

HEART TRANSPLANT



Orientation Class at
University of Washington Medical Center

OVERVIEW

This slideshow explains:

- Your Transplant Evaluation
- Transplant Listing
- Heart Transplant Surgery
- Recovery After Surgery
- Rejection
- Self-Care Tips

YOUR TRANSPLANT EVALUATION

Heart failure can be caused by:



- A heart attack
- Disease in the heart valves
- A virus
- Long-term high blood pressure
- A **congenital** problem (heart problem you were born with)
- Unknown causes

Heart failure can lead to **cardiomyopathy**, which is disease in the heart muscle.

YOUR TRANSPLANT EVALUATION

You will have an evaluation to:

- Check how well your heart is working now.
- Rule out any other diseases.
- Explore other treatment options, such as:
 - Changes in your medicines
 - Surgery to repair or replace valves in your heart
- Assess your **prognosis** (how you will do over time) with and without a heart transplant.



YOUR TRANSPLANT EVALUATION

You may have some or all of these heart tests as part of your evaluation:

- **Angiogram** – looks for blockage in your blood vessels
- **Right heart catheterization** – measures your heart function and pressures in your heart
- **Electrocardiogram (EKG)** – reading of your heart rhythm
- **Echocardiogram** – ultrasound of your heart
- **Vascular studies** – ultrasound of blood vessels to check blood flow



YOUR TRANSPLANT EVALUATION



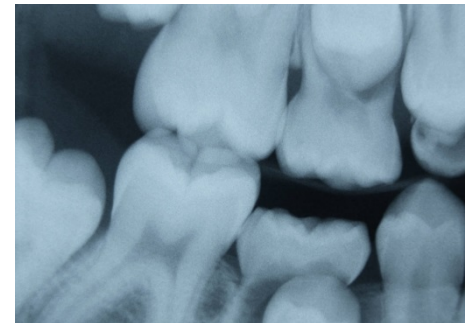
Other tests you may have:

- Lung function tests to check your breathing
- Tuberculosis (TB) test
- Colonoscopy or testing your stool to check for blood (you may have both of these tests)
- Chest X-ray and chest CT scan to give pictures of your lungs and heart (for former smokers)
- Mammogram (for women)
- PSA and prostate exam (for men)

YOUR TRANSPLANT EVALUATION

We will also:

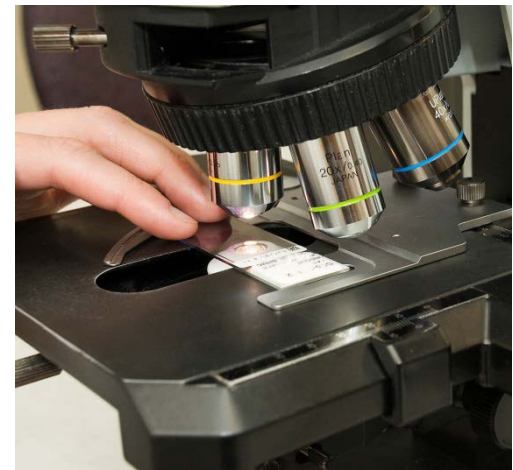
- Check what vaccines you have had in the past
- Ask you to have a dental exam and get an OK for transplant from your dentist
- Ask you to meet with a dietitian to review your eating habits and current nutritional state
- Make sure your health insurance will pay for your transplant and transplant medicines



YOUR TRANSPLANT EVALUATION

The next 3 slides describe lab tests you will have during your evaluation:

- ***Blood chemistry*** to measure:
 - Complete blood count (CBC)
 - Iron levels
 - Thyroid function
 - Cholesterol levels
- ***Diabetic work-up*** (all patients are screened for diabetes)



YOUR TRANSPLANT EVALUATION

- ***Viral screening*** for:
 - Hepatitis
 - HIV
 - Chickenpox
 - Herpes
 - Other viruses, such as syphilis and toxoplasmosis

Note: It is important to do this screening so that you receive needed care after transplant if you have any viruses.

PUGET SOUND BLOOD CENTER LABS



Panel of reactive antibodies (PRA):

- Helps match organ donors with organ recipients
- Blood typing is done twice for transplant listing (blood type A, blood type B)

AFTER YOUR EVALUATION

After the testing is done, you will:

- Meet with an infectious disease specialist and a heart surgeon. These doctors will go over the results of all your tests with you.
- Learn about the transplant process.
- Sign two forms: the ***Selection Criteria*** and ***Patient Acknowledgement*** forms.

By signing these forms, you are telling us that you understand what the transplant team expects from you before and after your transplant.



AFTER YOUR EVALUATION

Next, your heart doctor (*cardiologist*) will take information from your evaluation to the Selection Committee. This is a team of heart doctors, heart surgeons, nurse practitioners, nurses, social workers, pharmacists, and dietitians. Together, they will:

- Talk about your treatment options.
- May decide to list you for transplant, following United Network of Organ Sharing (UNOS) guidelines.

UNOS is a national organization that oversees all aspects of organ transplants in the U.S.

The next 2 slides describe different categories UNOS developed.

TRANSPLANT LISTING

UNOS listing categories:

- If you are **Status 1A**, you:
 - Are in the Intensive Care Unit.
 - Need IV medicine and close monitoring.
 - May have mechanical heart support for your failing heart.
- If you are **Status 1B**, you:
 - Are not in the Intensive Care Unit.
 - Need IV medicine or mechanical support for your failing heart 24 hours a day.



TRANSPLANT LISTING

UNOS listing categories:

- If you are **Status 2**, you take medicines by mouth at home to manage your heart disease.
- If you are **Status 7**, you have been inactivated on the transplant list because of:
 - Insurance issues.
 - Not following your treatment plan.
 - Another illness that does not allow you to have the transplant right now.



TRANSPLANT LISTING

If you are listed, it means:

- You have agreed to have a heart transplant.
- The Selection Committee has accepted you.
- Your insurance company has given approval for your transplant.
- Your name has been added to the national database for possible recipients of a new heart.
- You receive a letter saying you are listed.

TRANSPLANT LISTING

Once you are on the transplant list:

- You will be seen on a regular basis in the Heart Failure Clinic.
- Be sure to tell someone on your care team if you have any changes in your:
 - Social, emotional, or physical health
 - Insurance coverage

TRANSPLANT LISTING

Some reasons you may not be listed are because you:

- Have severe lung disease
- Have severe peripheral vascular disease
- Have advanced kidney or liver disease
- Have certain cancers
- Have chronic (ongoing) infections
- Are over 70 years old
- Are overweight or obese
- Smoke, or have alcohol or drug abuse problems

YOUR SURGERY

When you are called in for your transplant:

- Your coordinator will tell you where to go and what time to arrive.
- They will ask:
 - If you have any current infections
 - Other questions about your current health
- You may be asked to stop eating and drinking and to adjust certain medicine doses, such as insulin if you have diabetes

Note: Be sure to give us all of your contact numbers so that we can reach you. And, let us know if your numbers change!

YOUR SURGERY

Before your surgery:

- Members of your surgery team will talk with you and answers questions you and your family have.
- You will be asked to sign consent forms for the surgery, blood transfusions, and cardiac biopsies. Your signature on these forms tells us you understand the surgery and its risks, and gives us permission to give you blood transfusions and do tests on your heart tissue (biopsies).
- You will have lab work and a chest X-ray.
- Family members can stay with you until you go into the operating room.

YOUR SURGERY

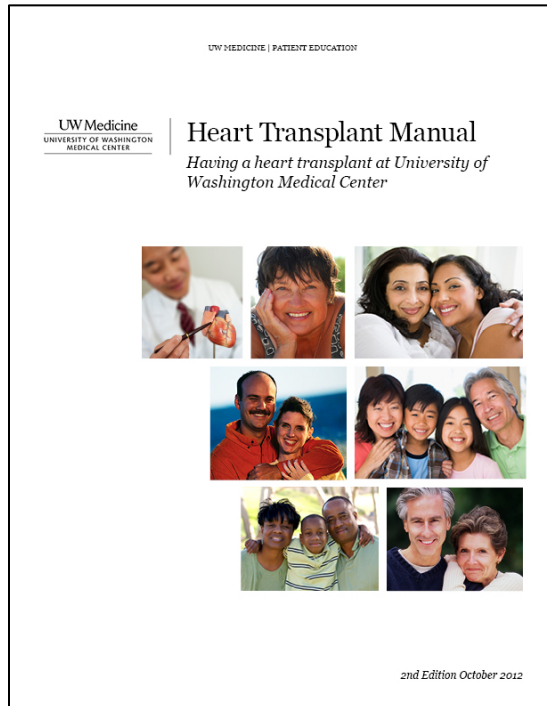
During your surgery:

- You will have **general anesthesia**. You will be asleep and will not feel pain.
- You will be on a machine that will breathe for you.
- A member of the surgery team will let your family know how things are going during your surgery.



YOUR SURGERY

When you come to the hospital, bring your:



- Heart Transplant Manual
- List of your current medicines and their doses
- Medicines from home, in case they are not available at the hospital
- Your insurance card or pharmacy insurance
- Personal items, such as reading glasses, cell phone, etc.

YOUR SURGERY

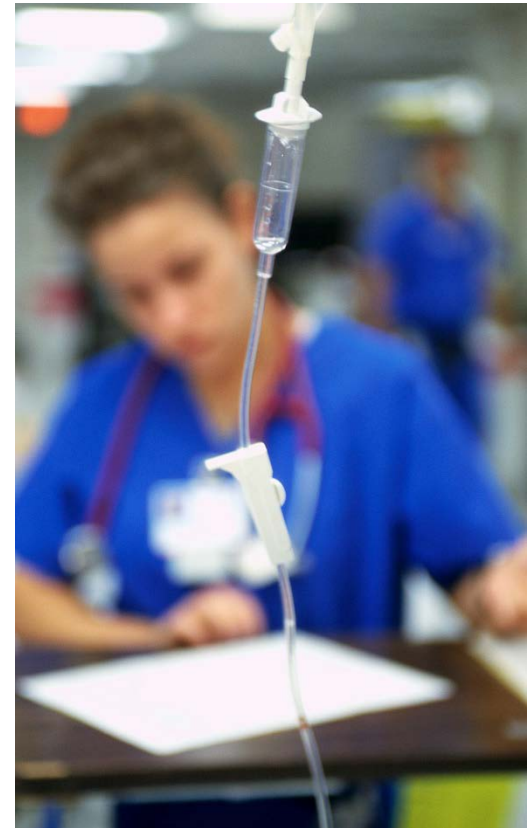
Right after your transplant surgery, you will:

- Be taken to the Intensive Care Unit (ICU). A breathing machine will help you breathe until you are awake and stable enough to breathe on your own.
- Have an incision in the middle of your chest with tubes draining fluid from the surgery area.

YOUR SURGERY

Right after your transplant surgery, while you are in the ICU:

- IVs will be in your arms and neck to monitor your new heart and your vital signs (heartbeat, breathing rate, temperature, and blood pressure). You will also receive medicine through an IV.
- You will have a tube to drain urine from your bladder, and compression stockings to squeeze your legs off and on to prevent blood clots.



RECOVERY

Once you are breathing on your own, you will be expected to:

- Get out of bed
- Do breathing exercises
- Learn the names, doses, and purposes of all your medicines
- Work with a dietitian
- Work with a physical therapist



RECOVERY

Before you go home, you must show that you know:

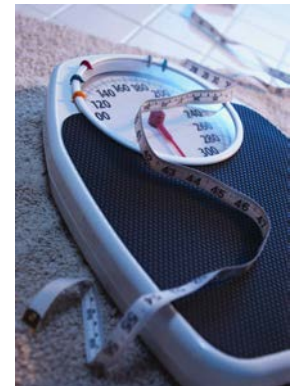
- Your medicines (names, doses, and what they do)
- What to do to prevent infection
- Your diet and exercise plan
- Emergency contact numbers for your transplant team



RECOVERY

Before you go home, you must have:

- All of your prescriptions filled
- A follow-up appointment schedule for biopsies, blood draws, and clinic visits
- Help at home, including someone who can bring you to your appointments and take you home
- Access to voice mail
- A blood pressure cuff, thermometer, and scale to use at home



RECOVERY

Early warning signs and complications include:

- Rejection
- Infection
- Medicine side effects
- Mood swings
- Memory loss
- Bleeding
- Irregular heartbeat
- Right heart failure
- Blood pressure that is too high or too low
- High blood sugars
- Kidney problems

REJECTION

What is rejection?

- Rejection is when your body sees your new heart as foreign and attacks it.
- Almost all episodes of rejection can be treated if they are found early.
- You will take medicines to prevent rejection for the rest of your life.

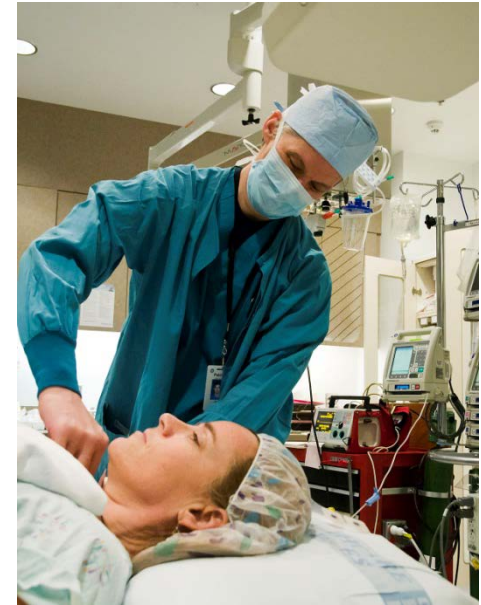
REJECTION

Signs of rejection include:

- Fever
- Fast or slow heart rate
- Changes in blood pressure
- Fatigue
- Shortness of breath
- Swollen ankles
- Weight gain

REJECTION

- To monitor rejection, you will have heart biopsies on a routine basis in the “Cath Lab” at UWMC after your transplant.
- The schedule for biopsies is:
 - Once a week for the first 4 weeks
 - Every other week for months 2 and 3
 - Once a month for months 4, 5, and 6
 - Every other month for months 7, 8, and 9
 - Once every 3 months from month 10 until 2 years
 - About once every 6 to 12 months after that



BIOPSY RESULTS

Your nurse coordinator will call you with your biopsy results the day after your biopsy, along with your anti-rejection drug levels. The transplant team may adjust your medicines based on these results.

These are the possible biopsy results:

- **NSR** = no significant rejection
- **Grade 1A** = mild rejection
- **Grade 1B** = mild to moderate rejection
- **Grade 2** = moderate rejection
- **Grade 3A** = severe rejection
- **Grade 3B** = very severe rejection
- **Grade 4** = widespread rejection

INFECTION PRECAUTIONS

Your anti-rejection medicines put you at higher risk for infection. But, all infections can be treated if they are found and treated early.

To prevent infection at the hospital:



- Wear a mask whenever you leave your room.
- Stay away from fresh flowers or living plants. (Visitors are not allowed to bring these to you.)

INFECTION PRECAUTIONS

To prevent infection at home:

- Wear a mask when you leave the house for the first 3 months, and any time you come to the hospital.
- Avoid being around people who are sick.
- Do not eat raw or undercooked fish or meat.
- Drink only pasteurized liquids (milk, juices, etc.).
- Wash your hands often.
- Call your transplant team if you have a low-grade temperature or any sign of infection such as redness or swelling.



SELF-CARE TIPS



- Take all of your medicines at the right times and at the right doses.
- Call your transplant team if you have side effects from your medicines.
- Call your transplant team if you have signs of rejection.
- Eat a healthy diet and stick to your exercise plan.
- Come to all of your clinic visits.

SELF-CARE TIPS

- Stay with insurance policies that have transplant coverage.
- Tell your family and friends how they can help you.
- Tell your transplant team when problems first occur. **Do NOT wait** for small problems to become emergencies!

