

Inferior Vena Cava (IVC) Filter Retrieval with the Endovascular Laser Sheath

If you have any questions, ask your physician or nurse.

The inferior vena cava (IVC) is a large vein in your abdomen that brings blood from the lower part of your body back to the heart. You have an IVC filter that was put in to prevent blood clots from moving from the lower part of your body to your lungs.

When the filter was placed, the plan was to remove the filter at a later time when:

- Your risk for blood clots decreased
- You were placed on blood thinning medicines
- Your physician has determined that your filter can be removed.

This handout describes:

- How the filter is removed
- How to prepare for the procedure
- Follow-up care needed after the filter is removed

The IVC filter is removed in the Interventional Radiology (IR) Department. It does not require a hospital stay. The total time in IR is about 4 hours.

The physician will use a special tool called the endovascular laser sheath to remove your IVC filter. The laser sheath is inserted through a small tube (catheter) inserted into the IVC through a vein in your neck or groin. The tool has a small laser inside the tube that can detach scar tissue around your filter. The filter can then be removed through the tube.

It will be done with this equipment for one of the following reasons:

- Your filter could not be removed in the standard way
- You have had your filter for more than 6 months
- Your filter was intended to be permanent but now can be removed

Risks

As with any procedure, there are risks. They include:

- Infection
- Bleeding
- Blood clot in the IVC

Your physician will answer any questions you have about the procedure.

Before the procedure

You or your physician will need to contact the IVC Filter Clinic coordinator who will begin to gather all the medical information needed for the procedure. If you were not treated at Northwestern Memorial Hospital, the coordinator will need all outside medical records of your:

- Medical history
- IVC placement procedure at another hospital
- Any previous attempts to remove your IVC filter
- X-ray or CT images of your abdomen and IVC filter (if done)

Your physician and the interventional radiologist will review this information. If you are a candidate to have your filter removed using the laser device, you will be scheduled for the following appointments:

IR consult

This visit is in the Department of Interventional Radiology located on the 4th Floor of the Feinberg Pavilion at 251 East Huron Street, Chicago.

You will be seen by the IVC Filter Clinic coordinator and interventional radiologist. They will explain the procedure to you and answer any questions you may have. You will sign a consent form for the procedure and the use of the laser. This appointment is about 30 minutes and can be done the same day of the filter removal procedure.

Additional testing (if needed)

If the physician determines you need more testing before the filter is removed, the IVC Filter Clinic coordinator will schedule this for you on the same day or before this visit.

These tests may include:

- CT of your abdomen
- Ultrasound of your legs

Day of procedure at home

You will have IV medicine to relax you during the procedure, so:

- Do not eat solid foods or drink anything after midnight before the procedure.
- You can take your medicines with sips of water, if needed.
- You must have a responsible adult to assist you in getting home safely (outpatients only).

What to bring to the hospital

Be sure to bring:

- A list of allergies
- A list of all your current medications (prescription, over-the-counter and herbals), and the last time taken
- Photo ID

- Medical insurance information and card
- Medicare card (Medicare patients only)

Please leave all valuables (jewelry, credit cards, money) at home. This includes body piercing jewelry and tongue studs. You may not wear any jewelry during surgery.

Arrival

Parking is available for patients and visitors in the garage at 222 East Huron Street, across from the Feinberg and Galter pavilions. For discounted rates, please bring your parking ticket with you. Tickets can be validated at the Customer Services Desks on the 1st and 2nd floor of the Feinberg and Galter pavilions, and on the 1st floor of Prentice Women's Hospital.

From home, you will come to the 4th floor of the Feinberg Pavilion, 251 East Huron Street, Chicago, at the time given to you. After you check in with the receptionist on the 4th floor, you and 1 member of your family will meet with staff that will bring you to the prep and recovery area. Here they will review your health history, medicines and allergies. A short physical exam will be done. After reviewing the procedure and asking any questions you may have, you will be asked to sign a written consent if you have not done so already.

You will change into a hospital gown. An IV (into the vein) line is placed in your arm or hand.

During the procedure

The nurse will help you lie on the exam table. You will be connected to heart and blood pressure monitors.

To access the IVC, 1 of 2 sites may be used:

- Vein in the neck (internal jugular)
- Vein in the groin (femoral vein)

The area around the site will be cleaned with a special soap that may feel cold. It will then be covered with sterile sheets. Numbing medicine will be injected into the area. You will feel some burning as the medicine is given. Using sound wave images (ultrasound), the physician will insert a small needle into the vein. Then a small tube (catheter) will be threaded into the needle and slowly passed to the IVC. You may feel pressure, but you should not feel any pain.

Once the filter is removed, firm pressure will be held over the puncture site for about 5 to 10 minutes. Then a small bandage or skin glue will be placed over the site. You will then be taken back to the prep and recovery area.

After the procedure

A nurse will monitor your heart rate, blood pressure and the puncture site. Let the nurse know if you have any pain or discomfort. After about 1 to 2 hours:

- You will be discharged, or
- Return to your hospital room (inpatients)

Your nurse will review guidelines about your follow-up care. If you had medicine to relax you and are to be discharged, a responsible adult must assist you in getting home safely.

At home

Diet

You may resume your regular diet after discharge. You should drink at least 6 glasses of water (8 ounces each) over the next 24 hours. Water helps to clear the dye used during the procedure.

Activity

On the day you leave the hospital, limit your activities. No physical exercise or heavy lifting (greater than 10 pounds) for the next 3 days. Do not drive for 24 hours after the procedure. You may resume all other daily activities 24 hours after the test.

Call the IR Department right away at **312.926.5200** if you notice any of the following:

- Swelling or bleeding at the puncture site; if the site is bleeding, hold pressure to the site for 5 to 10 minutes
- Fever higher than 101 degrees F
- Redness at the puncture site, or increasing tenderness or discharge at the puncture site

Follow-up care

One week after your filter is removed, the IVC Filter Clinic coordinator will call you to see how you are doing. After that, you will follow up with your primary care physician. If you need to come back for a follow-up visit with the IVC Filter Clinic, the coordinator will arrange that with you. Whenever you see a new physician for the first time, you should mention you have had a history of blood clots and an IVC filter placed in the past. This is important if you are:

- Having surgery
- Being treated for a new condition
- Taking new medicines

If you are taking anticoagulation or blood thinning medicines, such as Coumadin[®], Lovenox[®] or Fragmin[®], be sure to have the needed routine tests to check your blood's clotting time.

If you have signs of bleeding or bruising while taking these medicines, contact your physician.

If you have signs or symptoms of blood clots, contact your physician right away or go to the nearest emergency room. These symptoms include:

- Swelling, pain or warmth in one of your legs
- Sudden shortness of breath, coughing or wheezing
- Chest pain or palpitations

For more information about IVC filters and the IVC Filter Clinic, please visit our website ativcfilter.nm.org or contact the IVC Filter Clinic at 312.926.5289.

Northwestern Medicine – Health Information Resources

For more information, contact Northwestern Memorial Hospital's Alberto Culver Health Learning Center (HLC) at hlc@nm.org, or by calling 312.926.5465. Health information professionals can help you find the information you need and provide you with personal support at no charge.

For more information about Northwestern Medicine, please visit our website at nm.org.

Para asistencia en español, por favor llamar al Departamento de Representantes para Pacientes al 312.926.3112.

The entities that come together as Northwestern Medicine are committed to representing the communities we serve, fostering a culture of inclusion, delivering culturally competent care, providing access to treatment and programs in a nondiscriminatory manner and eliminating healthcare disparities. For questions, please call either Northwestern Memorial Hospital's Patient Representatives Department at 312.926.3112, TDD/TTY 312.926.6363 or the Northwestern Medical Group Patient Representatives Department at 312.695.1100, TDD/TTY 312.926.6363.

Developed by: The IVC Filter Clinic and Department of Interventional Radiology