

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

## Inferior Vena Cava (IVC) Filter Placement

An IVC filter is used to prevent blood clots from moving from the lower part of your body to your lungs. Guided by X-ray, this filter is placed in a large vein (IVC) found in your abdomen. The IVC brings blood from the lower part of your body back to the heart.

Most often, the filter is stainless steel or nitinol (nickel titanium). The filter placement is done in the Interventional Radiology (IR) Department and takes about 1 hour.

Most often a filter is placed in patients who:

- Have blood clots in the legs called deep vein thrombosis (DVT) or lungs called pulmonary embolisms (PEs)
- Are at greater risk of DVT or PEs
- Cannot take “blood thinning medicines”

Filters may also be used.

- When blood thinning medicines have not worked to prevent DVT or PEs (for more information, please refer to the NMH brochure, ***Deep Vein Thrombosis***)
- When you have a history of blood clots and will need surgery or a procedure

In those cases, the filter is placed to prevent a blood clot immediately after the surgery or procedure when you cannot be on blood thinning medication.

There are 2 types of IVC filters:

- Permanent filters that remain in place for the rest of your life
- Retrieval filters are also known as temporary or optional filters. These filters can be permanent or removed when you are no longer at risk for clots or you are able to be placed on blood thinning medicines

Your physician will talk with both you and the IR physician about which filter is best for you.

Both the placement and removal of the filter can be done, either as an outpatient, or while you are in the hospital.

### Risks

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

- Infection
- Bleeding
- Shifting or movement of the filter after it is put in (very rare)

Your physician will discuss all the risks and benefits with you in detail.

## **Before the procedure**

You will talk with a staff member of the IR Department. They will review your history. The IR physician will go over the procedure and its risks with you.

The IVC can be accessed by either a vein in your neck or in your groin. To keep you comfortable, the physician may use:

- Local anesthesia (numbing medicine)
- IV (into the vein) medicine that will make you relaxed and sleepy

### ***Day of procedure at home***

Most patients have IV medicine to relax them during the procedure, so:

- Do not eat solid foods 6 hours before the procedure.
- Stop drinking water and other clear liquids 3 hours 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), including 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, 1 hour before your procedure. After you check in with the receptionist on the 4th floor, you and one member of your family will meet with staff who will bring you to the prep and recovery area. Here they will review your health history, medicines and allergies. You will have a short physical exam. After reviewing the procedure and answering any questions you may have, you will be asked to sign a written consent.

You will change into a hospital gown. An IV (into the vein) line will be placed in your arm or hand if you will be receiving IV medicine to relax you.

## During the procedure

Below is a picture of the room where you will have your filter placed. You will be lying on the table. The X-ray machine over the exam table will move over you, but not touch you during the procedure. The machine is used to guide the filter placement.



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

The area around the insertion 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. A small tube (catheter) will be threaded through the needle and slowly passed to the IVC. You may feel pressure, but you should not feel any pain.

Contrast dye will be injected, and X-rays of your IVC will be done. The filter will be guided into the IVC through the catheter. Once the filter is in place, the catheter will be removed. Firm pressure will be held over the puncture site for about 5 to 10 minutes. A small bandage or skin glue will be placed over the site. You will be taken to the 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 hour, you will either:

- Be discharged, or
- Return to your hospital room (inpatients)

If you are going home, the nurse will review guidelines about your follow-up care. If you had medicine to relax you, 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. Do not do physical exercise or heavy lifting (greater than 10 lbs.) 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 drainage at the site
- Increased swelling in your legs, pain in your back, legs or abdomen

## **Follow-up care**

### ***Permanent filters***

If you had a permanent filter placed, you will follow up with your primary physician. The physician will talk to you about the next steps in preventing and treating blood clots.

### ***Retrievable filters***

If you had a retrievable filter placed, a nurse or physician from the IVC Filter Clinic in the IR Department will follow up with you and your physician.

### ***2-week follow up***

The IVC Filter Clinic coordinator will check your progress to see if your filter can be removed. You may be ready for removal if you are:

- Discharged from the hospital
- Finished with surgery
- Started on blood thinning medications
- Now at decreased risk for blood clots

### ***2 to 6 weeks after placement***

The interventional radiologist or nurse coordinator will contact your primary physician to discuss removal of the filter.

You may need a CT scan of your abdomen and pelvis before the filter can be removed to:

- See if the filter has trapped any clots
- Check the position of the filter

You may also need a lower extremity duplex exam or ultrasound of your legs before the filter is removed. This will check to see if any new blood clots have formed in your legs after the filter was placed.

If you need any of the above tests done, the IVC Filter Clinic coordinator can help you to schedule these before your filter removal procedure.

Once it is safe for your filter to be removed, the IVC Filter Clinic coordinator will contact you and schedule the removal procedure with you.

You may also need a clinic visit before your filter is removed. If so, you will meet with the physician and nurse coordinator to talk about the filter removal. They will answer any questions you may have.

For more information about IVC filters and the IVC Filter Clinic, please call 312.926.5289 or visit [ivcfilter.nm.org](http://ivcfilter.nm.org).

### **Northwestern Medicine – Health Information Resources**

For more information, contact Northwestern Memorial Hospital's Alberto Culver Health Learning Center (HLC) at [hlc@nm.org](mailto: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](http://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