

Native Kidney Biopsy

How to prepare and what to expect

This handout explains how to prepare for a native kidney biopsy. It includes risks that are involved, and how to get your test results.

What is a native kidney biopsy?

In a *kidney biopsy*, your doctor takes a sample of your kidney tissue, usually through a needle. *Native* kidneys are the kidneys you were born with.

Why do I need this test?

A native kidney biopsy is being done because you have a kidney disease, but we do not now what type of disease you have. A biopsy is the only way to know for sure what type of disease you have. The biopsy may also give your doctor some idea about the outcome of the disease and whether the disease may return. Most times, the biopsy results help doctors plan your treatment.

How do I prepare?

Before your biopsy:

- **Tell your doctor if you are allergic to iodine.**
- **Tell your nephrologist if you are allergic to lidocaine or other numbing medicines.**
- If you take blood-thinning medicines, you should receive instructions about stopping your medicine before the biopsy. If you have questions about your medicines or if you have not received any instructions, please be sure to ask your doctor.



Talk with your doctor if you have any questions about how to prepare for your kidney biopsy.

Blood thinners include these drugs:

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| - Aggrenox
(dipyridamole/
aspirin) | - Fragmin
(dalteparin) | - Plavix
(clopidogrel) |
| - Agrylin (anagrelide) | - Heparin | - Pletal
(cilastazol) |
| - Arixtra
(fondaparinux) | - Kengreal
(cangerlor) | - Pradaxa
(dabigatran) |
| - Aspirin | - Lovenox
(enoxaparin) | - Savaysa
(edoxaban) |
| - Bevyxxa
(betrixaban) | - Nonsteroidal anti-
inflammatory drugs
(NSAIDs) such as | - Trental
(pentoxifylline) |
| - Brilinta (ticagrelor) | ibuprofen (Advil,
Motrin) and | - Xarelto
(rivaroxaban) |
| - Coumadin
(warfarin) | naproxen (Aleve,
Naprosyn) | - Zontivity
(vorapaxar) |
| - Effient (prasugrel) | - Persantine
(dipyridamole) | |
| - Eliquis (abixaban) | | |

The Night Before Your Biopsy

- Do **not** eat or drink anything after midnight. This includes mints, candy, and gum.
- You may take **small** sips of water to take your medicines.

Biopsy Day

At Home

In the morning before your biopsy:

- Take your usual medicines with a sip of water.

At the Hospital

- When you arrive at the hospital, go to Admitting on the 3rd floor. You will be on the 3rd floor when you enter the main entrance of the hospital. The Admitting office is behind and to the right of the Information Desk in the main lobby.
- After you are admitted, go to the 3rd floor lab to have blood and urine tests. (If you had blood and urine tests done in the clinic within the past 2 days, they do not need to be done again.)
- After the blood and urine tests, you will be taken to the 2nd floor for an ultrasound exam and your biopsy.

- You must sign a consent form before we do the biopsy. When you sign the consent form, you are stating that you have learned about the risks of the procedure. The risks are linked with the biopsy as well as with the medicines used to help you relax.

What are the risks of having a kidney biopsy?

There are risks involved with any procedure. On the next page are listed some problems that can occur when having a native kidney biopsy. You may also have problems that are similar, or involve more than one of the risks.

More common risks of having a native kidney biopsy include:

- Blood in your urine (10% of patients, or 10 out of 100 patients, have this problem)
- Loss of blood from the blood vessels, requiring a blood transfusion (1% of patients, or 1 out of 100 patients)
- The formation of a *fistula* (connection of an artery and a vein) inside the kidney that may lead to bleeding or a rise in blood pressure:
 - Fistula formation (15% of patients, or 15 out of 100 patients)
 - Problems due to fistula (less than 1% of patients, or fewer than 1 out of 100 patients)
- Short-term higher or lower blood pressure

Less common risks of this procedure include:

- A blood clot that blocks urine flow
- The need to unblock the urine with a *stent* (plastic tube) placed in the *ureter* (the tube that connects the kidney and bladder)
- Squeezing of the kidney due to a blood clot around the kidney, causing problems in kidney function and higher blood pressure
- The need to plug a hole in the kidney that is bleeding:
 - To do this, your doctor inserts a *catheter* (thin, flexible tube) into a vein in your groin and up to the kidney. A coil (plug) is then placed in the hole in the kidney.
- Loss of kidney function or kidney failure because blood vessels are injured or a fistula is created
- Loss of the kidney (surgery must be done to remove the kidney)
- Infection in the skin, muscles, or kidney
- Puncture of another organ in the abdomen

- Injury of nerves on the tissues between the skin and the kidney, causing pain or loss of feeling
- Urine leaks around the kidney
- Death

There are also risks from the medicines you will receive to help you relax and to block pain. These include:

- A decrease in blood pressure
- A decrease in respiration (breathing), so that you may need a tube placed to help you breathe
- Problems thinking clearly
- An allergic reaction

What happens during the procedure?

- A nurse will:
 - Help get you ready for the biopsy
 - Give you medicines to help you to relax and to ease pain
 - Help the *sonographer* (ultrasound technician) get you into position for the biopsy
- Most times, you will lie on your stomach with a pillow placed under your stomach. Your arms will be placed so that you are comfortable and so the nurse can give you medicines.
- You will also have a heart, blood pressure, and oxygen monitor placed. You will receive oxygen through a nasal *cannula* (a 2-pronged tube that fits into both nostrils). To monitor your heart, we will put sticky patches on your chest and arms. We will place a blood pressure cuff on one of your arms and an oxygen monitor on one of your fingers.
- Then sonographer will then locate the kidney for the *nephrologist* (kidney doctor). The nephrologist will clean off your back with an antiseptic solution (betadine or hibiclens).
- We will place *sterile* (germ-free) paper drapes near the biopsy site. The nephrologist will numb your skin with lidocaine.
- The nephrologist will numb your skin and tissues all the way down to the outside of your kidney. The medicine the nurse gives you will keep you comfortable.
- A cut will be made in your skin. The biopsy needle will be advanced down to the kidney. You may hear the nephrologist and the sonographer talking as the needle moves.

- When the needle is close to the kidney, the nephrologist will ask you to take a big breath and hold it so that your kidney does not move. Tissue samples will then be taken.
- You may hear a loud click during the biopsy. Rarely, a patient feels a dull ache or nausea.
- To get enough tissue for the pathologist to diagnose your kidney disease, the nephrologist may make up to 5 passes with the biopsy needle.

What happens after the biopsy?

Right after your biopsy:

- We will take your blood pressure.
- The area of the biopsy will be covered with a gauze bandage.
- You will be turned over onto your back.
- You will lie on your back for about 10 to 15 minutes. A nurse will monitor your vital signs.
- You will then return to a short-stay unit in the hospital.

For at least the next 6 to 8 hours:

- You will need to stay in bed.
- You cannot sit up at more than a 45° angle.
- You can use the bedpan and/or urinal as needed.

After this recovery time:

- We will tell you when it is safe for you to get up. A nurse may help you get up at first.
- We will watch your urine for bleeding.
- We will give you pain medicine, if needed.
- You will be able to eat if your vital signs are stable and you are not in pain.
- If you have pain, are having problems urinating (peeing), have nausea, or are uncomfortable in any other way, please call your nurse right away.
- You will stay in the hospital at least 8 hours after your biopsy so that we can monitor you. Some patients will stay overnight. If you stay overnight in the hospital, your nephrologist will check your lab results and tell you and your nurse if it is OK for you to leave the hospital.

When do I get the biopsy results?

The first results from your biopsy will be ready within 48 hours, if your biopsy was done Monday through Thursday, and late on Monday if the biopsy is done on Thursday or Friday. Full results take at least 5 days.

If you need special tests or if your doctor needs to spend more time going over the lab results, it may take longer for you to receive the final results.

Your nephrologist may call you with first results. Most times, we will ask you to come for a clinic visit to talk about the full results and the care plan that you will need.

Where do I park at the hospital?

- The Triangle Parking Garage is on N.E. Pacific Place, across the street from the hospital.
- From Montlake Blvd., turn left onto N.E. Pacific Street and then turn right onto N.E. Pacific Place. After you park in the garage, walk through a pedestrian tunnel to the hospital. You will be on the 3rd floor (main level) when you enter.
- The Triangle Garage has 500 parking stalls with 67 disability-parking stalls and 9 wheelchair-accessible parking stalls.
- Parking staff is on duty weekdays 6 a.m. to 12 midnight and on Saturdays from 7 a.m. to 4 p.m. Garage parking is free on Sundays.
- The Triangle Garage has a height restriction of 6 feet, 8 inches.
- To park over-sized vehicles, use the S-1 lot behind the hospital or the Husky Stadium parking lot.

Questions?

Your questions are important. Call your doctor or healthcare provider if you have questions or concerns.

Nephrology Clinic:
206.598.9116

4-South Unit: 206.598.4670
(the short-stay unit where you will be before and after the biopsy)

Or, call 206.598.6190 and ask to page your doctor.