

Kidney Biopsy

Information for Parents





The nephrologist has ordered a kidney biopsy for your child.

This brochure explains what the biopsy is and gives you the essential information about the procedure and for the return home.

What is a kidney biopsy?

A kidney biopsy involves the removal of one or more small pieces of kidney tissue, a few millimeters in size, to be examined under a microscope. A sample is taken from only one kidney, because in kidney disease the abnormalities usually affect both kidneys in the same way.



Why is a kidney biopsy done?

The purpose of a biopsy is to determine the cause of the kidney disease, its severity, its prognosis and the best treatment.

Is any advance preparation necessary?

Before the biopsy is done, your child will have a blood test to determine his risk of bleeding. If your child is taking medication that affects blood clotting (such as Aspirin® or antiplatelet medication), he'll have to stop taking it for a short time, usually one week before the procedure. Your doctor can tell you more about this. Other medications may also have an effect on blood clotting and should be stopped (e.g. anti-inflammatory drugs, such as ibuprofen [Advil®, Motrin®] or naproxen [Naprosyn®, Aleve®]). An IV infusion will be started on the morning of the procedure.



Will my child be hospitalized?

Children aren't usually hospitalized for this procedure. You'll be asked to arrive early in the morning at the Medical Day Unit. A 6-hour observation period is required after the procedure, and you should be able to leave at the end of the day. Occasionally, a child may need to stay in hospital for 24 hours or more, depending on his condition. A nephrologist will examine your child following the procedure and will give you more details about the length of your child's hospital stay, if required.



How is the biopsy done?



The procedure is performed by a radiologist, using ultrasound, in an angiography room. It's not a surgery. Your child will be lying on his stomach and the doctor will insert a needle into a kidney. A small bandage will be placed over the biopsy site; there are no stitches. The procedure is usually not performed under general anesthesia; however, your child will be sedated to help him relax and to make sure he does not move during the biopsy. More often than not, children don't remember the procedure.

Does it hurt?

The biopsy site does not usually cause any pain. However, your child will be given medication if there's any discomfort.

Does my child need to fast?

Yes, your child must fast for 3 hours before the procedure.



When can my child start eating and drinking again?

When we get the results of the follow-up blood test, about 3 hours after the procedure, your child will be able to drink clear fluids, such as water and apple juice. He will be allowed to eat once his urine is clear.

How long does the procedure take?

The procedure itself takes about 15 minutes, in addition to the time needed for preparation, administering sedation, and returning to the observation room. Your child will be in Medical Imaging for about 1 hour to 1½ hours.



What will the care team do after the procedure?

For the first 6 hours after the procedure, your child should rest quietly, either lying down or in a half-sitting position. You can bring him something to read or watch during this observation period. A nurse will regularly check your child's blood pressure and urine colour. Two hours after the biopsy, your child will have a blood test to check his hemoglobin level. He will then be asked to drink often to increase urine output.



What are the possible complications?

Complications following a kidney biopsy are rare. They can include the following:

- Side effects of the sedative medications or anesthetics. We'll explain the type of anesthesia your child will receive.
- A perirenal hematoma (bleeding around the kidney) occurs in 11%-18% of cases. The hematoma is usually benign, doesn't cause any symptoms, and disappears spontaneously. Sometimes a patient experiences pain from the hematoma. If this happens to your child, he will be given pain medication. It's important to notify and consult with your doctor if your child experiences significant and persistent pain.
- Visible hematuria (blood in the urine) may occur after the procedure (2% of cases). This hematuria is usually benign and stops spontaneously. Most cases of significant bleeding occur within the first 12-24 hours after the biopsy. If bleeding persists or if there's heavy bleeding, hospitalization may be required. It is important to notify and consult your doctor if you see blood in your child's urine when you return home after the observation period (phone 514 345-4931, press 0, and ask for the nephrologist on call).
- Arteriovenous fistulas (connections between small arteries and veins in the kidney) can form in up to 15% of cases. These usually have no consequences for the patient and disappear spontaneously with time. In rare cases of symptomatic fistulas, a corrective procedure may be performed.
- Infections of the tissues around the kidney are uncommon (0.2% of cases).

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Can my child continue his regular activities after the biopsy?

Your child can go back to school and resume regular activities 24 hours after the procedure if there are no complications. We recommend that your child avoid physical activity for one week. It's also important to avoid medications that may thin the blood (e.g. anti-inflammatory drugs, such as ibuprofen [Advil[®], Motrin[®]] or naproxen [Naprosyn[®], Aleve[®]]) for two weeks after the biopsy; some of these medications may already be contra-indicated depending on your child's kidney condition.

If you have any other questions, please ask your care team.
Nephrology: **514 345-4737**

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