

## HEART TRANSPLANT REJECTION

### The Body's Defense System and Rejection

Your body's immune system helps protect you against infections such as bacteria, viruses, and fungi as well as other things that the body does not recognize as "your own".

**Your immune system:** helps to identify these harmful substances and fight to remove them from your body.

Because your new heart is identified as a "foreign object" by your immune system, the same protective defense mechanisms may actually damage your newly transplanted heart. This is called **REJECTION**.

**To help prevent your immune system from damaging your transplanted heart:**

- Your immune system must be "held down" or suppressed but not disabled.
- This is done with a combination of medications used to suppress your immune system. We call these "**anti-rejection medications**". You will be on more than one medication to suppress your immune system after transplant.
- Over time the body's response to your new heart typically decreases, however it never goes away. Although your anti-rejection medication doses will decrease over time, **you will take some form of anti-rejection for the rest of your life.**

### Signs and Symptoms of Rejection

Often times symptoms of rejection are vague and you may not have any symptoms. Early symptoms can include:

- Shortness of breath
- Palpitations
- Weight gain (1-2 pounds daily for multiple days)
- Increased or decreased blood pressure
- Generalized fatigue
- Nausea
- Low grade fever

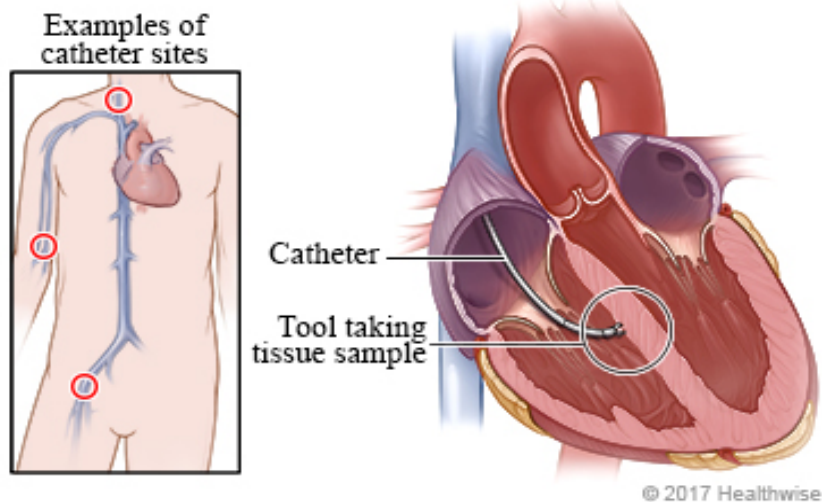
***It is important to note that these same symptoms may not indicate rejection but could indicate another health problem. Therefore, it is important to notify your transplant coordinator if you are having any of these symptoms.***

## Heart Biopsies

Heart biopsies help to look for evidence of rejection in your new heart. The procedure is performed at regular intervals during the first year after transplant. This is the time when rejection is most likely to occur. If you do have a rejection episode, you may require more frequent biopsies.

### Biopsy Procedure

- Biopsies are performed in the cardiac catheterization lab here at Strong Memorial Hospital.
- The procedure involves feeding a small catheter through a neck or groin vein. An instrument called a biopptome is passed through the catheter to the right side of your heart to collect a small sample of your heart muscle tissue.
- The procedure itself typically takes 30-45 minutes.
- The sample is sent to the lab for analysis. The biopsy samples are graded according to a scale for rejection.
- You will be awake during the procedure however, you will have the option to receive a medication to help relax you during your procedure. \* **Please note that if you DO receive sedation you will need someone to drive you home.**



## Heart Biopsy Results

Your biopsy results are typically available 1-2 days after your biopsy. Your transplant coordinator will contact you once he/she receives the results.

### What information will I learn from my results?

- Whether or not you have rejection
- The number and letter grade of the rejection, if any
- What, if any, treatment is planned
- Potential adjustments in your medications
- Potential admission to hospital if treatment requires IV medications

**Grading Rejection:** There are two scores assigned to each biopsy result.

Grade		Interpretation
0		No rejection
1a, 1b, 2	1R	Mild rejection
3a	2R	Moderate rejection
3b, 4	3R	Severe rejection

## Alternate Methods of Diagnosing Rejection

**HeartCare** is the combination of two different blood tests that provides a comprehensive assessment of graft rejection. This testing begins after 8 biopsies (week 12) and must be done at Strong Memorial Hospital. You will obtain a kit from the clinic during your visit and will then go up to the outpatient lab for blood draw.

You will receive your results in approximately one week. If the results are concerning for rejection, you will likely need to schedule a biopsy.

## Treating Rejection

Treatment for rejection, is determined by the results of your biopsy samples and the severity of rejection. These treatments may include:

- No change in your immunosuppression medication.
- Increase in your immunosuppression medication dose
- IV medication requiring hospitalization

**Do not panic if your biopsy results show rejection.** Low levels of rejection are often times not treated as they do not appear to impact the performance of the heart or have any long-term negative consequences. Remember that rejection can occur at any time and that rejection is treatable.

*Other treatments may be required for severe rejection requiring hospital admission*

## Preventing Rejection

- Always take all of your medications at the scheduled time
- Have an adequate supply of your medications
- Never change or skip a dose unless told to do so by your transplant coordinator
- Let your transplant coordinator know about medications started by other health care providers as they may interact with your anti-rejection medications
- Check your weight, blood pressure and temperature as advised by your transplant coordinator
- Have your lab work and other scheduled tests done on time
- Live a heart-healthy lifestyle, including regular exercise and a healthy diet