PATIENT & CAREGIVER EDUCATION

About Your Dialysis Treatment

This information explains dialysis at Memorial Sloan Kettering (MSK).

Your Kidneys and Their Functions

Your kidneys are 2 bean-shaped organs that are located in the back of your abdomen (see Figure 1). Their functions include:

- Filtering your blood to remove extra fluid and waste products from your body (see Figure 2).
- Balancing the fluids and electrolytes (minerals in your blood) in your body.
- Making a hormone called erythropoietin that helps your body make red blood cells.
- Making hormones to keep your blood pressure and calcium levels steady.

![Figure 1. Your kidneys](image1.png)

![Figure 2. How kidneys work](image2.png)

Figure 1. Your kidneys

Figure 2. How kidneys work
Kidney Failure

Kidney failure happens when your kidneys can’t do their normal functions and stop working. Kidney failure can occur suddenly (acute) or over a period of years (chronic).

With acute kidney failure, your kidneys may start working normally again within a couple of months. Chronic kidney failure is permanent, so your kidneys won’t start working normally again.

Causes of kidney failure

There are many reasons why kidney failure can happen. Some causes of acute kidney failure include losing a lot of blood, taking certain medications, infections, and blockages in the kidney. The 2 most common causes of chronic kidney failure are diabetes and high blood pressure.

Signs and symptoms of kidney failure

Common signs and symptoms of kidney failure are:

- Decreased or no urination
- Shortness of breath, fatigue, and confusion
- Swelling in the legs, arms, and face
- Nausea, vomiting, or loss of appetite

Your doctor may prescribe blood tests to check your blood urea nitrogen (BUN), creatinine, and electrolyte levels. The results will be higher than normal if you have kidney failure.

About Dialysis

Dialysis is the only treatment for kidney failure. It replaces the work that your kidneys do. Dialysis treats kidney failure by removing the waste products and extra fluids from your blood.

Dialysis is done by a dialysis machine. During dialysis, your blood travels outside your body through tubes and passes through a filter called a dialyzer, which is attached to the dialysis machine. The dialyzer functions like your kidneys and
cleans your blood. Your cleaned blood is then returned to your body (see Figure 3).

Figure 3. A patient receiving dialysis

**Getting dialysis at MSK**

**Before you start dialysis**

If you are admitted to MSK as an inpatient, you can get dialysis here. If you are being discharged or are outpatient and need dialysis, your Case Manager will find an outpatient dialysis center for your treatment. See the section “Getting dialysis outside of MSK” for more information.

If you’re on dialysis and are being admitted to MSK, tell your doctor or nurse so that they can let the dialysis unit know. You can also call them directly at 212-639-6836.

If you’re already admitted to MSK and your doctor has decided that you need dialysis, your nephrologist (kidney doctor) will discuss the treatment with you. They will also get your consent to have dialysis.

The next step is to have a dialysis catheter called a central venous catheter
A CVC is a thin, flexible tube that’s placed into a large vein in your neck, chest, or groin area (see Figure 4). The CVC has 2 lumens (or tubes), 1 red and 1 blue, that sit outside of your body. The red lumen pulls blood away from your body to the dialyzer to be cleaned and the blue lumen returns the cleaned blood to your body.

![Figure 4. A CVC in the chest](image)

Your doctor or nurse will give you more information about having a CVC placed. The CVC may be placed at the bedside in the Intensive Care Unit (ICU) or in an operating room by Interventional Radiology (IR) department.

Once you have started dialysis, you will need to be weighed and have blood work done every day. Your doctor will look at these results to see if you need a dialysis treatment that day.

**Hours and location**

At MSK, dialysis is done in 2 treatment rooms within the Intensive Care Unit (ICU). The ICU is located on the 11th floor of Memorial Hospital, at 1275 York Avenue, between East 67th and East 68th Streets.

Dialysis is done Monday through Friday from 7:00 AM to 5:00 PM, and occasionally on weekends. Our unit has 24 hour coverage by nurses and a nephrologist.
What to expect during dialysis

On the day of your dialysis treatment, you will be taken to the dialysis treatment room on the 11th floor in the ICU. Your doctor will examine you, answer any questions that you may have, and make sure that you gave consent for the procedure. Your dialysis nurse will also examine you, check your vital signs (blood pressure, temperature, and pulse) and answer any other questions before starting the treatment.

Before starting your dialysis treatment, your dialysis nurse will connect your dialysis CVC to the dialysis lines. Then the dialysis will begin.

During your dialysis treatment, your nurse will take your vital signs every 30 minutes or more often if needed. They will monitor your treatment closely and report any changes to your doctor.

Most people don’t experience any pain or discomfort during dialysis. You can sleep, watch television, or read. However, you can’t have any food or visitors during your treatment.

When your dialysis treatment is finished, all of your clean blood will be returned to you and you will be disconnected from the dialysis machine. Your nurse will recheck your vital signs and you will return to your room.

Timing of dialysis treatments

Your first dialysis treatment may last 2 to 3 hours and may be done every day for up to 3 days. This is done so that your body can get used to the process.

After that, your treatments may last 3 to 4 hours, depending on your daily lab results and weight. Regular treatments are usually done 3 times a week but depending on your needs, treatment can be done more often.

Your doctor will evaluate you daily to determine what your dialysis needs are. Your dialysis treatments may take priority over your other treatments, because your body needs it in order to function normally.

Getting dialysis outside of MSK

Once you’re ready for discharge from MSK, your MSK nephrologist will speak with you about whether you need to continue getting dialysis.
• If you need to continue getting dialysis, your Case Manager will help you find an outpatient dialysis center. You must have a dialysis center before you can go home.

• If you don't need dialysis anymore, your dialysis CVC will be removed before you go home.

Contact Information

If you have any questions or concerns about your inpatient dialysis treatment, call the dialysis unit at 212-639-6836. You can reach a staff member Monday through Friday from 7:00 AM to 5:00 PM. After 5:00 PM, during the weekend, and on holidays, please call 212-639-2000 and ask for the fellow on call for the renal service.

Resources

American Kidney Fund
800-638-8299
www.kidneyfund.org

American Association of Kidney Patients
800-749-2257
www.aakp.org

Kidney School
608-833-8033
www.kidneyschool.org

For more resources, visit www.mskcc.org/pe to search our virtual library.