Ultrasound-Guided Kidney Biopsy

What is kidney biopsy?
Kidney biopsy is a procedure that removes a small piece of the kidney. It is then examined under a microscope to help your kidney doctor figure out the cause of the kidney disease. Results of the biopsy often take about 7 days.

Why do you need a kidney biopsy?
Kidney biopsy helps to figure out the cause of kidney disease. It also shows us how much scarring is in the kidney and how much of the kidney disease is reversible. Kidney biopsy is often needed:

- If you have protein in the urine
- If you have blood in the urine
- If your kidneys are not removing toxins as they should from the blood

How to Prepare at Home

- **Do not eat or drink** after midnight the night before the procedure.
- **Medicines:**
  - Blood thinners such as Coumadin® (warfarin), heparin, Plavix, Pradaxa, apixiban or low molecular heparin injections such as Fragmin or Lovenox: Do not take these medicines for **7 days** before the kidney biopsy.
  - Please do not take NSAIDS such as ibuprofen, naproxen, Motrin, Aleve, aspirin or aspirin-containing products and fish oil for **7 days** before the biopsy.
  - You may take other prescription medicines with a small sip of water. This includes blood pressure medicines.
  - If you have any questions, please call the Kidney Clinic at (608) 270-5656.

- **If you have diabetes, please call your doctor to discuss how your medicine doses should change.**
  - Test your blood sugar more often when you are not eating before the procedure.
  - If your blood sugar level is low (less than 70 mg/dl) or you have symptoms, eat some glucose tablets or drink 4 ounces of a clear liquid with sugar. Always recheck your blood sugar level to make sure it stays above 70 mg/dL.
  - We may still be able to do the procedure unless you need to eat solid food to keep your blood sugar at a normal level.
  - If the blood sugar ever gets too high or too low and you can’t bring it back to normal, call your local doctor or diabetes doctor.

What to Expect on the Day of the Biopsy

- **Check-in** at the UW Hospital Patient Admissions Office about **3 hours before** your procedure. This will allow us time to prepare you for your biopsy. Our doctors will explain what will happen, answer any questions, and ask you to sign a consent form.
- You will get an IV and have blood tests done. These tests are to make sure your blood is not too thin and it is safe to do the biopsy.
- Your blood pressure will be checked. It should be below 140/90 to do the procedure safely. This is why you need to take your blood pressure medicines as prescribed.
During the Biopsy

- **You will be awake.** You may be given medicines to help you relax if you are anxious.
- You will be taken to Radiology department. We will look at your kidneys using ultrasound. You will be lying on your belly and the doctor will mark the area for biopsy.
- Local anesthetic (numbing medicine) is used at the site of the biopsy. The doctor will use ultrasound when doing the biopsy to avoid big blood vessels in the kidney.
- Doctors will take a small piece of tissue out of the kidney. You will have to hold your breath when the needle is inserted in the kidney. They will repeat this 2 or 3 times to get enough tissue sample.
- You might feel some discomfort in your back after the local numbing medicine wears off. Let your nurse know and s/he can give you something to control pain.
- Your doctor will check your blood counts 4 hours and 8 hours after the biopsy to make sure they are stable.
- You will go home the next morning if your blood counts are stable and you are feeling well.
- Continue to avoid all blood thinners. **Ask your doctor when you can restart blood thinners.** Restart all of your other medicines.

At Home

- You may eat or drink what you like once you arrive home. Do not drink alcohol for the first 24 hours.
- Rest and take it easy for the first 24 hours. Do not lift more than 10 pounds during this time. Resume your normal routine after 24 hours.
- You may remove the bandage over the site the next morning.
- You may shower after 24 hours.

Risks of Biopsy

- **Bleeding:** You may have blood in your urine after the biopsy. This is because kidneys get a lot of blood to filter. Rarely the bleeding might be severe and you might need a blood transfusion. Very rarely you might need a procedure to stop the bleeding.
- **Pain:** Usually it is mild and does get better within 24 hours after the biopsy.

After the Biopsy

- After your biopsy, you should expect to be admitted to UW Hospital overnight for observation.
- You will go back to your hospital room and will be able to eat.
- You must stay in bed for 4 hours after the biopsy. The nurse will check your blood pressure and pulse during this time to make sure they are stable.
When to Call the Doctor
Call if you have any other questions or concerns, or if:

- You have more than a teaspoon of bleeding at the site.
- You feel dizzy, faint, or light-headed.
- Your pain around the site gets worse rather than better 2-3 days later.
- Severe back pain
- You are not feeling well (including nausea, vomiting, or chills) and have a fever greater than 100.4°F (38°C).
- Blood clots or blood in your urine that is getting worse after 2 days.

Phone Numbers
- During the day (8:30am – 5:00pm), call the Kidney Clinic (608) 270-5656.
- Evenings and weekends: call your local doctor or go to your local emergency room.

After the biopsy
- Rest and take it easy for the first 24 hours.
- Continue to avoid all blood thinners. Ask your doctor when you can restart them.
- Restart all of your other medicines.
- Call your doctor if you:
  - have trouble passing urine,
  - see blood clots in urine,
  - have severe back pain, or
  - are lightheaded or dizzy.
- Do not forget to ask the results of kidney biopsy (usually takes about 7 days).

Key Points
Before the biopsy
- Ask your doctor why you need kidney biopsy
- Stop all blood thinners 7 days prior to biopsy
- Take your blood pressure medicines on the day of biopsy

References/Sources of Images

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 © 09/2017 University of Wisconsin Hospitals and Clinics Authority. All rights reserved. Produced by the Department of Nursing. HF#7743