

# Is a Transplant Right for Me?

This webinar will start shortly. The slides and the webinar recording will be available at [www.dpcedcenter.org](http://www.dpcedcenter.org)

**Next webinar: August 27, 2020**

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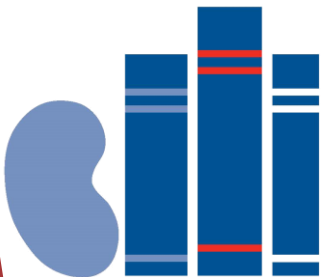
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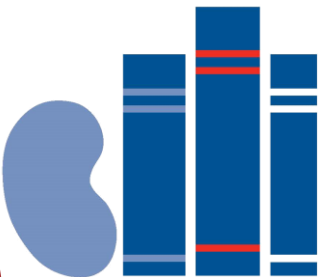
# S. John Swanson, III, M.D., FACS

- ▶ Surgical director and chief of the Kidney Transplant Program at Christiana Care in Newark, Delaware
- ▶ UNOS certified surgical director of the Walter Reed Army Medical Center Kidney/Pancreas Transplant Program 1991-2005
- ▶ Chief of the Organ Transplant Service 1994-2005



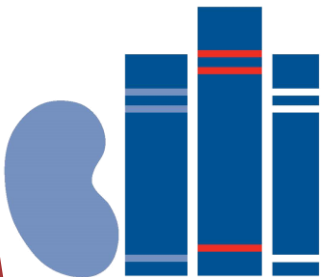
# Mike Guffey

- ▶ Cadaveric Transplant Recipient - January 2012
- ▶ Worked Full Time While on Dialysis and After Transplant
- ▶ Had Private Insurance as Secondary



# Danny Iniguez

- ▶ On and off dialysis since 12 years old and diagnosed with kidney failure as a result of a bicycle accident
- ▶ Receive transplant from mother, which lasted for seven years until his body rejected it in 2000
- ▶ Went back on dialysis and had to wait over ten years to receive a new transplant





# Introduction to Transplant

*Assessing if transplant is right for you.*

**S. John Swanson, III, MD, FACS**  
**Chief, Kidney Transplant Program**

Kidney Transplant Program  
Christiana Care Health System  
Medical Arts Pavilion 2



# Treatment Options

**Kidney transplant** - preferred for those medically eligible

- ✓ Living donor (<1 year)
- ✓ Deceased donor (5-10 year wait; 60% waitlist mortality in 5years)

**Dialysis** - a bridge to transplant for those medically eligible

- ✓ Hemodialysis - in-center vs home
- ✓ Peritoneal Dialysis


Patient survival is better if you are transplanted than staying on dialysis\*.

\*Depends on age and other health conditions; and if medically cleared to be transplanted.



# Transplant is NOT an option if...

- Severe heart disease without possibility of intervention.
- Other organ failure requiring transplant - can be referred to another program.
- Patients with irreversible essential organ failure.
- Current malignancy (cancer).
- Active infection.
- Multiple medical problems making surgery unsafe.



# Transplant may or may not be right for you if...

- Age > 75
- Significant blood vessel disease.
- Patients who are unable to care for themselves and are without a support person to help them.
- Morbid obesity
- Patients with active illegal drug use
- Patients with psychosocial contraindications





# Transplant may not be right for you if... (part 2)

- Patients with active illegal drug use
- Patients with psychosocial contraindications
- Patients with cancers that have been treated
- Tobacco abuse (smoking or chewing)
- Untreated sleep apnea / CPAP non-compliance



# To be eligible for transplant...

On Dialysis (hemodialysis or peritoneal)

**OR**

Not yet on dialysis, but kidney function\* or below 20%

\* Measured by the estimated glomerular filtration rate (eGFR)



# Referral

- Nephrologist - in the late phase of kidney disease
  - Pre-emptive
- Dialysis unit
- Self-referral



# Evaluation



# Transplant Team

- Transplant Coordinator - “quarterback”
- Transplant Nephrologist
- Transplant Social Worker
- Transplant Dietician
- Transplant Pharmacist
- Transplant Financial Coordinator
- Transplant Surgeon

# What tests do I need to be listed?

## Cardiac testing

- ✓ To decrease risk of adverse events during or after transplant
- ✓ Ensure your safety

## Blood work

- ✓ To decrease risk of adverse events during or after transplant (Includes viral testing)
- ✓ Ensure your safety

## Radiology

- ✓ Chest X-ray
- ✓ CT Scan of the abdomen and/or ultrasound





# What tests do I need to be listed?

Your primary care physician may help you coordinate possible other health maintenance testing (to be current)

- ✓ Mammogram for women over 40.
- ✓ Gyn / PAP exam for women of all ages.
- ✓ Colonoscopy for everyone over 50.
- ✓ Dental clearance to rule out infection and cancers.

Health maintenance needs to be completed within 3 months of transplant evaluation.

# Testing must be complete!!

You will NOT be approved for transplant or added to the national waitlist until...

Testing is completed and results are received/reviewed by transplant team!

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Wait time is key factor in getting a deceased donor transplant!

- ✓ Average waiting time is 5 - 10 years in our region.
- ✓ Blood type plays a major role in how long you wait for a deceased kidney.



A 5+ years  
O 6+ years  
B 7+ years





# Question

Does an evaluation  
guarantee you a place on  
the waiting list?



# If approved for transplant...

**You will be notified and registered for the national waitlist.**

- **UNOS: United Network for Organ Sharing**

Federal agency that manages the process and information on all potential listed recipients throughout the U.S.

- **OPO: Organ Procurement Organization**

- ✓ “Gift of Life” is our local organ procurement organization
- ✓ Serving Delaware, southern NJ, eastern PA
- ✓ Notifies transplant centers in this region when a deceased donor organ becomes available



# Your Current Nephrologist

- While waiting on the list, you will still be cared for by your current nephrologist.
  - ✓ Dialysis
  - ✓ Hospital admissions
- Immediately after transplant, your care will be managed by the transplant team.
- After 3-6 months, your care will be shared by both the transplant team, your current nephrologist and primary care physician.



# Why is there a wait list?

Approximately 750,000 people in the United States have end stage renal disease.

- >100,000 people are on the kidney transplant waiting list.  
*...increasing every day.*
- >17,000 kidney transplants are performed each year.
  - ✓ 33% are from living donors - *preferred*
  - ✓ 67% are deceased donors

*Source: kidney.org (2016)*



# Listing Status

## Listed Status 1 (active) **This is your goal!**

- Testing is complete
- Ready for transplant AND to be offered a deceased donor kidney.

## Listed Status 7 (inactive)

- Gaining time, but will not be called for a deceased donor organ offer

### Reasons why you may be listed status 7

- ✓ Change in functional status
- ✓ Waiting 1-year post heart stent
- ✓ Something that **TEMPORARILY** makes you NOT a candidate for transplant

# Monthly blood samples

Once listed, a tube of your blood will be sent each month to the tissue typing lab to:

- Check for the presence of new antibodies (PRA)
- Be used for testing against any potential donors when available



**Jefferson Hospital is our tissue typing lab.**

# Panel reactive antibodies (PRA)

- Recipient's serum is tested against a panel of cells from many people.
- Increases due to blood transfusions, prior transplants, abortions or pregnancy.
- A higher PRA makes finding a donor more difficult and impacts kidney survival.



# What is multi-listing?

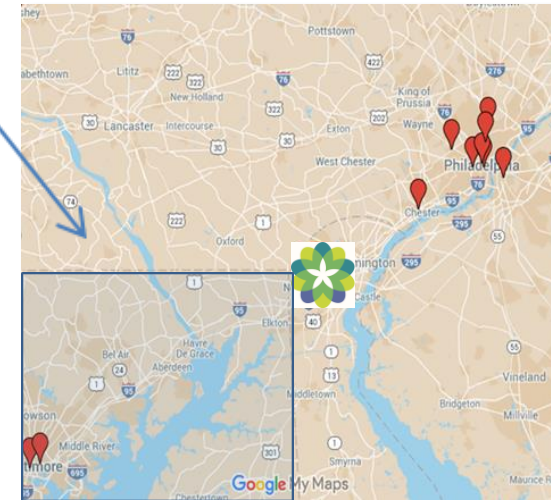
You may list in other regions (OPOs) ie., Maryland's "Living Legacy"

## Advantages

- ✓ Increases your chances to match with a deceased organ donor
- ✓ Could decrease your wait time for a deceased donor

## Disadvantages

- ✓ You must travel to the kidney for transplantation as well as all of your postoperative care



There is no benefit in multi-listing within the same OPO region, since you would receive the same kidney offers.



# Types of Donors: A True Gift

## Living Donors



## Deceased Donors



Source: Getty Images & <http://bangordailynews.com/2014/03/13/living/kidney-donor-from-veazie-recipient-from-caribou-form-special-bond/>

# Living donor transplants

## Types of donors

- ✓ Living related
- ✓ Living unrelated



## Criteria for living donors

- ✓ Must be between 18 and 65 year old
- ✓ Must be healthy
- ✓ Must be willing and want to give
- ✓ Must have compatible blood types



# Advantages for living donation

- You do not have to wait years at risk on a list.
- Shorter time between kidney removal and transplantation
- Kidney spends minimal time “on ice” waiting to be transplanted
- Planned surgery
- Better outcomes





# Do you have a living donor?

Anyone who wants to be or could be a living donor should start by talking with their primary care physician to ensure age appropriate testing is up-to-date.

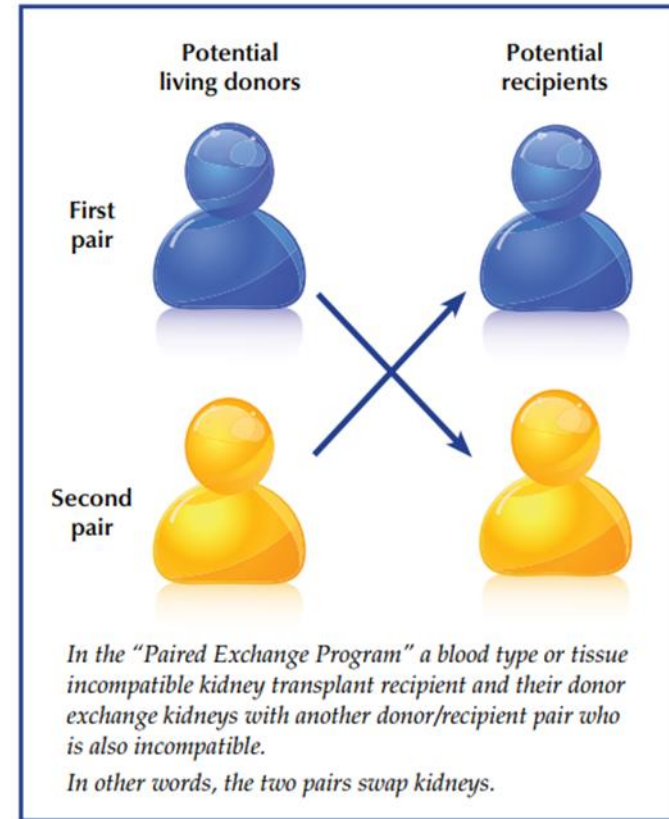
- ✓ Annual physical with primary care or family physician.
- ✓ Mammogram for women over 40
- ✓ Gyn exam for women
- ✓ Colonoscopy for anyone over 50
- ✓ Vaccinations

# Do you have a living donor?

Recipient Blood Type	Donor Blood Type
O	O
A	A, O
B	B, O
AB	AB, O, A, B

# Paired kidney donation programs

- An alternate way of receiving a kidney from a living donor, when you and your donor are not a match.
- You and your donor are entered into a paired donation program... *if you both agree.*
- We participate with NKR and UNOS paired donation programs.
  - ✓ National Kidney Registry
  - ✓ United Network of Organ Sharing





# Deceased donor transplants

**Organ are given a value based on the following information:**

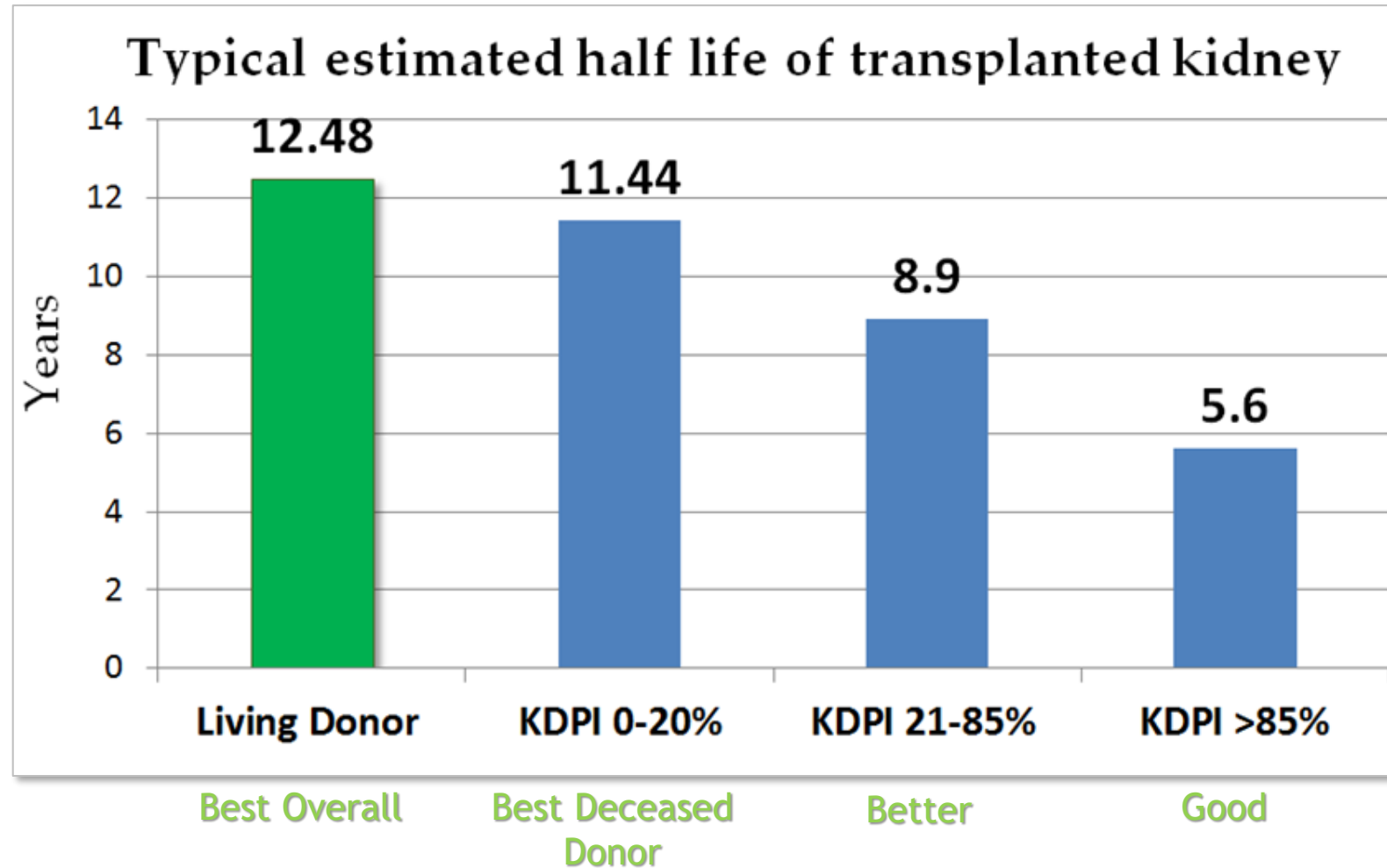
- Donor Age
- Race/ethnicity
- Hypertension
- Diabetes
- Serum Creatinine
- Cause of death-Stroke
- Height
- Weight

- Donation after cardiac death (DCD)
- High risk behaviors (PHS)
- Hepatitis C Status

*Only candidates who already have Hepatitis C can receive these kidneys*

# Quality of donated kidney

Kidney Donor Profile Index (KDPI)





# KDPI categories... “Car story”



KDPI 0 – 20%

Allocated to patients those with longest expected post transplant survival



KDPI 21 – 35%

Allocation to pediatrics, then according to wait time



KDPI 36 – 85%

Allocation according to wait time



KDPI > 85%

Allocation to those who will accept kidney offers from middle aged donors with known prior health issues.

# KDPI > 85 Kidney



- “Not quite ideal” kidneys
- Separate waitlist for recipients who sign a consent to consider offers
- Kidney survival rate is typically lower than with younger, healthier donors but . . .

If you are over 40, your survival rate is better than what it would be on dialysis!



# Donation after cardiac death (DCD)

- Donor fails to meet the criteria for brain death.
- In order to be declared deceased, the donor's heart must stop beating.
- Donor is removed from life support before kidneys are removed.
- 40% chance of delayed graft function, but kidneys will recover.

You may need dialysis for a short time after your transplant



# Public Health Services (PHS) increased risk donors

- All PHS donors are tested for HIV and hepatitis BEFORE you are called with the organ offer.
- Organs coming from donors that meet the criteria of the Public Health Services have increased risk for:
  - Sexual behaviors
  - Imprisonment
  - Drug use
  - Greater than 10 blood transfusions
  - Tattoos/body piercings
  - Travel out of the U.S.
- You will be told if kidneys are coming from donor with increased risk.
- You have the right to accept or not accept the offer.

1/3 of deceased donors are considered PHS high risk.

# How are organs offered?

- 24/7/365 process managed by OPO and UNOS.
- The OPO (“Gift of Life”) notifies UNOS.
- UNOS generates a new list for each kidney offered.
- Transplant team first reviews the donor information.
- Patients are then notified by the transplant coordinator.



# When a kidney becomes available

- We have **1 hour** to reach you by phone!
- Keep your contact information updated with us.
- **Answer the phone!**
  - ✓ Ensures us that you are available.
  - ✓ We ask questions about your health.
  - ✓ We discuss the offer with you.
  - ✓ You decide, if you want the kidney or not.





# When a kidney becomes available

- You may receive **many offers** before you are transplanted.
- There are **many recipients** offered each organ:
  - ✓ Primary means you are first on the list.
  - ✓ Back up means you are not the first person in line.
- You will be at a different place in line for each kidney offer.
- Crossmatch to see if you are compatible with the donor.



# No such thing as “Top of the List”

**Order of the list changes with each organ offer based on:**

- Donor’s blood type
- Crossmatch results
- Recipient’s time on the list
- Recipient’s state of health at the time
- KDPI of the donor

**UNOS makes the ultimate decision for who gets the organ!**



# Crossmatch tests

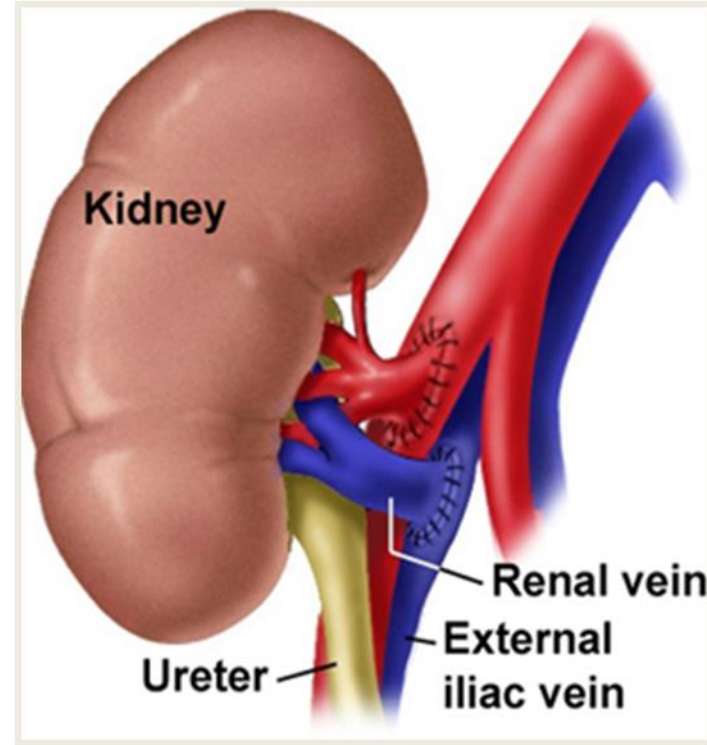
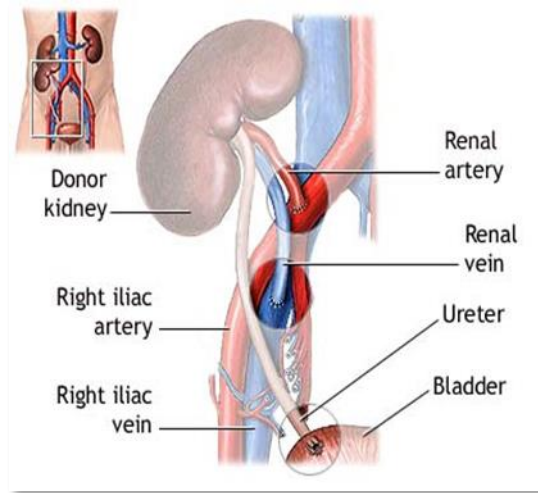
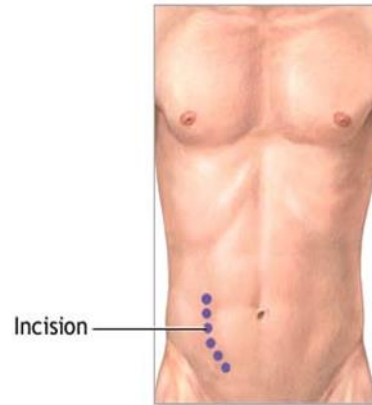
## Crossmatch tests if a recipient and donor are compatible.

- Negative crossmatch is desired.
- A positive crossmatch means you cannot accept a kidney from this donor.
- Antibodies\* can develop, so repeat crossmatch testing is sometimes required during evaluation of living donors and prior to all transplants.



\* Antibodies are fighter cells against a specific protein in the donor

# Kidney transplant operation





# Potential surgical issues/risks

- Bleeding
- Infection
- Fluid collections in wound
- Non-functioning kidney
- Clotting issues
- Urinary leak or blockage

**Most complications can be corrected and happen infrequently.**



# What happens after transplant?

- Hospital length of stay
  - ✓ 3 - 5 days with living donor kidney
  - ✓ 4 - 6 days with deceased donor kidney
  
- Anti-rejection medications are started immediately
  - ✓ 2 - 3 medications for the life of the kidney.
  - ✓ Keeps your body from attacking the new kidney.
  - ✓ Side effects typically include nausea, vomiting & diarrhea.
  - ✓ Increased chance of infections and cancers.
  - ✓ Missed doses will increase the chance of rejection
  
- Follow-up exams and lab work



# Post-transplant follow-up

- Transplant clinic follow-up in Medical Arts Pavilion 2
  - ✓ Short-term
  - ✓ Long- term office visits
- Thanking the donor family
- Continued care from transplant team for the life of the kidney
- It is extremely important to stay in contact with your transplant team...**even if you move.**

# Medications after transplant

- Can be up to 10 different medications and 20-30 pills a day!
  - ✓ Prograf® (tacrolimus)
  - ✓ CellCept® (mycophenolate mofetil)
  - ✓ Nulojix® (belatacept) - monthly IV infusion
- Some are preventative to avoid infections (Bacterial, viral, fungal)
- Continue medications for blood pressure, cholesterol, diabetes.
- Anemia: may still need EPO shots





# Potential medical problems

- Cancer
  - ✓ Skin: 50% @ 5yrs, 80% @10yrs
  - ✓ Kidney: your old ones
  - ✓ Post transplant lymphoproliferative disorder 1% risk caused by the EBV/Mono virus
  
- Delayed Graft Function aka “sleepy kidney”
  - ✓ You may need some dialysis for a short time
  
- Rejection does not always mean you lose your kidney
  - ✓ Biopsy at 3-months and 1-year
  - ✓ **Can be silent! Frequent lab test are needed**

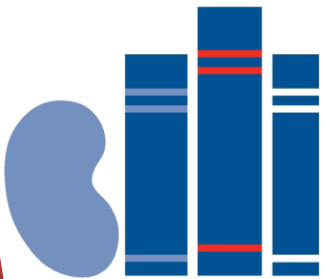


# You...

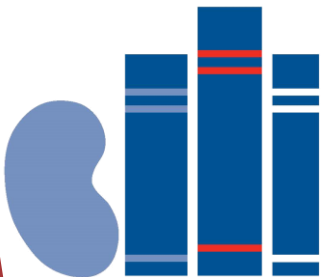
- Are the most important member of our team.
- Must be involved in your care.
- Should contact your coordinator with changes in phone numbers, addresses, & dialysis centers.
- Should contact your coordinator with changes in your health.



# Mike's Transplant Experience and Tips

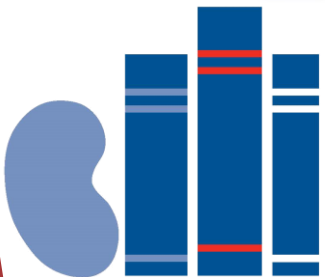


# Danny's Transplant Experience and Tips



# Questions?

**Please use the Chat Box**



# Thank You for Attending Today!

**Please complete the  
Feedback Form**

- ▶ **Join us on August 27<sup>th</sup> for our next webinar on Dialysis Access – What Every Patient Should Know!**

