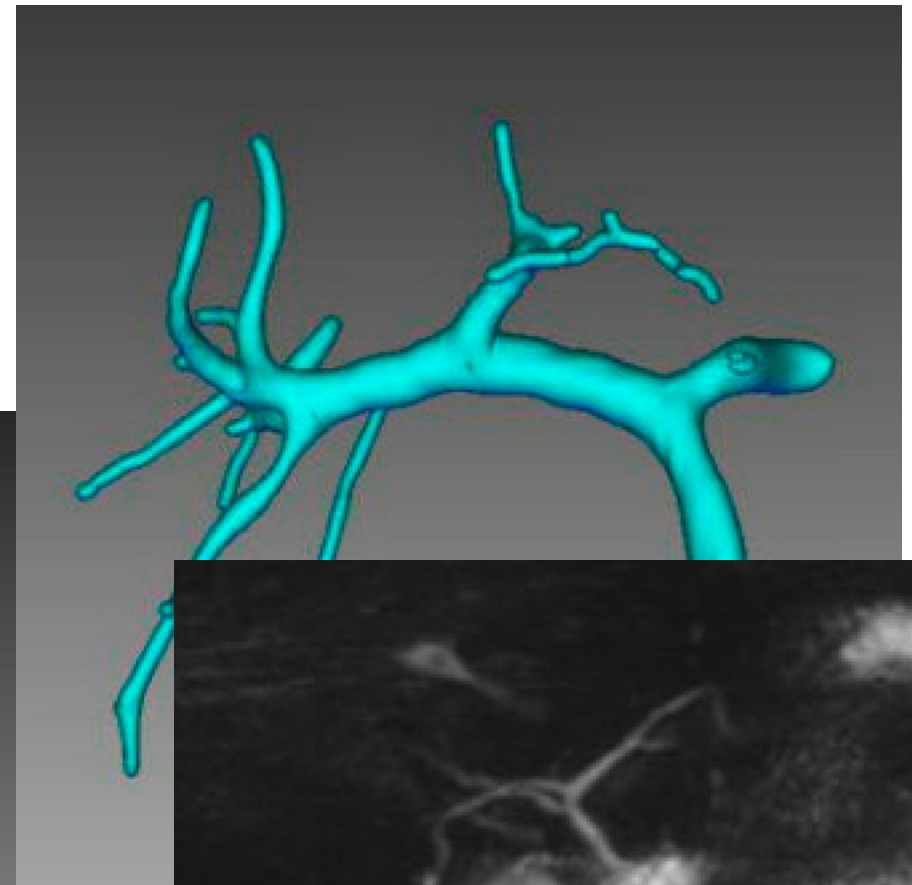
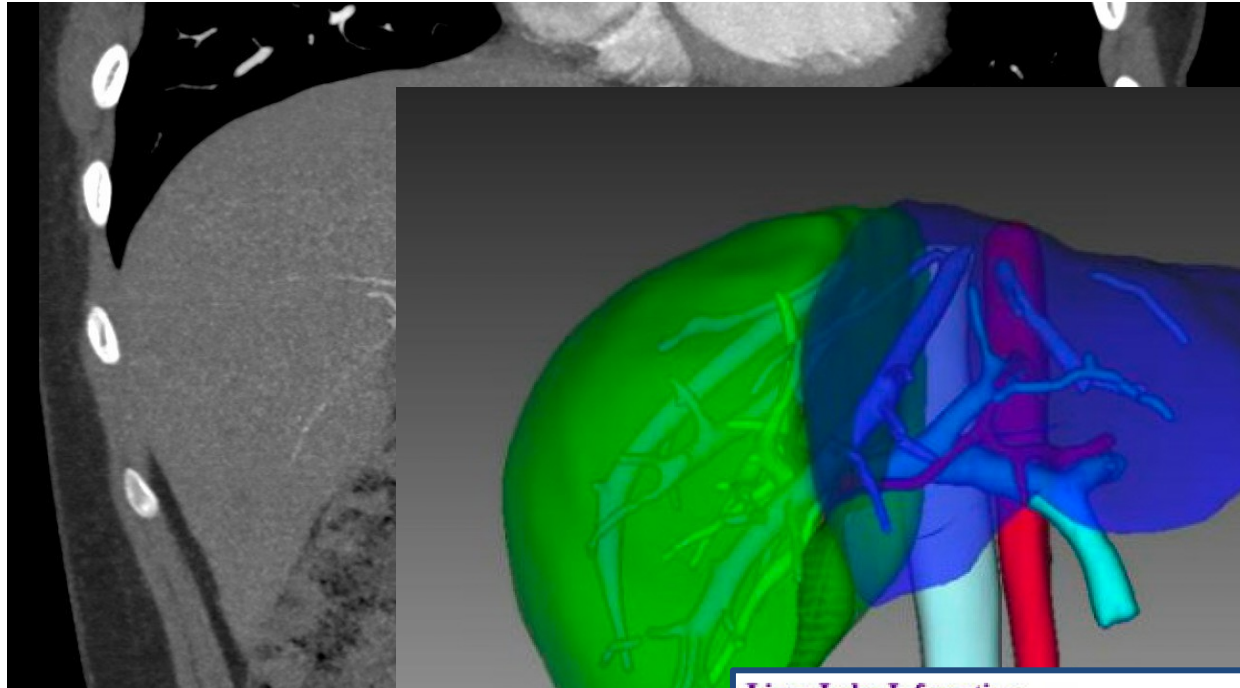
Living Liver Donor Assessment



Living Donor Liver Transplant



Living Donation: Anatomy



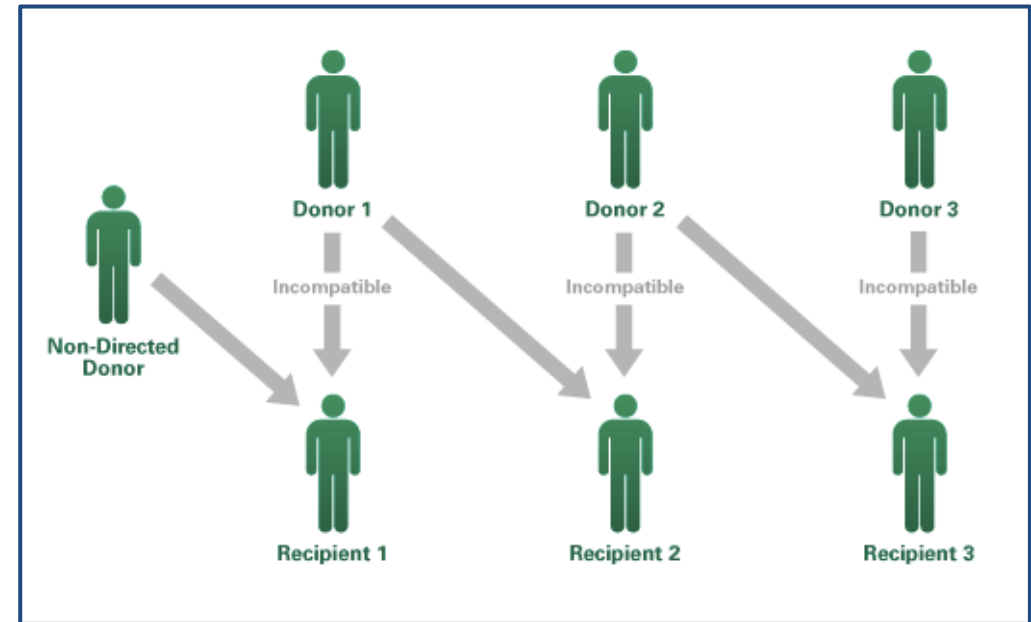
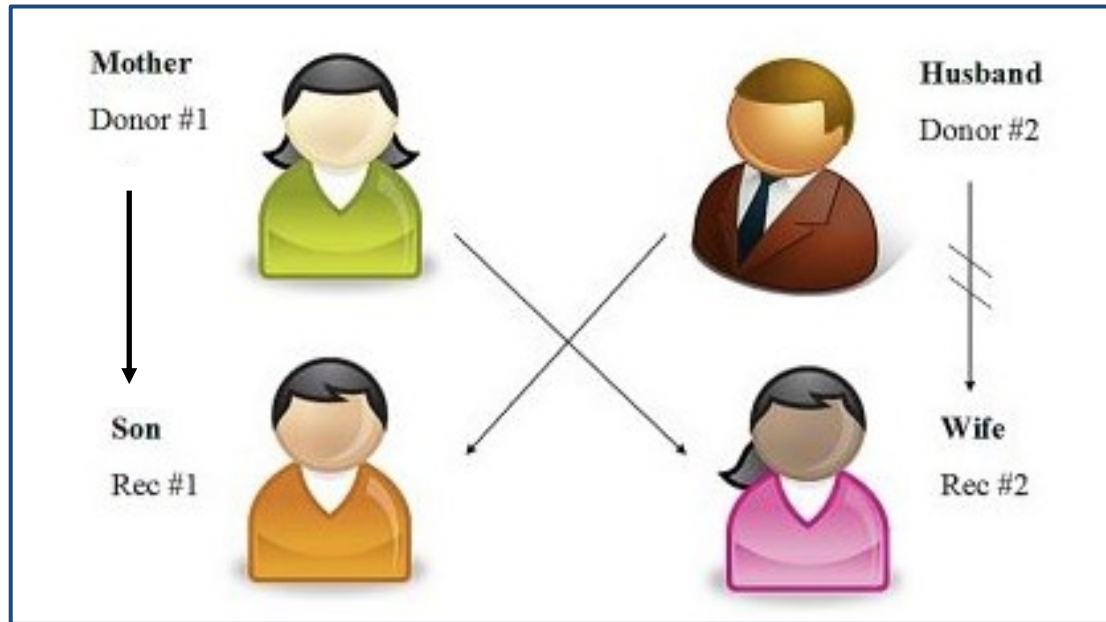
Liver Lobe Information

Left liver (LL) volume(cm ³):448.30	Right liver (RL) volume(cm ³):943.37
Total lesion volume inside LL(cm ³):-	Total lesion volume inside RL(cm ³):-
Total vessel volume inside LL(cm ³):8.03	Total vessel volume inside RL(cm ³):20.26
LL volume less lesion and vessel(cm ³):440.27	RL volume less lesion and vessel(cm ³):923.11
LL functional volume percent:32.29%	RL functional volume percent:67.71%
■ Left Liver Lobe (cm ³):448.30 (32.21%)	■ Right Liver Lobe (cm ³):943.37 (67.79%)

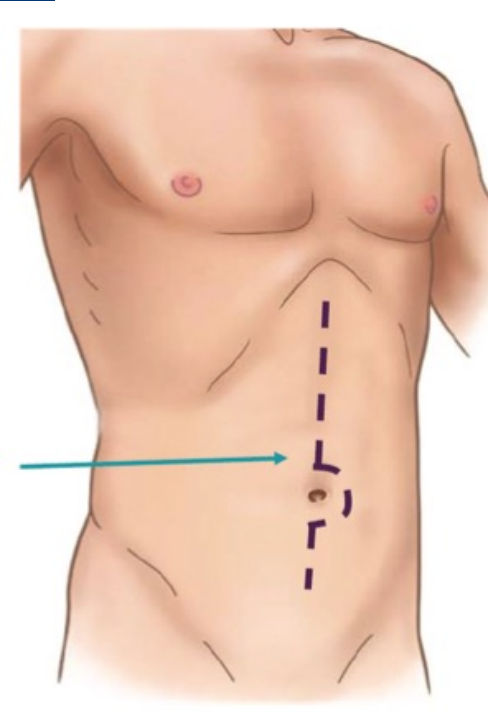
Donor and Recipient Matching

- Blood Type Compatible
- Adequate Remnant for Donor
- Sufficient liver volume for recipient needs
- Size compatible

Liver Paired Exchange



Living Donor Education



LDLT: Simultaneous ORs

Separate surgical teams for donor and recipient

Donor OR: 6hrs

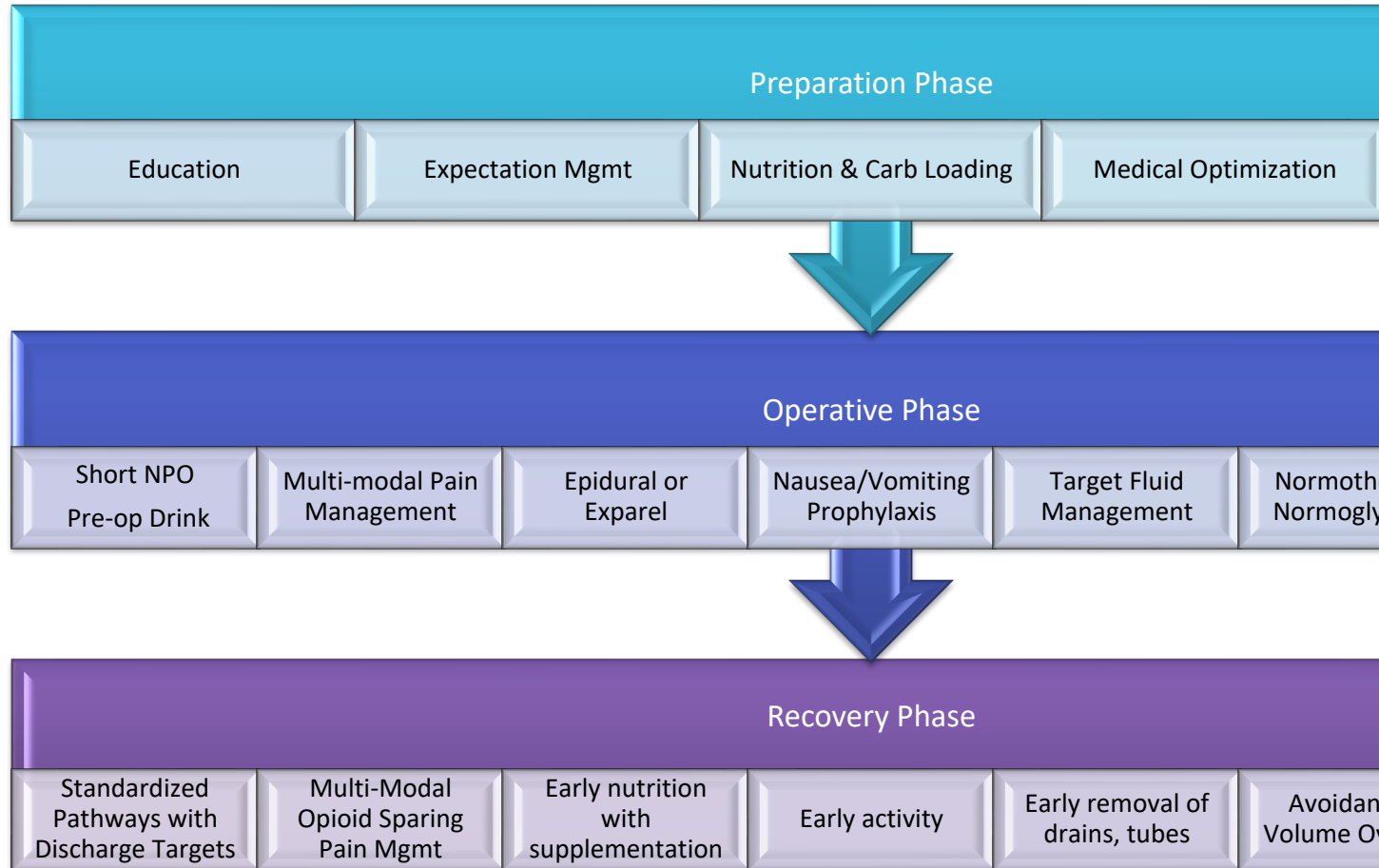
ICU overnight

5d Hospital Stay

6-8 week recovery

Follow-up with transplant center

LDLT: Enhanced Recovery After Surgery



WHAT TO EXPECT BEFORE SURGERY



The Day Before

Research has shown that drinking clear liquids up until a few hours before surgery can help keep the body's natural insulin levels balanced. It also helps better muscle strength after surgery. You will be given a clear carbohydrate liquid to drink designed to support your body through the operation. You will drink one bottle before you go to bed the night before surgery. You may only have clear liquids (no solid food or creamy beverages) after midnight. Drink the second bottle before you walk into the hospital. Nothing to eat or drink after that time.

You will be given a bottle of medicated liquid/foam soap to shower with. This helps your skin be as clean as possible. If you have an allergy to the special soap, you will be asked to shower with antibacterial soap. You should take a shower the night before surgery and the morning of surgery. Sleep on clean sheets and put on clean clothes after these showers. Please DO NOT shave your skin in the area where your surgery is to be done.



Day of Surgery

When you wake up, take your second shower with the special soap and put on clean clothes. Drink your second bottle of clear carbohydrate drink right before leaving for the hospital (or just before walking in to the hospital).



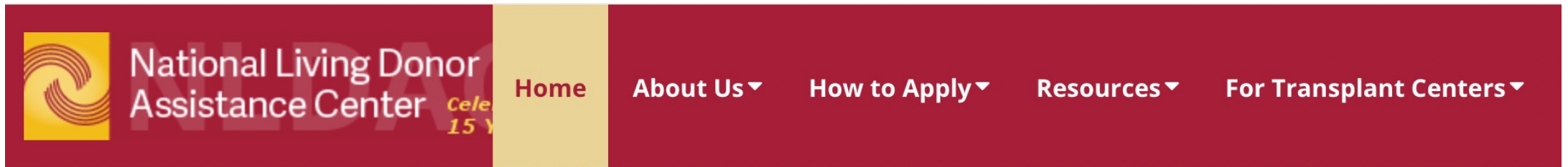
Arrive At The Hospital

When you get to the hospital, go to the surgical area as instructed. After you have checked in, a nurse will help prepare you for surgery. You will meet your anesthesiologist and other members of your surgical team. The anesthesiologist will talk to you about your medical history and decide on a plan of care that is right for you.

You can expect to have an intravenous (IV) catheter in your arm for IV fluids. A warming blanket may be used to help keep you warm after you have changed into a gown. You will be given some pills by mouth to help control your pain after surgery. You may have other treatments to get you ready for your surgery as determined by your surgical team.

Finances and NLDAC

- Donor care covered by recipient insurance
- NLDAC can offer financial support for related expenses: housing, travel, etc

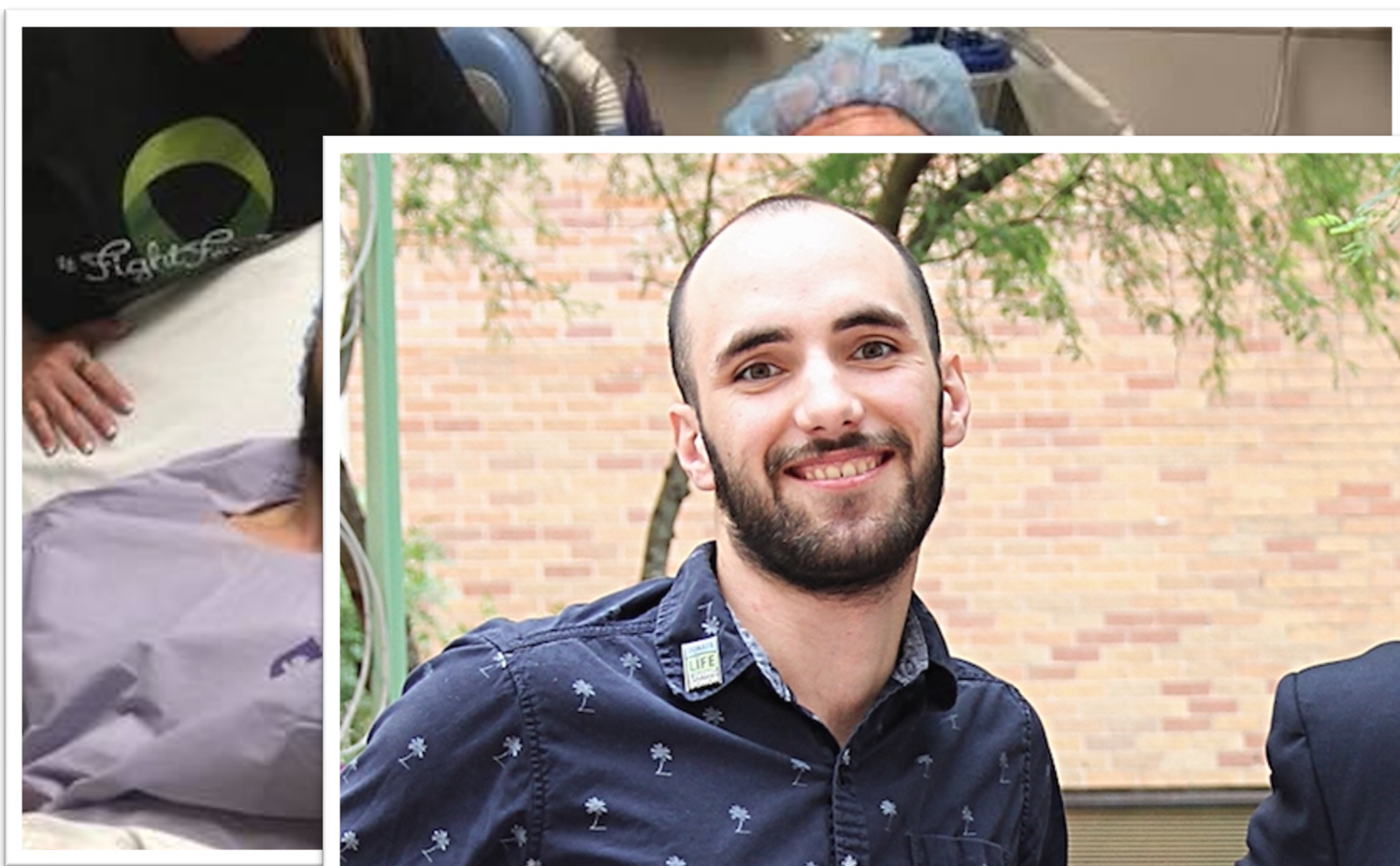


Our Mission

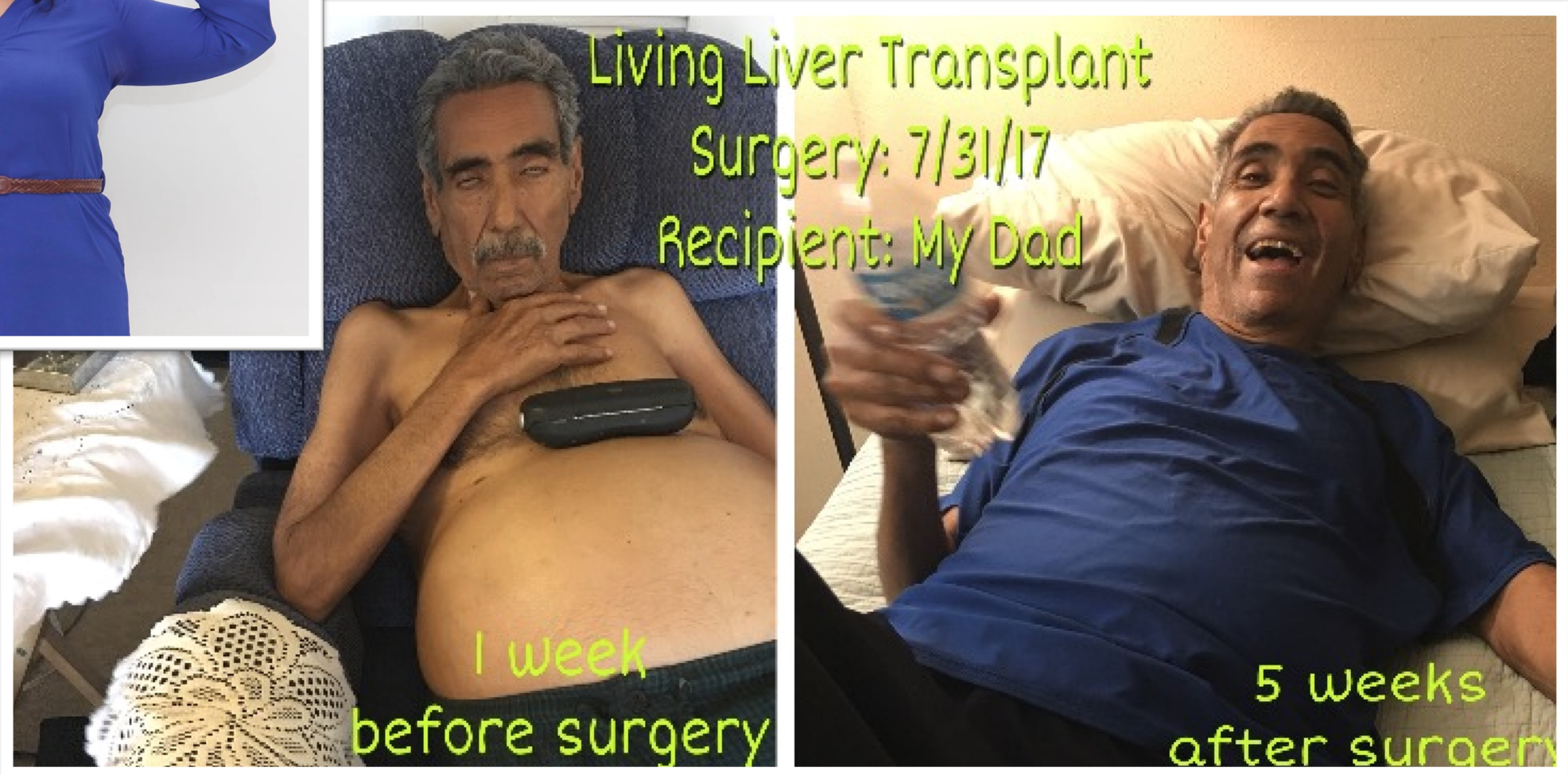
To reduce the financial disincentives to living organ donation

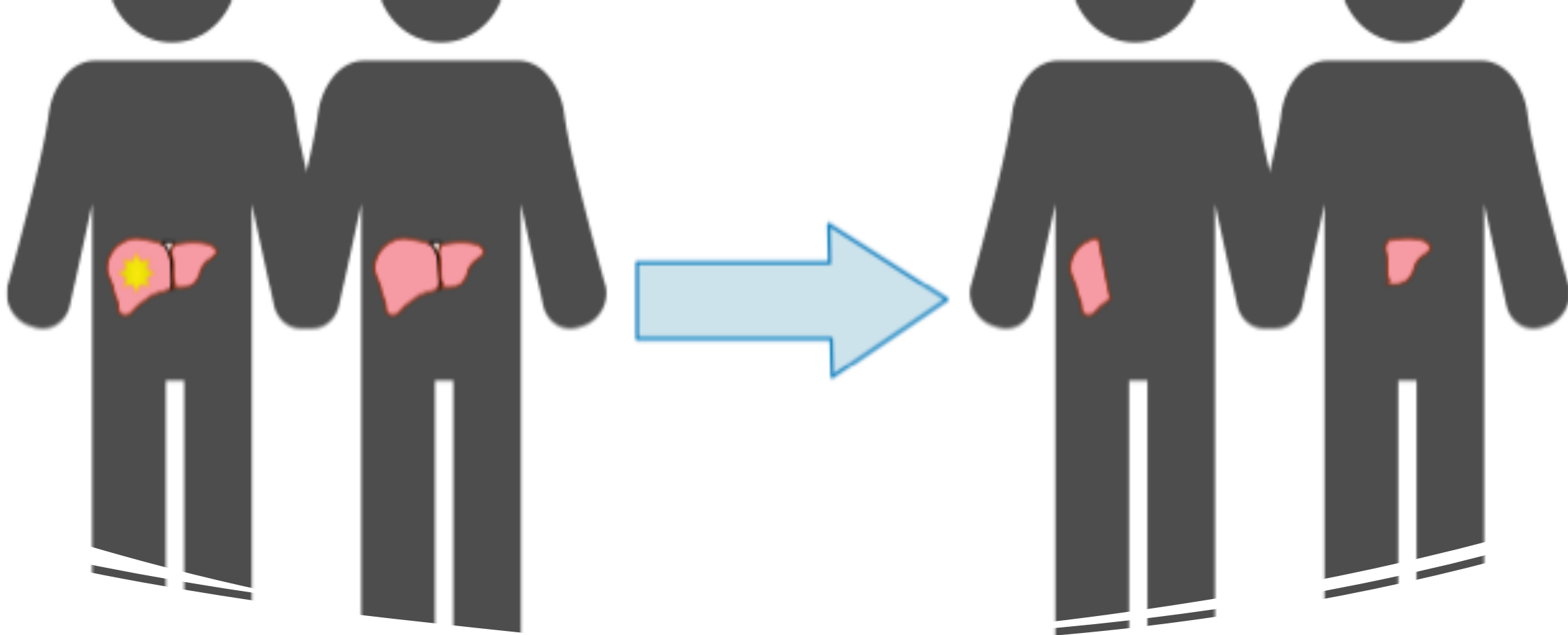


LIVING DONOR LIVER TRANSPLANT



LDLT: IMPACT





RESOURCES

- Universityhealth.com:
 - liver transplant
 - living donation
 - champion for life
- 210-567-5777
- Google: University Health Living Donor
- NLDAC: livingdonorassistance.org
- SRTR.org

THANK YOU

