

Section 5

**BE AWARE
TAKE CARE**

Post-transplant Complications

Rejection of the Kidney

What is rejection of the kidney?

This occurs when your immune system attacks your new organ because it sees it as foreign. This is a normal and natural reaction. Still, it can happen at any time though it is not common. Your anti-rejection medication helps prevent this.

What are the signs of rejection?

- Decreased kidney function seen in blood test (high BUN and Creatinine)
- Tenderness or pain over transplanted kidney
- Sudden decrease in urine output
- Sudden weight gain greater than two lbs. or more in 24 hours
- New swelling in legs and feet
- Even if you have no symptoms you can still have rejection. **This is why it is important to have regular blood tests done.**

Rejection DOES NOT mean that you will lose your new kidney. There are medicines to prevent and treat rejection.

**IF NOT TREATED,
YOUR KIDNEY WILL NOT SURVIVE.**



What are the medicines used to treat and/or prevent rejection?

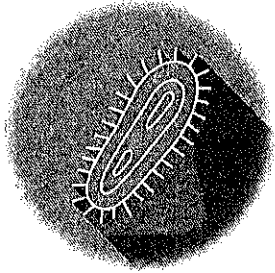
The medicines used to treat rejection are similar to the ones received after transplant and are usually given through an IV. Depending on the type of rejection, you may receive more than one medication for several days.

If my body rejects my new kidney, what medicines and tests will the doctor order?

- Blood work
- Kidney biopsy
- Imaging

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Rejection of the Kidney & Infection



Drugs that prevent rejection also raise the risk of infection.

Your biggest risk for infection is during the first couple of months after transplant but can happen anytime.

Learn the signs of infection and call the transplant coordinator right away if you experience the following:

- Temperature greater than 100.5 degrees
- Flu-like symptoms: chills, aches, no energy, headache, nausea or throwing up
- Cough or shortness of breath
- Sore throat or pain in your ears
- Diarrhea greater than 5 times in a day
- Drainage from a wound, sore that won't heal or is red and warm to the touch
- White or gray film or patches on the tongue or mouth
- Decreased hunger
- Burning or increase in the number of times you urinate, or feeling you have to urinate even though you just did

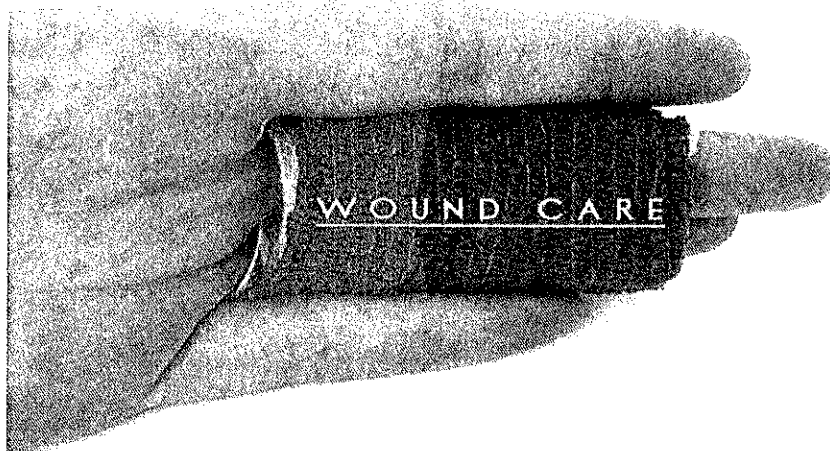
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Wound Infections

What are wound infections?

Surgical wounds can become infected by bacteria already on your skin or by touching the wound without washing your hands.

If you have diabetes, you are at higher risk of having wound infections.

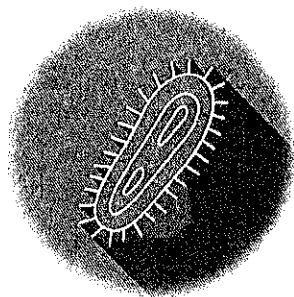


Signs of a surgical wound infection:

- Redness
- Slow Healing
- Pain
- Fever greater than 100.5 degrees
- Warmth at the operation site
- Swelling
- Yellow pus
- Bad smell



CMV Infection



CMV belongs to a group of viruses called herpes viruses. Once they infect a person, he or she stays infected for life. For most healthy adults, CMV has no symptoms.

For transplant patients, this virus can become very serious because the body's defenses are lowered by the antirejection medications.

You will take medication to prevent CMV infection the first few months after transplant. This is called Valcyte or Valgancyclovir.



What are the symptoms of CMV?

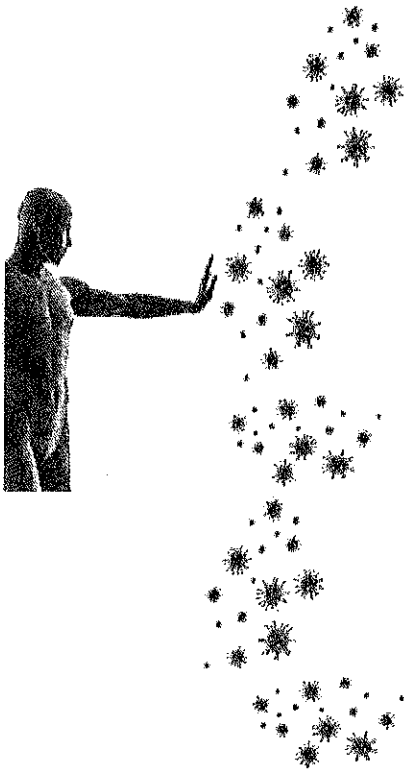
- Temperature greater than 100.5 degrees
- Enlarged lymph nodes
- Diarrhea greater than 5 times in a day
- Chest congestion and cough
- CMV infection that is not taken care of can lead to serious sickness and loss of your transplanted kidney.

How do I get CMV?

CMV is very common. In fact, 80% of the general population have been exposed to CMV already. CMV infection can occur when you are in contact with body fluids like blood, saliva, breast milk, semen, vaginal fluids or someone who has the virus. In some cases it can happen after blood transfusion or from the transplanted organ.



How do I prevent infection?



- Wash your hands for at least 30 seconds with soap and water often
- Stay away from people with colds and crowded areas
- DO NOT share personal items like a toothbrushes, razors, spoons, forks, and drinks
- Avoid kissing friends or relatives on the mouth
- Take your medications as directed by your healthcare provider
- Visit your dentist regularly and practice good mouth care
- Do not change kitty litter, fish tank water, bird cages, or touch any pet's urine or feces

It is a good idea to carry hand wipes or hand sanitizer (which do not require water) with you in case you are not near a facility.

What are the medicines used to treat and/or prevent infections?

- Antibiotic medicines for bacterial infections
- Antifungal medicines for fungal infections
- Antiviral medicines for viral infections

What are the tests that the doctor may order if they suspect an infection?

- Lab work
- Blood cultures
- Urine cultures
- Imaging studies



Diabetes

Diabetes occurs when your body cannot make enough insulin or when your body cannot use insulin effectively. Some antirejection medicines can raise blood sugar and can cause diabetes if left untreated.

Important
Information

It is important to maintain normal blood sugar levels. Elevated blood sugar can cause problems for the brain, heart, feet, eyes, kidneys and nerves.

What are your blood sugar level targets?

Before meal sugar level: 90-120 mg/dL

2 hour after-meal blood sugar: less than 180 mg/dL

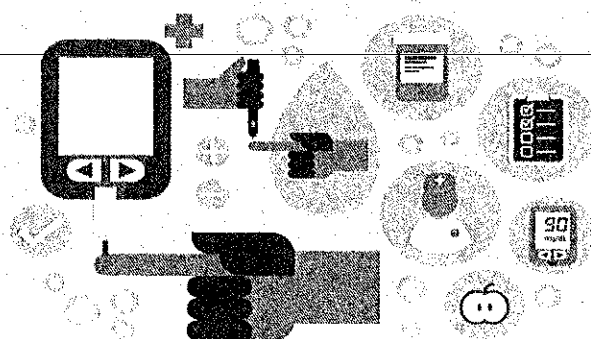
RECORD YOUR BLOOD SUGAR LEVELS IN YOUR DAILY LOG AND BRING YOUR LOG TO YOUR APPOINTMENTS.

YOU MUST MAKE AN APPOINTMENT WITH YOUR ENDOCRINOLOGIST OR PCP TO MANAGE THIS.

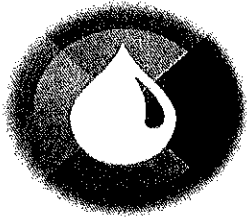
Monitoring Your Blood Sugar Levels

You should check your blood sugar levels:

- Before meals
- At Bedtime
- Anytime you experience signs and symptoms of low blood sugar



Diabetes



High Blood Sugar

Low Blood Sugar

What is it?

High blood sugar refers to fasting sugar levels greater than 126 mg/dL. If you notice high blood sugar levels contact your diabetes physician.

Low blood sugar is when sugar levels are less than 70 mg/dL.

Signs and symptoms:

- Fatigue / feeling tired
- Thirst
- Nausea
- Frequent urination
- Blurred vision
- Weight loss

- Sweating
- Headache, dizziness
- Hunger
- Shaking
- Nervousness
- Palpitations
- Faintness

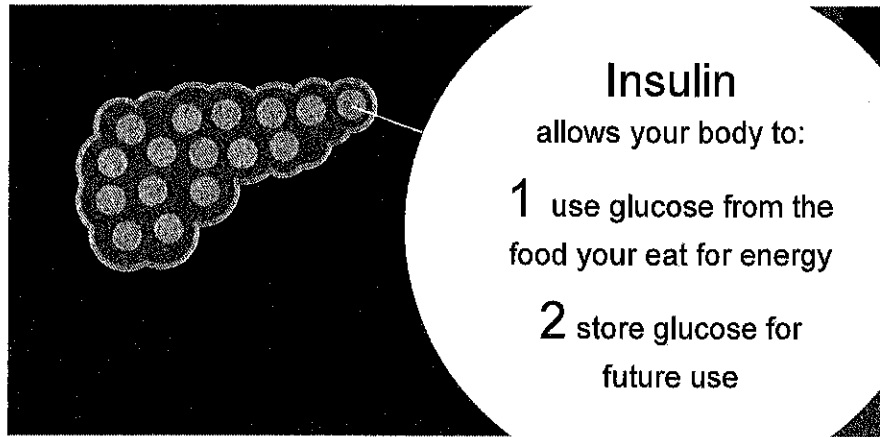
It is important that you also recognize when your sugar is too high or low and take immediate action.

Treatment for all blood sugar levels less than 70 mg/dL requires the following:

1. Drink 4 ounces juice
2. Wait 15 minutes
3. Recheck blood sugar level
4. If blood sugar level is less than 70 md/dL, repeat steps 1-3



Diabetes



Special things you should know about taking insulin:

It is important to check and write down your blood sugar levels before meals and at bedtime to make sure your insulin regimen is working.

- Take your insulin as ordered. Make sure you follow up with your PCP or endocrinologist regularly for management and talk to them if you have any concerns.
- Rotate your insulin injection sites. You can inject insulin in your stomach, in the back of your arms or in your thighs.
- Always carry quick-acting sugar with you such as 5 to 6 hard candies that

Urinary Complications

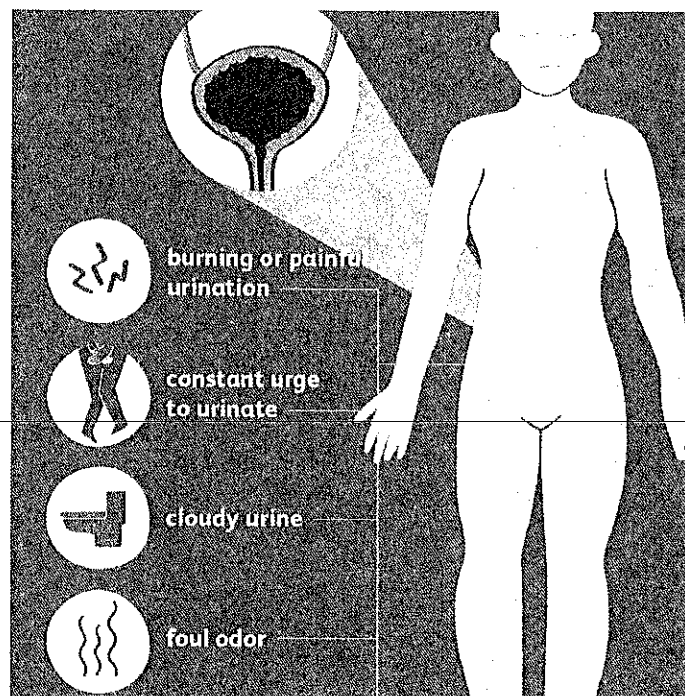
Urinary Tract Infection (UTI)

Any infections in your urine usually indicates a “bladder infection” and often are called a urinary tract infection or UTI. Urinary tract infections are more common in women and in patients who don’t empty their bladder completely. It is important to know the symptoms because if not taken care of it can lead to serious illness and loss of the transplanted kidney.

Symptoms of UTI:

- Burning during urination
- Frequent need to urinate
- Fever great than 100.5 degrees
- Cloudy urine

Routinely, you will have a urine culture done when you come in for your follow-up blood work. If you have burning when you urinate (pass your urine) or if you are urinating very frequently, let the transplant coordinator know right away.



Urinary Complications

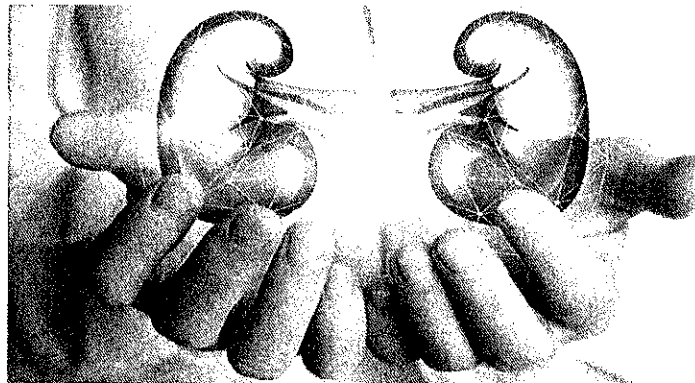
Urine Leak

The ureter is a tube that drains urine from your transplanted kidney to the bladder. Sometimes the ureter can pull away from the bladder causing the urine to leak out. The only cure for this problem is an operation to reconnect the ureter. This is the reason why you must keep a urinary catheter in place for a number of days after surgery.

It is important you keep the catheter as long as your doctor says.

Symptoms of Urine Leak

- Sudden inability to pass urine
- Belly pain while urinating



Fluid Collection

There are times when fluid can gather around the transplanted kidney. This can be due to a pooling of fluid or blood. Most of the time the body gets rid of this fluid, but other times it can put pressure on the kidney and it may need to be drained. The fluid is drained by placing a catheter under the skin.

Symptoms of a Fluid Collection:

- Changes in amount of urine you make
- Swelling in the legs or belly
- Pain or pressure around the kidney



Urinary Complications

Delayed Kidney Function

In most cases, the transplanted kidney begins to make urine right away. Sometimes the kidney is “sleepy” and it may take a few days to weeks to work. If this happens, dialysis may be needed for a short period of time. This does not mean the transplant is not working. Most “sleepy” kidneys start working normally within days to weeks after transplant.

Narrowing of an Artery

There are times when the main blood vessel of the kidney gets narrow, making it difficult for the kidney to get good blood flow. Normally, there are no symptoms and urine is passed without difficulty even though kidney function fails. This condition is usually found during routine blood test. You may also have an increase in blood pressure that does not get better with medication. To fix this you may need a small procedure to open the blood vessel.

Care & Maintenance of Indwelling Urinary catheters at home:

- Wash your hands thoroughly with soap and water.
- Use mild soap and water to clean your genital area.
- Men should retract the foreskin, if needed, and clean the area, including the penis.
- Women should separate the labia, and clean the area from front to back.
- Clean your urinary opening, which is where the catheter enters your body.
- Start by cleaning the catheter from where it enters your body and then down the catheter, away from your body. Make sure to hold the catheter close to where it enters your body, so that you don't put tension on it.
- Rinse the area well and dry it gently.
- Do not take tub baths.

PCP Pneumonia

What is PCP Pneumonia?

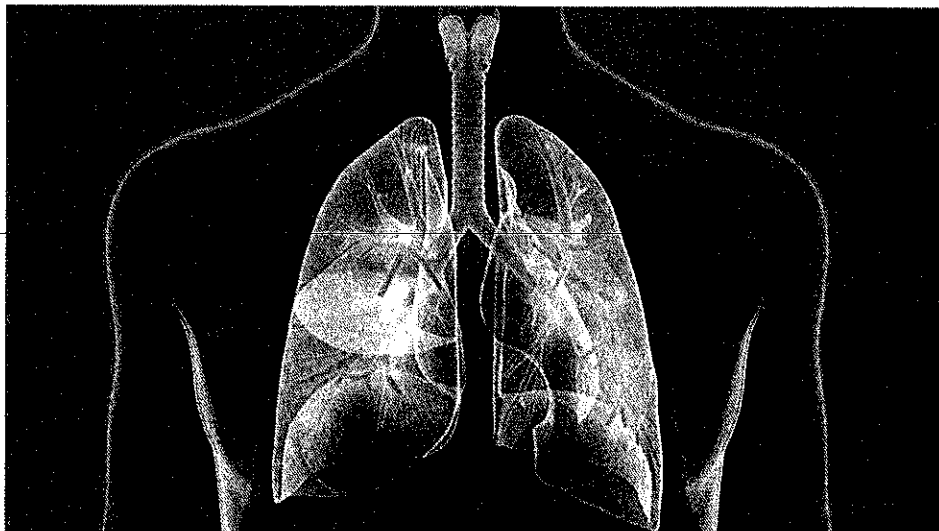
This is a serious infection that causes inflammation and liquid to go into the lungs. The infection is caused by a fungus spread through the air and affects those with a weakened immune system.

Symptoms of PCP Pneumonia

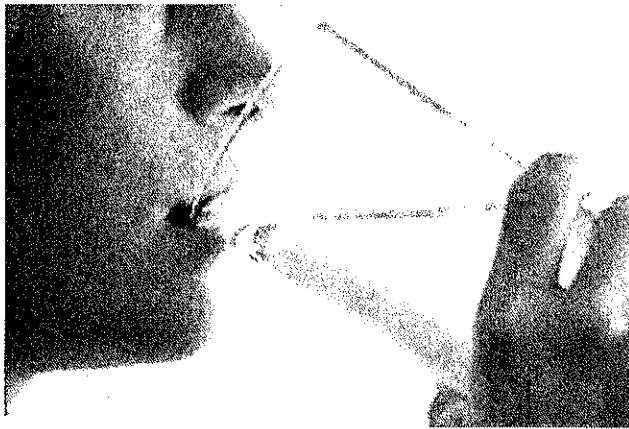
- Fevers greater than 100.5 degrees
- Night sweats
- Weight loss
- Shortness of breath
- Dizziness



You will need to take an antibiotic 3 times per week for prevention of this type of infection. This is called Bactrim or sulfamexazole - trimethoprim.



Dehydration



Your new kidney makes a lot of urine. It is important to drink enough fluids to avoid dehydration which can damage to the kidney. You will be asked to drink between 2-3 liters of fluids and keep track of your intake and output.

Symptoms of Dehydration:

- Thirst
- Dry skin
- Dizziness
- Feeling light-headed
- Dark urine
- Decreased urine output
- Headache
- Weight loss

Only 1 in 4 adults in the US is properly hydrated



Thrush

Thrush is caused by too much yeast in the mouth, tongue, and throat. Oral thrush can occur when your immune system is weakened by certain medications such as antibiotics or steroids.

You will be asked to rinse your mouth and swallow with antifungal mouthwash to stop this infection from happening if you are prescribed steroids.

Symptoms of Thrush:

- Creamy white bumps on the tongue, inner cheeks, gums or tonsils
- Slight bleeding when the bumps are scraped
- Pain at the site of the bumps

