

Rejection

One of the complications you can develop after transplantation is rejection. It is natural to be anxious about it. You and your family will be constantly on guard for the signs of rejection. This section will help you understand what it is, how to prevent it, and how to treat it.

Rejection is not a disease; it is the normal reaction of the body to a foreign object. The part of the body that causes rejection is the immune system. The immune system consists mostly of white blood cells meant to destroy germs such as bacteria and viruses and help fight other diseases. The reaction of the body to unknown cells is known as an antigen-antibody reaction. Antibodies are proteins found in the blood that are always trying to protect you from any foreign invader. They are quick to try to destroy anything they don't recognize as part of "you."

This complicated part of the human immune system is very helpful in most situations, but it cannot tell the difference between "bad" cells such as the germs that cause the common cold and "good" cells such as a transplanted kidney. When a new kidney is placed in your body, the body sees the transplanted organ as a threat and tries to attack it.

Rejection Is An Antigen-Antibody Reaction

Rejection occurs when the immune system makes antibodies to try to destroy the new organ, not realizing that the transplanted kidney is beneficial. Before you received your new kidney, blood was drawn from you to determine your blood type and antibodies that may have already formed in your body. A cross-match test was done with the donor to see if your immune system would have an immediate reaction to the donor kidney. Knowing the results of these tests helps the doctors prevent immediate rejection of the kidney.

Rejection Can Be Acute or Chronic

Rejection that occurs in the first weeks to months after transplant is called acute. Acute rejection can be cellular or humoral. Cellular rejection is treated with IV (intravenous) medication; humoral rejection may be treated with plasmapheresis, in addition to anti-rejection medications. Acute rejection can develop anytime. To allow the donor organ to successfully live in your body, medications must be given to trick your immune system into accepting the transplant.

Chronic rejection occurs later after the transplant. It is common, develops more gradually and can continue for months or years. Preventing and treating acute rejection may reduce the possibility of chronic rejection.

Rejection, continued

Rejection Is Treatable With Anti-Rejection Medications (Immunosuppression)

Since rejection is caused by your immune system, we call methods to prevent it immunosuppression. Many of the medications given prevent this antigen-antibody reaction from occurring. You received powerful medications in your vein before and after surgery to help prevent rejection. You are on a medication plan specifically suited to your needs. The transplant team may prescribe different immunosuppressive combinations and dosages at various times. The ideal goal of an individual medication plan is to hold back organ rejection while reducing drug toxicity and the risk for infection. (See the section on **Medications** for more information on this subject.)

Unfortunately, at this time there are no methods to suppress your body's response to a foreign organ without also impairing its response to infections/cancer. Preventing and monitoring infection becomes important when your immune system is suppressed. (See the section on **Infections** for more information.)

Recognizing Rejection As Soon As Possible Is Very Important

Episodes of rejection can occur at random times following surgery and are most frequent within the first few weeks or months after surgery. There is no one laboratory test or symptom to definitely detect rejection. The

microscopic examination of tissue obtained by a kidney biopsy is the only reliable method available to diagnose if rejection is developing or decreasing. (See the **Testing** section for more information.)

Do not miss lab appointments or checkups. Measuring medication blood levels ensures that you are taking the right dose of medication. This is key to prevention of rejection.

Know And Report The Symptoms Of Rejection

Following are the most common symptoms of rejection. Remember, each person may experience symptoms differently. It is important to recognize these symptoms and report them immediately.

Symptoms may include any or all of the following:

- Temperature of 100.5°F or higher
- Elevated BUN & creatinine (lab test results of your kidney function)
- Swelling, tenderness at transplant site
- Blood in urine
- Decreased urine output
- Increased weight or swelling
- Flu-like symptoms – chills, aches, headache, dizziness, nausea or vomiting
- No symptoms at all

Rejection, continued

You may notice that many of these symptoms are the same as those you experienced before your kidney transplant. It does not mean your new kidney will fail; it just means you need to get medical attention immediately.

Also remember that other minor illnesses can get worse and lead to rejection, so don't ignore these. It is always best to call the transplant office and get advice from the transplant coordinator if you have any change in condition.

Rejection Treatment Works Best When Begun Early

Each rejection episode can harm your transplanted kidney. The sooner the treatment is started, the less damage that occurs. Treatment of rejection may include being hospitalized. Treatment is usually started with high doses of steroids intravenously for 3-5 days. Thymoglobulin may then be added for an additional 7-14 days. These medications are potent immunosuppressive agents with the function of removing the cells from the kidney that are attacking and causing the rejection episode. A follow-up biopsy is sometimes done to assess the success of the treatment.

Rejection may be treated with a treatment called plasmapheresis. The Red Cross does this treatment, using a machine that filters the antibodies out of your blood.

You should not think of rejection as untreatable. With early detection and good medical care, a rejection episode will likely be brought under control. By putting all this information to use, you will be ready to handle this complication.

In Summary

- Rejection is not uncommon and is usually treatable.
- Take all medications as instructed to avoid rejection. If doses are routinely missed, rejection is sure to happen – it is just a matter of when!
- You play the most important part in your healthcare plan – stay calm, stay healthy and keep in close touch with the transplant team.