



移植后的肾活检

肾脏/胰脏移植

本章为您说明移植后的肾活检，此检查可以显示移植肾内部的情况

为何我需要做肾活检？

活检是对移植后测试肾脏最佳的方法。您的医生可能为下列的需要而指定做活检：

- 找出您肾脏问题的原因
- 在更改任何药物之前先检查您的肾脏的状态

活检会显示您是否发生了排斥、感染、药物或其他的因素造成的伤害、或新的肾脏病。这些结果能协助我们调整您的药物、或治疗方案。

我应该如何准备？

药物

在您做活检之前，您的医会生会审查您的药物。如您正在服用抗血凝的药物、就需要在活检的前几天停止服用该药物。抗血凝的药物包括阿司匹林

(**aspirin**)、替罗非班 (**Aggrastat**)、安归宁 (**Agrylin**)、比伐卢定 (**Angiomax**)、阿加曲班 (**Argatroban**)、戊聚糖钠 (**Arixtra**)、华法林 (**Coumadin/warfarin**)、法安明 (**Fragmin**)、亭扎肝素 (**Innohep**)、依替巴肽 (**Integrilin**)、Iprivask、依诺肝素 (**Lovenox**)、达那肝素 (**Orgaran**)、潘生丁 (**Persantine/Dipyridamole**)、波立维 (**Plavix**) 西洛他唑 (**Pletal**)、来匹卢定 (**Refludan**)、瑞莫杜林 (**Remodulin**)、瑞博 (**ReoPro**)、抵克立得 (**Ticlid**)、循能泰 (**Trental**)、及希美加群 (**Ximelagatran**)。



在您做活检之前，您的医会生会审查您的药物。

若您对碘（**iodine**）、利多卡因（**lidocaine**）、或诺可卡因（**novacaine**）有过敏反应、请您务必告诉医生、因为在为您做活检时会使用这类药物。

饮食

如您做活检时不需使用镇静剂（帮助您放松的药物）、就可以在做程序前进食。

大部分活检需时不多并且不需要使用镇静剂。您接受的唯一药物是局部麻醉、注射在移植肾脏周围的皮肤和组织。

如您需要镇静剂来协助您放松：

- 在做活检前的午夜后就须停止饮食。
- 使用镇静剂会延长您回家前所需的恢复时间。
- 您需要安排有人在程序后护送您或陪伴您回家。当日不可自己驾车或独自搭乘公交车或计程车。

到达医院后

做活检前我们会先为您抽血及收集尿液。除非您得到其他的指示；在您到达医院后、请先到 3 楼的抽血部做这些检测。

移植器官活检的过程

做完检测后、请您到放射科 / 造影服务部。超声波技师（超声波技师）会先为您移植的肾脏作超声检查、以检查该器官的血液及尿液流量。如没发现任何问题：

- 我们会以优碘（**Betadine**）或洗必泰（**Chlorhexidine**）清洗您的腹部。
- 我们会在做活检的部位盖上消毒布巾。
- 然后经表皮在移植的肾脏周边组织注射麻药（利多卡因 **lidocaine** 或诺可卡因 **novacaine**）。
- 当该部位已经麻痹后、我们就在该处的表皮上开一小切口、并将活检针穿过该切口。以超声波指引、将活检针导向您的肾脏。
- 当活检针到达您肾脏的边缘、我们便抽取活检。在抽取组织的过程中您会听到“啪”的声音。
- 这个过程可能至少要重复两次、以便取得作诊断所需要的组织。

某些肾脏周围的组织在移植后会变得很硬。做活检时该处将可能有压力感、但您不应该有任何刺痛感。

活检后

活检做完后、护士会观察您 4 小时。您符合下列条件时就可回家：

- 没有任何出血现象
- 血压稳定
- 至少排尿一次

回家后

- 如您的尿液是红色、多喝水来助您排出剩余的血。
- 如您有以下症状、请即刻致电给您的医生：
 - 鲜红色的尿液
 - 尿液中有血块
 - 疼痛

风险

任何程序都存有风险。移植肾脏活检有下列这些风险：

- 肾脏内产生**瘘管**（动脉和静脉之间不正常的连接）而导致出血或高血压：
 - 15% 的病人（100 位病人中有 15 位）体内会形成瘘管
 - 少于 1% 的病人（100 位病人中有 1 位）会因瘘管而导致问题
- 10% 的病人（100 位病人中有 10 位）小便会有血
- 1% 的病人（100 位病人中有 1 位）会因失血而需要输血

在做移植肾脏活检的病人中、少于 1% 的病人（100 位病人中低于 1 位）发生以下情况：

- 因血栓而导致尿道堵塞
- 需要透过输尿管支架（塑料管）以疏通尿流
- 血栓压迫到肾脏、导致肾功能降低及血压升高。
- 肾脏产生破洞导致出血并需要堵塞。

治疗肾脏穿孔的方法是、从您的腹股沟部插入一根**导管**（细薄柔软的管子）、直达肾脏的位置。然后于穿孔处置入一个称为**线圈**的塞子来止血。

- 丧失肾脏功能
- 失去该肾脏
- 皮肤、肌肉或肾脏感染
- 活检的过程不慎穿刺到其他腹部器官
- 活检的过程不慎伤及皮肤及肾脏之间的神经而导致疼痛或丧失感觉
- 恶心或呕吐
- 尿液外漏到肾脏的周围
- 死亡

如您对肾活检的风险有任何疑问或顾虑、请向医生提问。

活检结果

获得初步结果：

- 如活检是在一周的前半部、则 **48** 小时内会有初步结果。
- 若您是在周五做活检、则要在下周一的下午才会有初步结果。

您肾脏医生可能会在有了初步结果时与您联系。

因为对组织样本需要做些特殊测试、所以 正式的报告至少需要 **5** 天的时间才会得到。如我们需要做更多的评估时、则需要更长的时间才会有结果。

通常您肾脏医生会当面与您讨论有关活检最终的结果、及是否有需要在治疗上做任何变更。

您有疑问吗？

我们很重视您的疑问。当有疑问或顾虑时，请致电您的医生或医护人员。

移植科电话：206.598.3882

Transplant Renal Biopsy

For a kidney/pancreas transplant

This chapter explains a transplant renal biopsy, an exam that shows what is going on inside your transplanted kidney.

Why do I need a kidney biopsy?

A biopsy is the best way to know what is going on inside your transplanted kidney. Your doctor may order a biopsy to:

- Find the cause of problems in how your kidney is working
- Check the status of your kidney before making any changes in your medicines

Biopsy results will show if you have rejection, infection, injury from medicines or other causes, or new kidney disease. These results may be used to change your medicines or your treatment plan.

How do I prepare?

Medicines

Before your biopsy, your doctor will review your medicines. If you are taking blood-thinning medicines, you will need to stop taking them a few days before the biopsy. Blood-thinning medicines include aspirin, Aggrastat, Agrylin, Angiomax, Argatroban, Arixtra, Coumadin (warfarin), Fragmin, Innohep, Integrillin, Iprivask, Lovenox, Orgaran, Persantine (dipyridamole), Plavix, Pletal, Refludan, Remodulin, ReoPro, Ticlid, Trental, and Ximelagatran.

Tell your doctor if you are allergic to iodine, lidocaine, or novacaine. These will be used during your biopsy.



Your doctor will review your medicines before your biopsy.

Eating

If you will **not** be taking a *sedative* (medicine to help you relax) for the biopsy, it is OK to eat before the procedure.

Most biopsies are done quickly and without sedation. The only medicine you will receive is an injection to numb the skin and tissues around your transplanted kidney.

If you need sedation to help you relax:

- Do **not** eat or drink after midnight the night before your biopsy.
- Sedation will increase the time you need to wait before you can go home.
- You will need to arrange for someone to drive or accompany you home after your procedure. You will not be allowed to drive yourself or travel alone in a bus or taxi.

Arriving at the Hospital

Blood and urine will be collected before your biopsy. When you arrive at the hospital, go to the lab on the 3rd floor for these lab tests unless you are told otherwise.

The Transplant Biopsy

After your tests, you will go to Radiology/Imaging Services. The *sonographer* (ultrasound technologist) will do an ultrasound of your transplant to check blood and urine flow. If no problems are found:

- Your abdomen will be cleaned with an antiseptic (Betadine or Chlorhexidine).
- Sterile paper drapes will be placed over the biopsy site.
- A numbing medicine (lidocaine or novacaine) will be injected into your skin and tissue near your transplanted kidney.
- When the area is numb, a very small cut will be made in your skin and the biopsy needle will be placed through this cut. Under ultrasound guidance, the needle is moved to your transplanted kidney.
- Once the needle is just outside your transplant, a biopsy is taken. You will hear a snapping sound when this is done.
- At least 2 passes with the needle may be needed to get enough tissue to make a diagnosis.

Sometimes the tissue around a kidney transplant gets very hard. You may feel pressure, but you should not feel any sharp pain.

After Your Biopsy

After your biopsy, nurses will monitor you for about 4 hours. You will be able to go home when you:

- Have no bleeding
- Have stable blood pressure
- Urinate at least once

At Home

- If your urine is red, drink plenty of fluids to help pass the blood.
- Call your doctor if you have:
 - Very red urine
 - Blood clots in your urine
 - Pain

Risks

All procedures involve risks. A transplant kidney biopsy has these risks:

- A *fistula* (an abnormal connection of an artery and a vein) inside the kidney may cause bleeding or higher blood pressure:
 - A fistula forms in 15% of patients (15 out of 100 patients)
 - Problems from a fistula occur for less than 1% of patients (fewer than 1 out of 100 patients)
- Blood in urine occurs for 10% of patients (10 out of 100 patients)
- Loss of blood that requires a blood transfusion occurs for 1% of patients (1 out of 100 patients)

Of patients who had a transplant kidney biopsy, less than 1% (fewer than 1 out of 100 patients) had:

- A blood clot that blocked urine flow
- The need for a *stent* (plastic tube) in the ureter to unblock the urine flow
- A blood clot that put pressure on the kidney, reducing kidney function and increasing blood pressure
- A hole in the kidney that caused bleeding and needed to be plugged

To treat a hole in the kidney, a *catheter* (a thin, flexible tube) is inserted into the groin and up to the kidney. A plug called a *coil* is then placed in the hole to stop the bleeding.

- Loss of kidney function
- Loss of the kidney
- Infection in the skin, muscles, or kidney
- Puncture of another organ in the abdomen
- Nerve injury between the skin and the kidney that causes pain or loss of feeling
- Nausea or vomiting
- Leaking of urine around the kidney
- Death

Ask your doctor if you have any questions or concerns about the risks of having a kidney biopsy.

Getting Your Biopsy Results

The first results of your biopsy will be ready:

- Within 48 hours if your biopsy is done early in the week
- Late on Monday if your biopsy is done on a Friday

Your nephrologist may call you with these first results.

Final results take at least 5 days because of special testing that is done on the tissue samples. Results may also take longer if more evaluation is needed.

Most times, you will meet with your nephrologist to talk about the final results. Your nephrologist will let you know if any changes in your treatment plan are needed.

Questions?

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

Transplant Services:
206.598.3882