Liver Transplant and Kidney Function

What are kidneys and what do they do?
There are two kidneys in our bodies. They are bean shaped organs about the size of the fist. One lies on each side of the spine just below the rib cage. The kidneys:
- Make sure the body has the right amount of water, minerals, and acids.
- Remove waste products from the body through urine.
- Help make red blood cells.
- Help to control blood pressure.
- Release hormones to keep bones strong.
- House the adrenal glands which sit on top of the kidneys. These glands serve an important role with hormones, especially the production of natural steroids and hormones needed for fluid and salt balance in the body.

What causes kidneys not to work?
There are many things that can cause the kidneys not to work well.
- Age – as we get older, kidney function declines
- Chronic diseases such as diabetes and high blood pressure damage the kidneys
- Diseases that cause failure in other organs, such as the heart or liver can hurt the kidneys
- Dehydration or poor blood flow
- Kidney stones
- Urinary tract infections
- Medicines or drugs-The medication you take to prevent your body from rejecting your new organ can be hard on the kidneys. We need to monitor your blood work closely to make sure you are not getting too much of this medicine. Also, some pain medicine like ibuprofen (Advil) and aspirin are hard on the kidneys.
- Smoking

Can I tell if my kidneys are damaged?
You will often not have signs or symptoms of kidney damage until the damage is severe. Your transplant team and other doctors can detect kidney damage through blood and urine tests. The blood test used to check for kidney damage is creatinine. We will also check a urine specimen at clinic visits for early detection of changes in your kidney function.
When the kidneys aren’t working well waste products build up in your body and make you feel sick. You can get swelling in your arms and legs (edema). You may not be able to make enough red blood cells, causing you to become anemic. You may develop high blood pressure. Your bones may become weak.
Can kidney damage be treated?
Yes! This most often involves treating the cause of the kidney damage. For example, doctors can treat kidney stones and urinary tract infections to help prevent them from causing serious or permanent kidney damage. Using medicines to control blood pressures and keep blood sugars in normal ranges can greatly impact long-term kidney function. If medicines are causing kidney damage doctors can often switch to different medicines or lower doses to protect the kidneys.

When the kidneys become permanently damaged, patients need dialysis or kidney transplant to restore the functions of the kidneys.

Are there things I can do to prevent kidney damage?
Yes! There are many things you can do to help prevent kidney damage:

- Have blood and urine tests done on a routine basis: This will help your transplant team and other doctors check for kidney damage early so they can treat it.
- Avoid dehydration: Good fluid intake is important. Remember, fluids that have caffeine or alcohol will dehydrate you more! If you are losing a lot of fluid through nausea, vomiting, or diarrhea, notify your transplant team. You may need to get fluids through an IV to prevent dehydration. You should drink at least 8 glasses of water each day and more if you exercise or if it is hot outside.
- Check your blood pressure daily and tell your transplant team and your local doctors if it is high (a goal blood pressure is less than 130 on top and less than 80 on the bottom). High blood pressure (over 130/80) can cause kidney damage.
- If you are diabetic, check your blood sugars regularly. Notify your local doctors and your transplant team if your blood sugars are not in the goal range (70 to 150).
- Avoid medicines that are toxic to the kidneys such as ibuprofen (Advil®) and Alleve®, etc.
- Stop smoking.
- Tell your transplant team about any medicines, including those over-the-counter and those prescribed by other doctors, that you are taking. Some of these medicines may cause kidney damage and you may need to avoid them.
- See your transplant team and other doctors regularly. These routine visits allow your doctors to watch for signs of kidney damage and review medicines you are taking that may be causing kidney damage. Over time, they may be able to decrease doses of the medicines that are used to prevent rejection that may cause kidney damage.

Having an organ transplant is a lifelong commitment. Along with keeping your new organ working, patients must take steps to avoid damage to other organs in their bodies, such as their kidneys. Members of your transplant team are available to assist with keeping you healthy and help you maintain a normal, active life.

Your health care team may have given you this information as part of your care. If so, please use it and call if you have any questions. If this information was not given to you as part of your care, please check with your doctor. This is not medical advice. This is not to be used for diagnosis or treatment of any medical condition. Because each person’s health needs are different, you should talk with your doctor or others on your health care team when using this information. If you have an emergency, please call 911. Copyright © 3/2016. University of Wisconsin Hospital and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#6793.