



Vena Cava Filters

Helping you understand your procedure and the consent form

► **Please read this handout before reading and signing the consent form for “Vena Cava Filter Placement.”**

This handout describes how to prepare for and what to expect from the vena cava filter procedure.

This handout also provides information about risks, benefits, and alternatives to the procedure. This material is in addition to the discussions you have with your doctors. It is important that you fully understand this information, so please read this handout thoroughly.

About the Procedure

Your *inferior vena cava* (IVC) is a large vein that returns blood from your lower body to your heart. IVC filters are devices placed into the inferior vena cava in the abdomen. They are used for patients who have or are at risk to develop clots (*deep vein thrombosis* or DVTs) of the legs, and who cannot be treated by blood thinners alone.

The IVC filter traps blood clots that have broken loose and prevents them from reaching the lungs, an event called *pulmonary embolism*. Pulmonary embolism is a serious and sometimes fatal complication of clots.

Until recently, IVC filters were permanently implanted devices. These filters have become widely accepted as the standard mechanical method used to prevent pulmonary embolism. Now, there is a new kind of IVC filter. It is called optionally retrievable or removable, which means it can be left in place as long as filter protection needed, but can be removed if such protection is no longer needed.

Vena Cava Filter Placement

Tell your health care provider if you have had any kidney problems or reactions to iodine-containing items such as contrast agent. If so, your primary health care provider will prescribe medicine for you to take before the procedure.

- Eat a light meal the night before, but do not eat or drink after midnight. If you have a late afternoon appointment, you may have clear liquids for breakfast (such as apple juice, Jell-O, or clear broth), but nothing after that.
- If you are a diabetic, consult your primary doctor about what you cannot eat and how you should control your diabetic medication before the procedure.

How is the procedure done?

- The nurse will stay with you during the procedure to watch your blood pressure, heart rate, breathing rate, and comfort level.
- A radiology technologist will clean your skin with a special soap and may shave some hair in the areas that the doctor will be working on. A removable IVC filter is usually placed through the large vein in your neck, or through a vein in your groin.
- To prevent you from feeling pain during filter placement, you will be given a numbing drug at the insertion site. You will also be given a drug through your IV to help you relax and feel as comfortable as possible.
- The delivery catheter will be placed and guided to the area where the filter needs to be placed. Contrast (X-ray dye) is then sent into your blood vessel. You may feel a warm or hot flush spreading over your body when the contrast goes in. You may also feel like you have to urinate or have a bowel movement. These feelings are a normal side effect of the contrast and should only last a few seconds.
- X-rays are taken of your abdomen while the contrast moves through your blood vessel. The X-rays show where the filter can be safely placed. The filter is then released or deployed by a special catheter that holds the filter inside.
- Once the filter is placed, another injection of contrast is given to verify the location of the filter. The catheter is removed and pressure is applied to the puncture site. Pressure is held at the site for about 5 minutes.
- IVC filter placement takes about 1 hour. After the filter is placed, you will be watched for a couple of hours while you recover from the medications given during the procedure.

What medicines will be used?

The only medicine that is always used for this procedure is the numbing drug for the insertion site. Intravenous medications (usually *fentanyl* and *versed*) may be used for sedation if needed.

Benefits

The likely benefit of this procedure is:

- A vena cava filter should protect you against blood clots reaching your lungs, where they can cause severe complications and even death.

What are the possible risks and complications from this procedure?

Before you have this procedure done, it is critical that you understand the risks. No procedure is completely risk-free. The following risks are well-recognized, but there may also be risks not included in this list that are unforeseen by your doctors.

- Any implanted device, including IVC filters, might accidentally be placed in an undesirable location.
- Rarely, IVC filters can injure adjacent organs or migrate to the heart or lungs, causing significant injury or death.
- Rarely, IVC filters can become so filled with clots that they block all flow in the IVC. If this were to occur, you might experience significant and chronic swelling in your legs. It is important to note that these same clots, if they were not captured by the filter, might otherwise have reached the lungs and caused serious complications.
- If you receive an optionally retrievable IVC filter, and if it is removed, you will require another procedure.
- If an optionally retrievable filter is removed, you will no longer have mechanical protection against clots traveling into your lungs. Talk to your doctor about your continued risk for clots.
- If your filter is removed, and you need protection from blood clots in the future, a filter will have to be placed again.
- In some cases, optionally retrievable filters cannot be removed. This can occur if your risk for clot formation cannot be corrected, if the filter has a large amount of clot within it, or the filter becomes stuck to the wall of the IVC, which can happen after more than a few weeks of the filter being in place.
- Optionally retrievable filters are relatively new to clinical use and their long-term safety and efficacy are less well documented than those of many permanent filters that have been in use for a very long period of time.

Steps are taken during the procedure to lower the chances of having a complication.

Questions?

Call 206-598-6209

Your questions are important. Call your doctor or health care provider if you have questions or concerns. UWMC Clinic staff are also available to help at any time.

Interventional
Radiology:
206-598-6209

Radiology:
206-598-6200

What are the alternatives to this procedure?

1. You may choose an alternative treatment. Recognized alternative treatments are:

- Using blood-thinning agents.
- Using external compression devices on the legs.

There are associated risks and benefits to these treatment alternatives. Please discuss the details with your doctor. Risks include:

- Pulmonary embolism.
- Bleeding.

2. You may prefer a permanent IVC filter over an optionally retrievable device or you may prefer to have an optionally retrievable filter left in place permanently.

- Over a lifetime, permanent devices may have a higher likelihood of occlusion by clot.

3. You may decide not to have treatment.

What follow-up care is needed?

- Optionally retrievable filters usually need to be removed within 4 to 6 weeks of placement, after which they may become too firmly attached to the IVC to be removable. It is important that you remain in contact with your primary doctor during that time to discuss the possible removal of the filter.
- Permanent IVC filters require no specific follow-up care. You should tell all your future caregivers that you have an IVC filter in place.

If you have any further questions about this procedure or the risks, benefits or alternatives to this procedure, ask your doctor **before** signing any consent forms.

UNIVERSITY OF WASHINGTON
MEDICAL CENTER
UW Medicine

Imaging Services/Angiography

Box 357115

1959 N.E. Pacific St. Seattle, WA 98195
206-598-6209