

## Lupus and kidney disease

### What does kidney disease have to do with lupus?

People with lupus are much more likely to have kidney disease than people who don't have lupus. The kidneys are the organs that make urine. Kidneys filter the blood by putting the waste products into the urine where they can leave the body. Kidney disease can cause blood and protein in the urine, swelling of the body, high blood pressure, and other symptoms.

"**Lupus nephritis**" is the medical name for a type of kidney disease in people with lupus. People who have lupus can also get kidney disease caused by other problems. For example, if someone with lupus also has diabetes, the diabetes might be the cause of kidney problems. The way we find out is by doing a kidney biopsy.

### Types of Lupus Nephritis:

There are several types or "classes" of lupus nephritis. They range from Class I to Class 6:

Class 1 disease is mild,  
Classes 2 and 5 are moderate  
Classes 3 and 4 are aggressive,  
Class 6 indicates severe non-reversible disease.

### What are the symptoms of lupus nephritis?

**Foamy Urine-** This is often one of the first signs of lupus nephritis

**Blood in the Urine-** This is also often one of the first signs of lupus nephritis

**Swelling-** Usually in the legs, feet, or ankles and less often in the hands or face. This tends to worsen as the day progresses or after sitting (this is called edema)

**High Blood Pressure**

**Changes in Frequency of Urination-** Either much more or much less

**Vomiting-** Toxins that build up because the kidney is unable to remove them from the body can result in abnormal function of the liver and the process of digestion.

**Water Retention/Weight Gain-** the entire body may seem bloated and firm, often affecting the legs and hands more than other parts of the body. The kidneys are not able to remove the extra water which is present in the blood of the person affected.

### Is there a test for lupus nephritis?

Yes. If you have lupus, your doctor or nurse will do regular blood and urine tests to check for signs of lupus nephritis. You might also have a test called a "biopsy." In this test, a doctor takes a small sample of kidney tissue. It is not a surgery, it is a very simple procedure. Your doctor will give you more details about the biopsy if they think you need one. Another doctor looks at the sample under a microscope to check for kidney disease.

### How is lupus nephritis treated?

Medicines are usually the first treatment for lupus nephritis. These include:

- Immunosuppression or "anti-immune" medicines: These are medications that calm down the overactive immune system, so it stops attacking and damaging the kidneys. These are often similar to drugs used to treat cancer or drugs that help prevent the rejection of transplanted organs. These medications can include: **cyclophosphamide (Cytoxan), azathioprine (Imuran) and mycophenolate (Cellcept)**. These are medicines which attempt to slow down the immune system which cause damage in the kidneys. **Corticosteroids (prednisone)** also reduce inflammation caused by lupus. **Hydroxychloroquine (Plaquenil)** is a common medicine for lupus and lupus nephritis. It

was created to fight malaria, but also works to fight lupus. **Diuretics (Lasix or furosemide, HCTZ or hydrochlorothiazide)** which help remove extra fluid from the body may also be prescribed to help with high blood pressure or swelling. **Lisinopril or enalapril** are **ACE-inhibitors**, drugs which can help with high blood pressure and can help prevent further kidney damage from lupus nephritis.

Severe lupus nephritis can make the kidneys stop working. This is also called kidney failure. Sometimes this is temporary, but sometimes it is permanent. If this happens, treatment choices are:

- **Hemodialysis, often called "dialysis"** – A machine filters your blood several days per week to take the place of what the kidneys usually do.
- **Peritoneal dialysis** – Dialysis that occurs in your stomach. Special dialysis fluid goes into and out of your stomach many times overnight to clean waste products from your body.
- **Kidney transplant** – Doctors replace your kidneys with a healthy kidney from a living or deceased donor. People only need one working kidney to live, so they can sometimes donate a kidney to someone else.

### **What if I want to get pregnant?**

Getting pregnant when you have lupus nephritis can be risky. It can increase the chance that the unborn baby will die before birth. Being pregnant can also make lupus nephritis worse. This is not to say that it can't be done! It's just important to understand the risks.

If you want to get pregnant, talk to your doctor or nurse **before** you start trying to get pregnant. Some of the medications like ACE inhibitors or certain immunosuppression medications can cause serious birth defects. You should stop taking them before you start trying to get pregnant, and start taking other medications in their place. Don't try to do this yourself--ask your doctor to help! There are ways to reduce the chances of having problems. Your doctor can work with you to try to make pregnancy safer for you and your developing baby.

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