



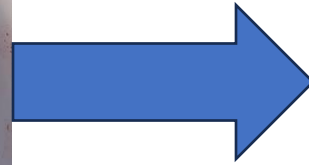
LIVING DONOR LIVER TRANSPLANTATION

J Michael Cullen MD

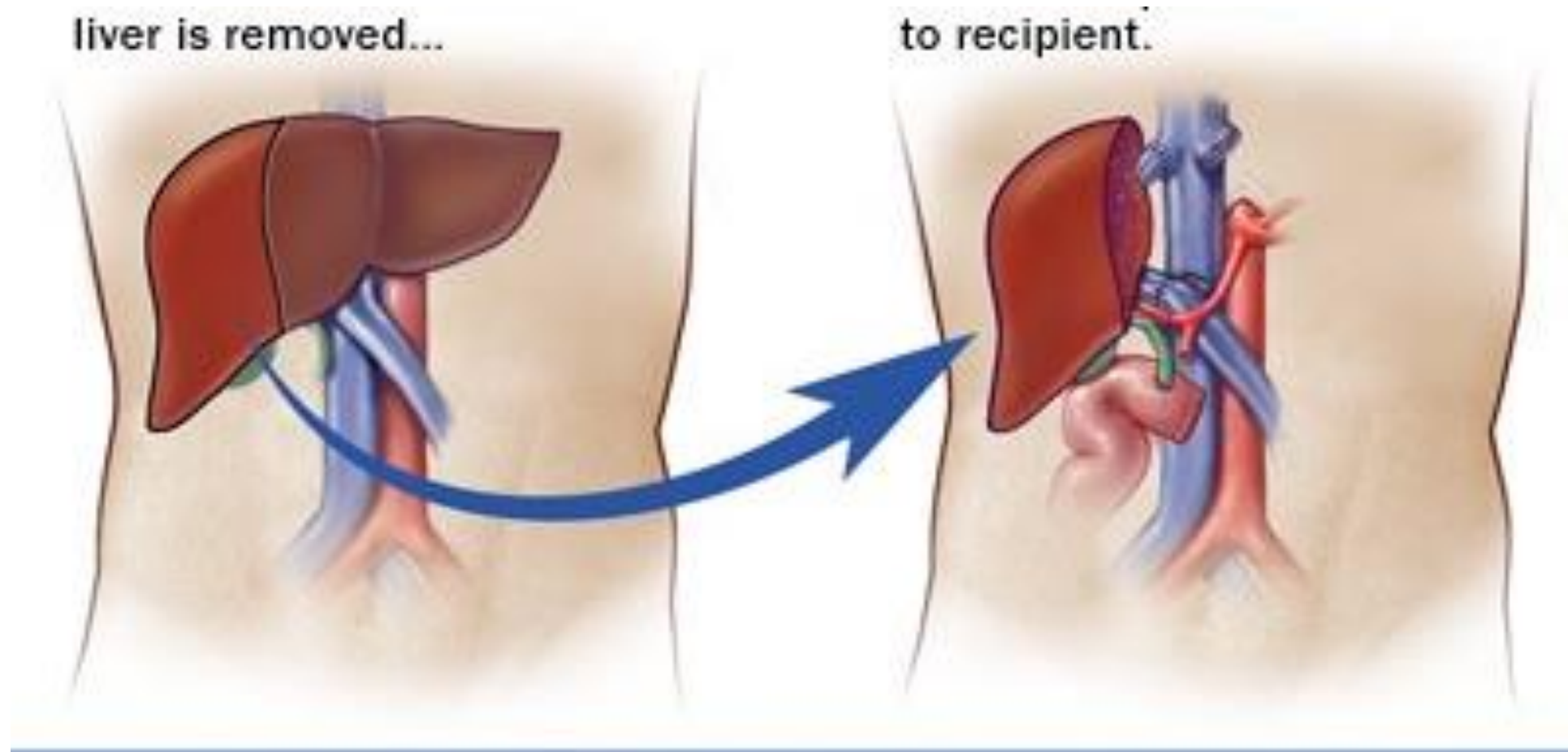
Objectives

- Understand the LDLT operation and differences from traditional whole liver transplantation
- Understand who can be a donor, extensive evaluation process and the risks to the donor
- Understand resources available to donors
- Understand certain populations who benefit most from LDLT

Deceased Donor Liver Transplantation

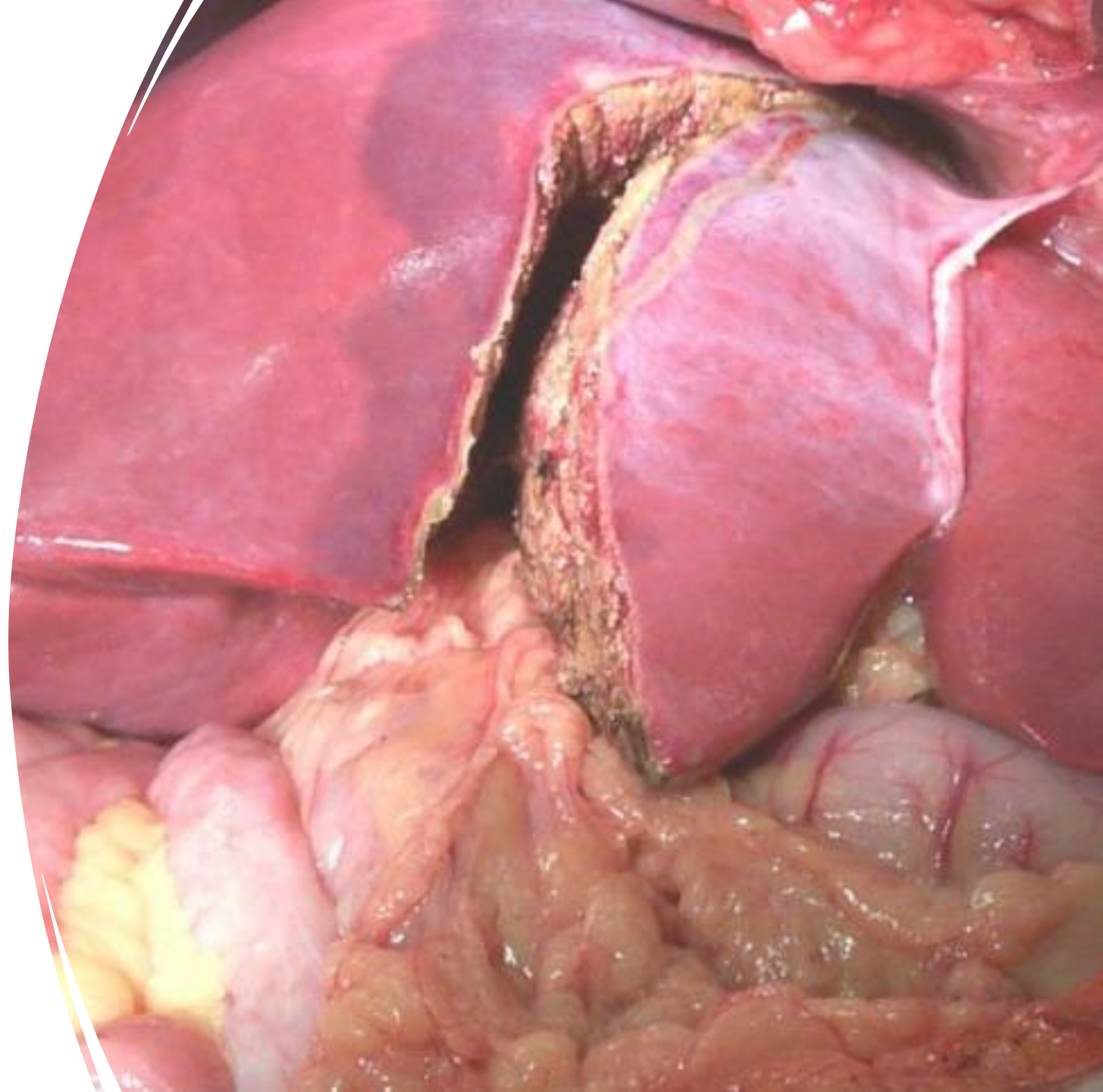


What is Living Donor Liver Transplant?



LDLT Donor Operation

- Open (Midline incision)
- Robotic (Small incisions)
- 4-6h OR time
- 4-6d hospital stay





From Broering et al.

LDLT Donor Safety

Our greatest priority and mission

5,000 donors in USA since 1988

Mortality rate 0.1%-0.3%

Careful Evaluation of:

- LFTs
- Remnant volume
- Fat fraction
- Comorbidities

Who Can Be a Donor?

CRITERIA

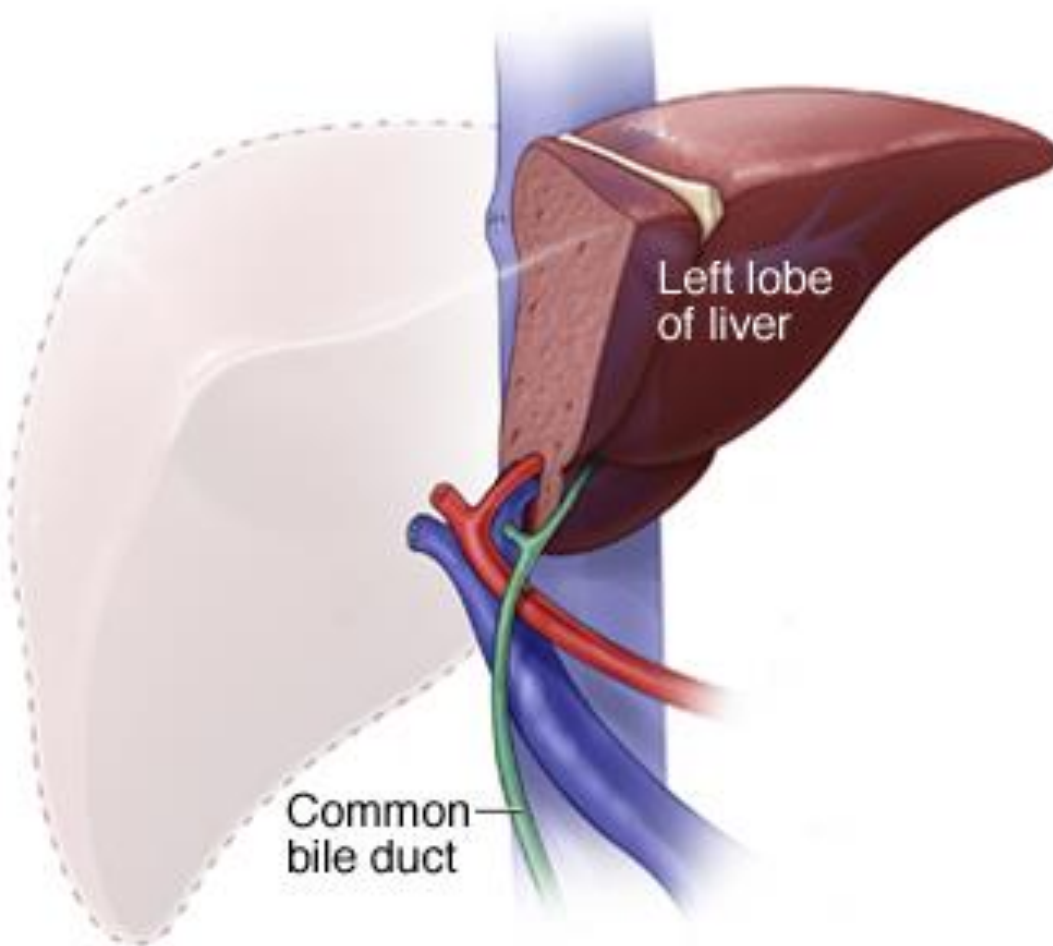
- Age 18-*** (61)
- BMI***
- Healthy
- Stable psychosocial situation
- Anatomically suitable
- Accepting of risks

Donor Evaluation

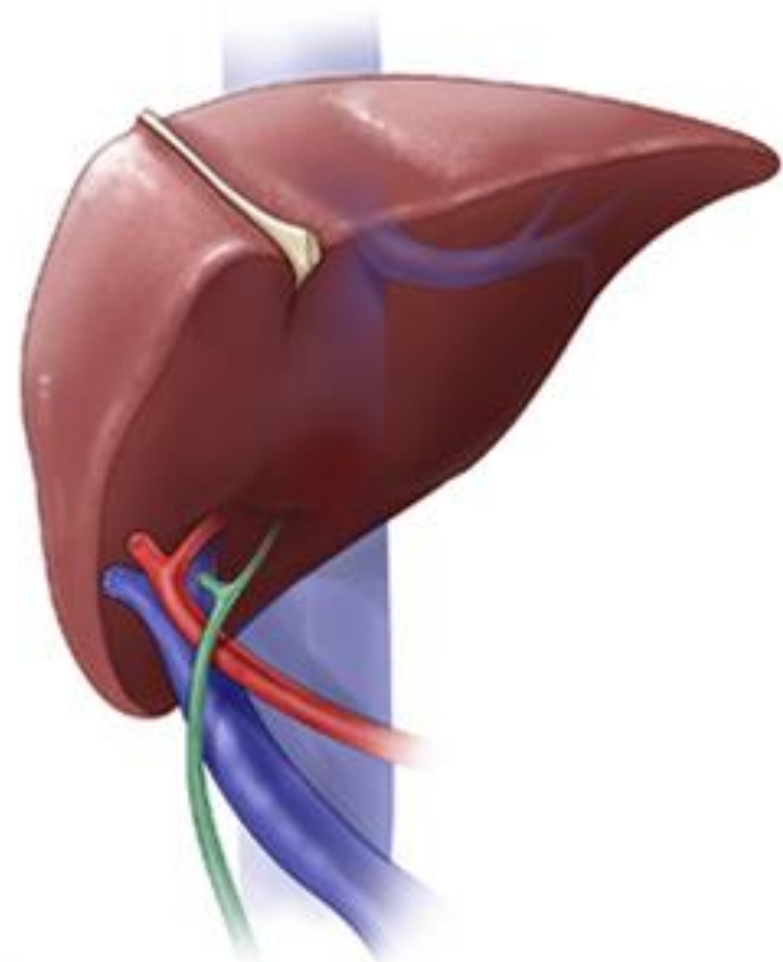
- Multi Disciplinary
 - Hepatology, Surgeons, Cardiology, Psychiatry/Psychology, Social Work, Independent Living Donor Advocate
- Laboratory Evaluation
- Imaging
 - CT
 - MRI

LDLT Donor Hepatic Regeneration

Donor liver immediately after donation

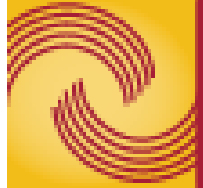


Donor liver two months after donation



Risks and Complications

- Death 0.1%-0.3%
- Inadequate remnant/need for liver transplantation 0.1%
- Hernia (midline incision) 10-20% depending on factors
- Post anesthesia complications



National Living Donor
Assistance Center

*Celebrating
15 YEARS!*

Our Mission

To reduce the financial
disincentives to living
organ donation



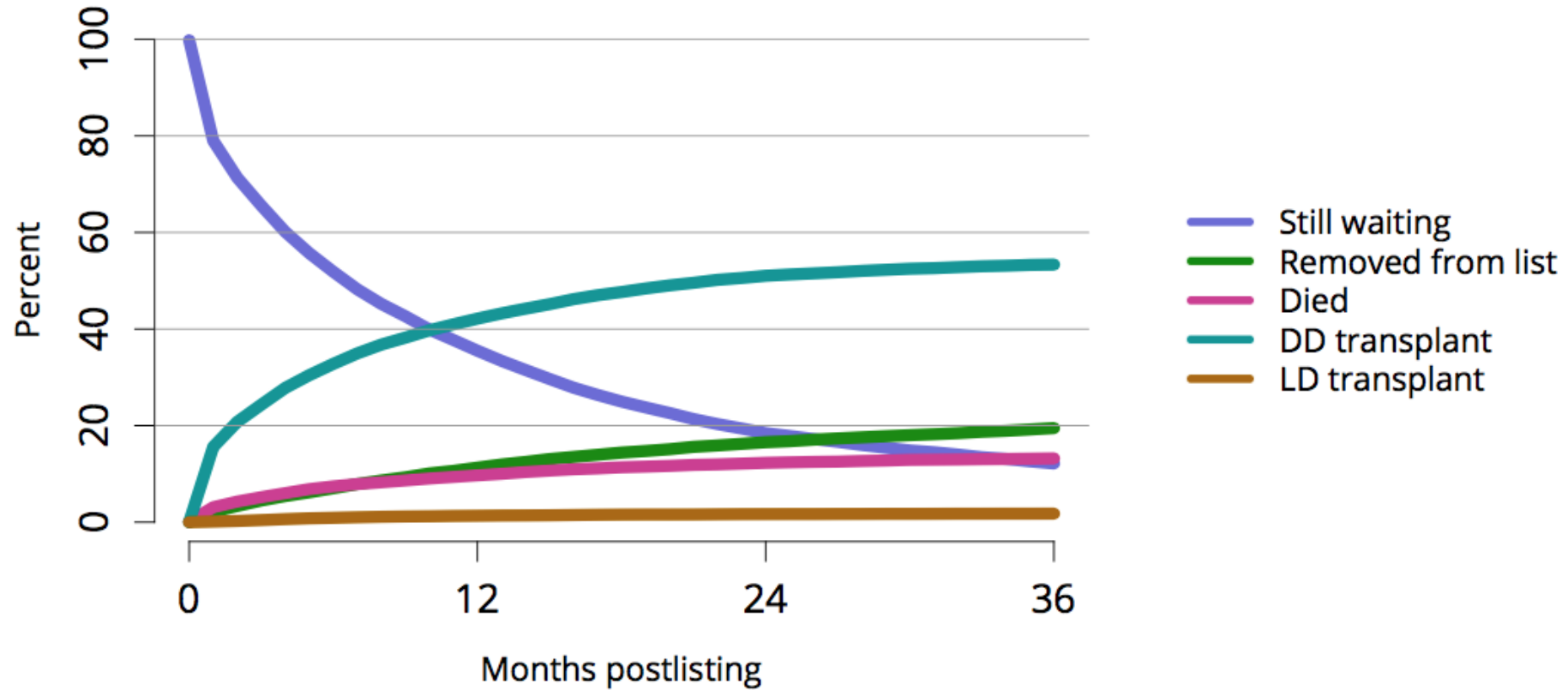


NLDAC
Eligibility

- Based on *recipient's* income
- Non directed donors qualify

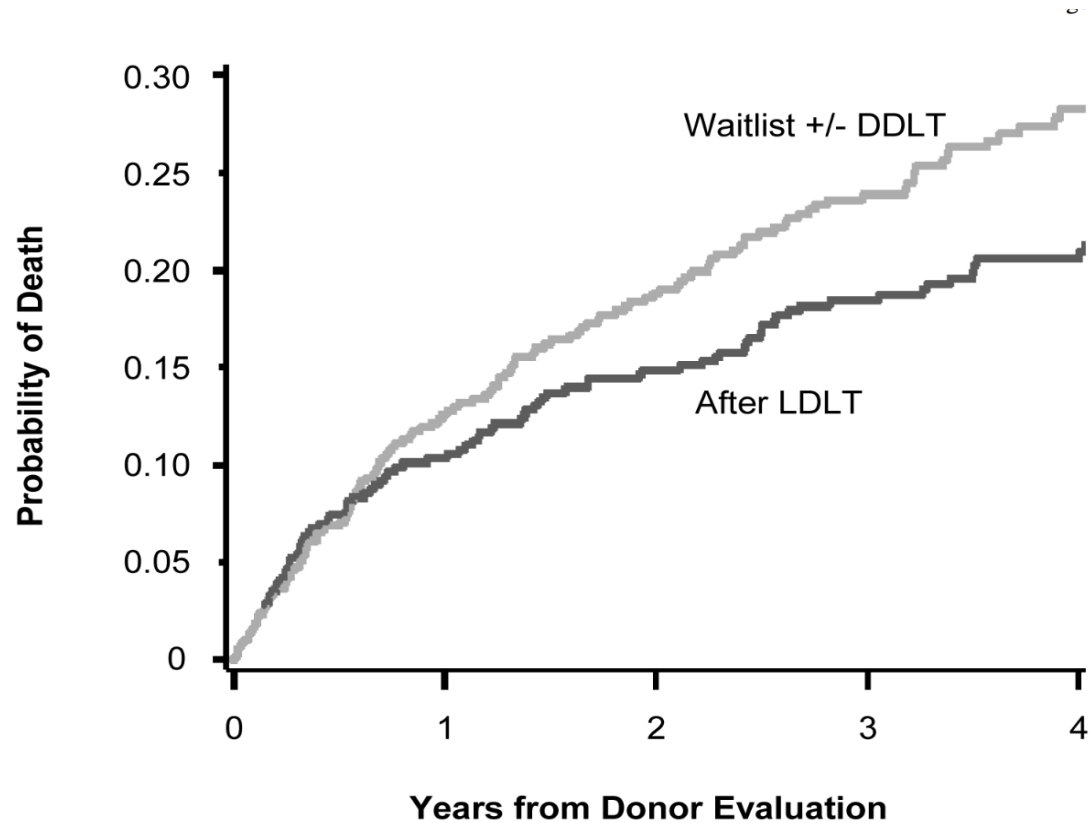
What is the benefit?

Waitlist Outcomes: United States

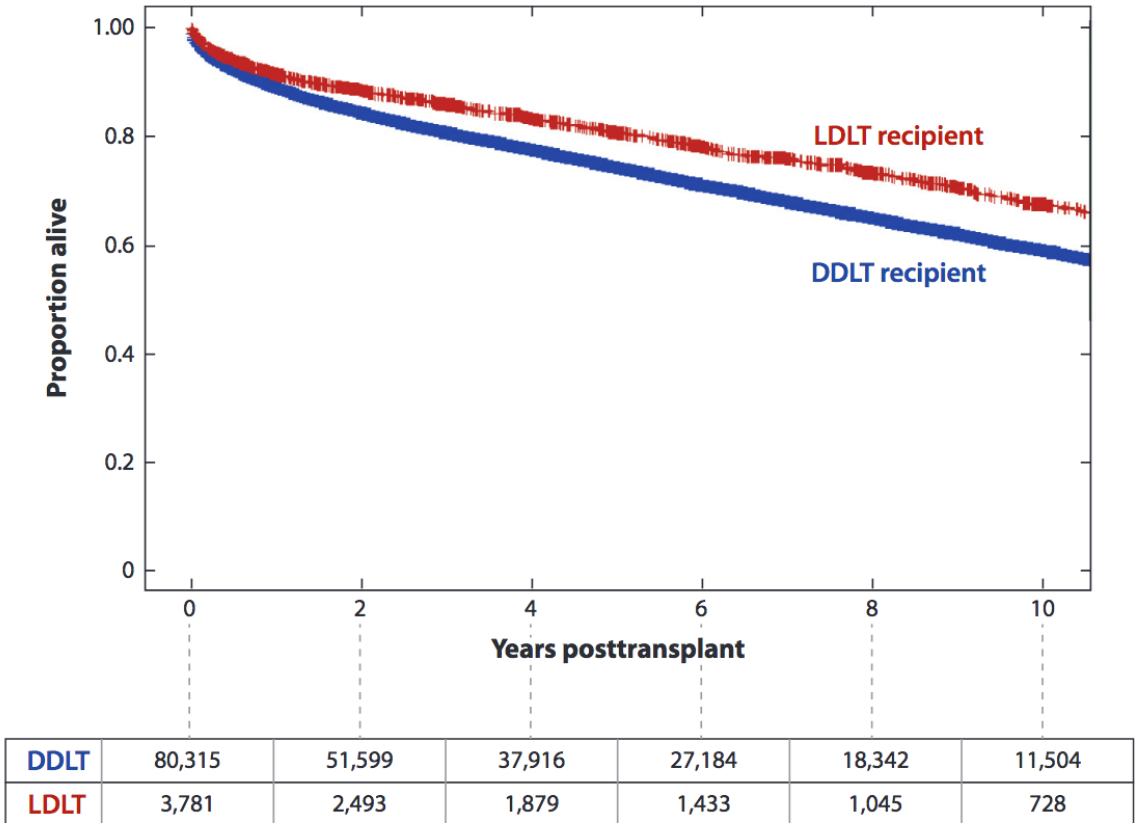


LDLT Outcomes

SURVIVAL: LDLT vs Waitlist +/- DDLT



SURVIVAL: LDLT vs DDLT



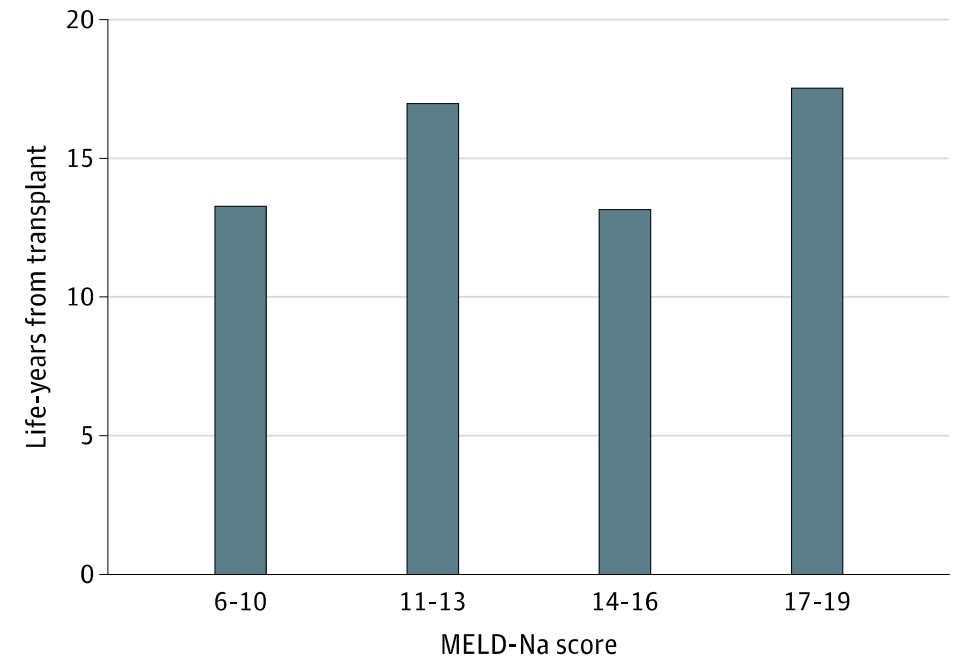
LDLT Outcomes

JAMA Surgery | **Original Investigation**

Survival Benefit of Living-Donor Liver Transplant

Whitney E. Jackson, MD; John S. Malamon, PhD; Bruce Kaplan, MD; Jessica L. Saben, PhD; Jesse D. Schold, PhD; James J. Pomposelli, MD, PhD; Elizabeth A. Pomfret, MD, PhD

Figure 3. Life-Years Saved After Living-Donor Liver Transplant

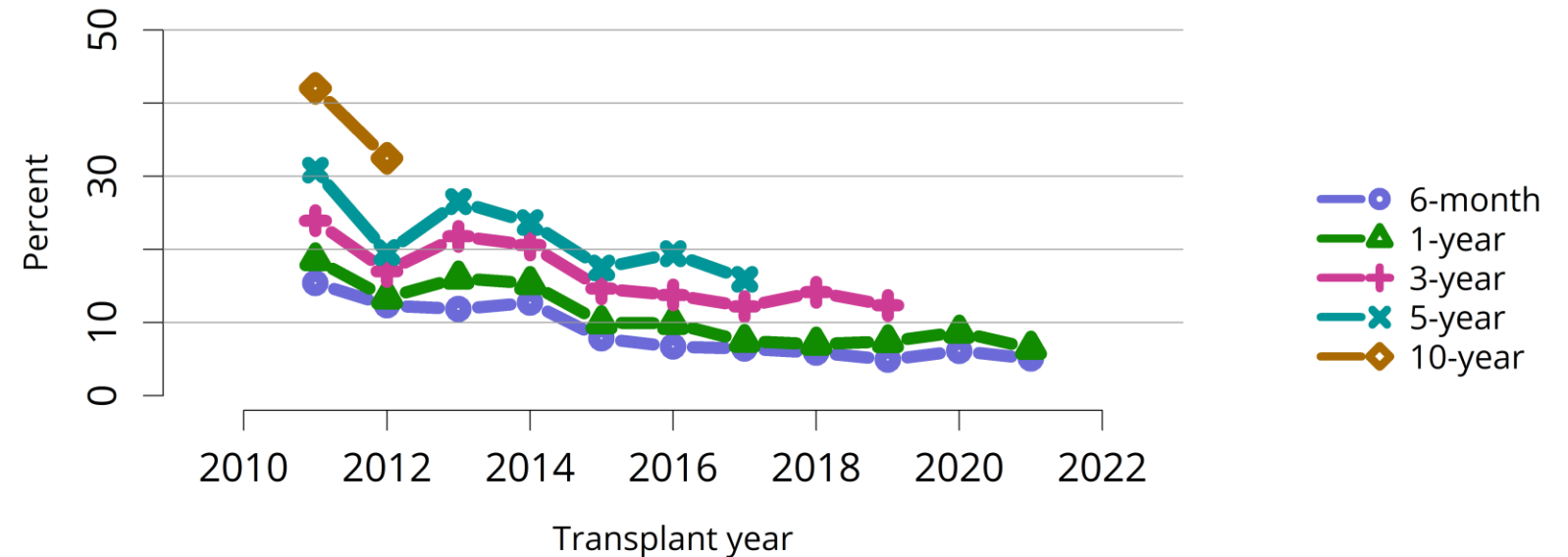


Graft Failure

Outcomes for adult living donor liver transplant recipients have improved and were superior to those of deceased donor recipients, with graft failure occurring in

- 5.1% at 6 months
- 6.5% at 1 year
- 12.4% at 3 years
- 15.9% at 5 years
- 32.5% at 10 years

Figure LI 68: Graft failure among adult living donor liver transplant recipients



Specific
Populations
that benefit
from LDLT?



LDLT Special Populations

- Age >70
- Lower MELD but symptomatic
 - Paras, Thoras, HE
- "Transplant Oncology"
 - HCC
 - Non-HCC oncologic indications
 - Intrahepatic cholangiocarcinoma
 - Colorectal liver metastases

LDLT Summary

- Living Donor Liver Transplant
 - Donation is a private gift that increases patient's access to transplant
 - Can provide a survival advantage to wait listed patients
 - Can be accomplished with low donor morbidity and mortality