



Kidney Biopsy Patient Information

What is a Kidney Biopsy? A kidney biopsy is a procedure in which a sample of kidney tissue is obtained. Microscopic examination of the tissue can provide information helpful in diagnosing and treating certain kidney disorders.

When is a Kidney Biopsy Performed? The cause of acute kidney injury or chronic kidney disease can often be determined without a kidney biopsy. Biopsy is performed in those instances when the cause is uncertain. It helps establish the diagnosis and provides valuable information both on prognosis and management. Clinical settings in which a kidney biopsy is performed include: blood in the urine, high or increasing levels of protein in urine, acute kidney injury, progressive chronic kidney disease, or monitoring response to therapy for autoimmune kidney disease.

How is the Kidney Biopsy Performed? Kidney biopsies are usually performed with local anesthesia to minimize pain while the patient is awake. In order to visualize the needle as it enters the body, the doctor uses either ultrasound or a CT scan to track the needle location. The doctor inserts a needle through the skin of the person's back and reaches the kidney. One or two small samples of kidney tissue are obtained and sent to the lab for processing.

Contraindications to a Kidney Biopsy - Kidney biopsy is generally contraindicated in patients who have one or more of the conditions listed below. Alternatives to percutaneous biopsy such as open or trans-jugular biopsy may be used for patients with these conditions who absolutely require biopsy.

- An uncorrectable bleeding condition
- Small kidneys
- Severe hypertension uncontrolled despite medications
- Multiple bilateral kidney cysts or kidney tumor
- Hydronephrosis - swelling of the kidney
- Active infection
- An uncooperative patient
- Solitary single kidney

Can Complications Occur as a Result of the Biopsy? Serious complications of a kidney biopsy are quite rare. Patients are monitored very closely for a number of hours after a biopsy to ensure that any potential complications can be detected early in the recovery period. Complications that can result from a kidney biopsy include bleeding, pain, and infection.

- ▶ Bleeding - Rarely is bleeding severe enough to require a blood transfusion or surgery. It has been estimated from reviews of the medical literature that surgery is required to control bleeding in 0.1 to 0.4 (1 to 4 per 1000) with removal of the kidney required in approximately 0.06% (6 per 10,000). Most patients experience no bleeding; some see drops of blood in their urine the day of their biopsy but will disappear within 48 hours



Can Complications Occur as a Result of the Biopsy? *CONTINUED*

- ▶ Pain - Because the biopsy involves putting a needle through the muscles of your back to reach the kidney, there is often residual muscle soreness that lasts 1-2 days after and is treated with over-the-counter Tylenol.
Severe pain is an uncommon complication. Pain lasting more than 12 hours occurs in approximately 4 percent of biopsies.
- ▶ Urinary Tract infection - Urinary tract infection is rare and should not occur after renal biopsy unless the patient has an active infection prior to the biopsy.
- ▶ Damage to kidney – Rare. The reason the doctor uses ultrasound or CT scan to visualize the kidney during biopsy is to minimize the chance of damage.

Patient Instructions

1. Stop aspirin and all non-steroidal anti-inflammatory pain medication for 7 days prior to biopsy
2. If you take Coumadin, Plavix, Pradaxa, Eliquis, or Xarelto – discuss this with your doctor
3. Avoid eating or drinking a heavy meal after midnight on the day of the planned biopsy
4. Wear comfortable, loose-fitting clothes
5. On the morning of the biopsy - take **ALL regular blood pressure medications**
6. **You will need to have someone drive you to and from the hospital for the biopsy.** Expect to be there about 8-10 hours. You may remain in hospital overnight for observation.
7. You should remain flat on your back for 4-6 hours and it is suggested for bed rest at home for the first 24 hours after biopsy. You should avoid lifting more than a gallon of milk the first 24 hours and should avoid heavy lifting, exertion and sexual activity for 2 weeks after the biopsy.
8. Call the office if you experience any of the following signs after your biopsy: blood urine that persists for more than 48 hours, swelling or pain at the biopsy site that persist or worsens for >24 hours, redness at the biopsy site, fever, dizziness, or low blood pressure.

Where to get more Information:

A number of other sites on the internet have information about kidney biopsy. Included are a few of the most reliable sources:

- National Library of Medicine
(www.nlm.nih.gov/medlineplus/ency/article/003907.htm)
- National Institute of Diabetes and Digestive and Kidney Diseases
(<http://kidney.niddk.nih.gov/kudiseases/pubs/biopsy/>)
- National Kidney Foundation
(www.kidney.org)