



For more information please visit us online at: <http://www.osmh.on.ca/diagnostics/>

If you or your support person do not clearly understand the procedure, please ask for clarification



IVC FILTER INSERTION / REMOVAL

What is it?

An IVC (Inferior Vena Cava) filter is a small, metal device placed inside a large vein in your abdomen called the inferior vena cava. This vein carries blood from the lower body back to the heart. The filter helps prevent blood clots from traveling to your lungs, which can cause a serious condition called a pulmonary embolism. The filter acts like a barrier, catching clots and allowing normal blood flow to continue. It is placed by an interventional radiologist using a minimally invasive procedure, guided by X-rays and ultrasound.

Why do I need it?

You may require an IVC filter for the following reasons¹:

- Venous thromboembolic disease (VTE) with contraindication to anticoagulation.
- Need to stop anticoagulation due to complications.
- Recurrent VTE despite anticoagulation.
- VTE with massive PE, high risk of recurrence.
- Poor compliance with anticoagulants.
- Limited cardiopulmonary reserve.
- Large proximal DVT.
- High risk of anticoagulant complications.
- Cancer-related VTE.
- High VTE risk (e.g., long-term immobilization, trauma, surgery).
- Hypercoagulable conditions (e.g., cancer).



HOW IS THE PROCEDURE PERFORMED?

Before

For specific questions regarding the clinical need for this procedure, please contact your ordering provider.

Patient Preparation:

You should wear loose-fitting clothing that is easy to change out of. **You will need to arrange for someone to drive you home after you have recovered from the procedure.** One support person (spouse, friend, caregiver, family member) may accompany you on the day of your appointment, but not into the procedure room.

You may have clear fluids up to **four hours** before the procedure. Continue taking your morning medications, **except for blood thinners** (see next page), with a small sip of water.

You can eat and drink normally before the procedure. You may take your usual medications prior to the procedure. See next page if you take blood thinners.

Please phone the Diagnostic Imaging booking line at **705-325-2201 ext. 3505** for cancellations or rebooking if you are unable to attend your appointment.

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Bloodwork³

Bloodwork is **usually not needed** for this procedure.

However, it is required if you:

- Take Warfarin (Coumadin®)
- Have **prolonged bleeding**, risk of **thrombocytopenia** or **known thrombocytopenia**

If the above applies to you then your doctor will order:

- INR (must be ≤ 2.5 , ≤ 2.0 for ports or tunneled catheters)
- PTT
- CBC (platelets must be $\geq 20 \times 10^9/L$ or greater)

The bloodwork results must be current within **4 weeks of the procedure**.

If you take **Warfarin (Coumadin)**, you'll need a new INR drawn **the day before** your procedure.

Important: Missing bloodwork may delay or reschedule your appointment.

Blood Thinners / Anticoagulants / Antiplatelets Medications³

Stop the listed medications as per the below schedule before your procedure unless instructed otherwise. If unsure, then consult your doctor or healthcare provider about which medications to pause, for how long, when to restart them, and any concerns you may have.

Medication	Withholding	When to Stop	Restart After
Coumadin® (Warfarin)*/**	Based on INR	Based on INR	NA or same day re-initiation for bridged patients
Cangrelor (Kengreal)	Yes	Defer procedure until off medication; if procedure is emergent, withhold 1 h before procedure	multidisciplinary decision making
Abciximab (ReoPro)	Yes	Withhold 24 h before procedure	multidisciplinary decision making
eptifibatide (Integrilin) tirofiban (Aggrastat)	Yes	4–8 h before procedure	multidisciplinary decision making
* consider bridging with heparin (need admission) for high thrombosis risk cases			
** consider using reversal agent if emergent or STAT			

Important Notes

- Patients on Warfarin (Coumadin®) need an INR test the **day before** the procedure.
- Those with **prosthetic valves**, **prior clots**, or **stroke-related atrial fibrillation** may need bridging therapy to prevent thrombosis.
- **Do not** stop blood thinners if you have **coronary or brain stents**—consult your doctor first.
- If anticoagulation is stopped, your doctor must provide instructions.
- Applies only to elective procedures, not emergencies.

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Coming To The Hospital

You must first sign-in with **Centralized Patient Scheduling & Registration (CPSR)**, which is located immediately to your left when you enter the hospital from the main entrance (off Dunlop Street, across from the gift shop). You'll receive a wristband and, for new tube insertions, be directed to **Day Surgery**. They'll prepare you and take you to **Diagnostic Imaging** at your scheduled time.

Please bring to the hospital your OHIP card and a list of current medications you are taking.

You may also bring a book, water, phone/tablet with earphones, and a snack in a small bag for when you are recovering from the procedure.

During

IVC filters are inserted and removed in the Interventional Radiology Department of Diagnostic Imaging.

The duration of your appointment time will vary from 1 hour – 2 hours.

1. You will change from above the waist into a hospital gown.
2. A medical radiation and imaging technologist (MRIT) will explain the procedure and answer any questions you have.
3. You will lie on your back on a procedure table and will be awake while the IVC filter is placed or removed. You may receive pain medication during the procedure.
4. This is an aseptic procedure, and as such a region at the base of your neck or groin will be cleaned using a hospital-approved cleansing agent, and sterile drapes applied.
5. A radiologist will administer a numbing agent, called Lidocaine, at various times. This freezes the area where the radiologist will be working. This should be the only pain or discomfort during the procedure.
6. The radiologist will use a combination of ultrasound and x-rays, to insert or remove the IVC filter.
7. A gauze dressing will be applied at the end of the procedure.

Notes / Questions *(write down any notes or questions you may have for your doctor, healthcare practitioner, or the care team in Diagnostic Imaging on the day of your appointment. You can also use this space to write down a list of your current medications):*

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WHAT TO EXPECT AFTER



Recovery & Going Home

You will be sent to the **Post Anesthesia Care Unit (PACU)** to recover from the procedure. Once recovered, you will be free to go home as long as you are feeling well.

You will need someone to drive you home after the procedure. Don't drive for the next 24 hours or while you're taking strong pain medicine. If you were given medication to help you relax or manage pain during the procedure, then you cannot drive for the next 24 hours.



Diet & Activity²

- Rest for the day and take it easy for 1–3 days (as needed).
- Have an adult family member, caregiver, or friend stay with you the night after the procedure in case you need help.
- Resume your normal diet, but if you feel nauseous, try bland, low-fat foods like rice, chicken, toast, or yogurt.
- Refrain from lifting over 4.5 kilograms (10 pounds) or doing vigorous arm activities in the first week after insertion.
- Check with your doctor or healthcare provider about which activities are safe, but avoid upper body sports or exercises (e.g., tennis, weightlifting).
- Gradually increase activity as you feel ready over the next week.
- You may not be able to swim—confirm with your doctor or healthcare provider.
- Drink plenty of fluids, however if you have kidney, heart, or liver issues, consult your doctor before increasing fluid intake.



Wound Care²

- Wait 24-48 hours before showering, or as instructed by your doctor or healthcare provider.
- Keep the first dressing on until the morning after the procedure, then change it every 24 hours.
- Keep the site clean and dry.
- Leave any tape strips (steri-strips) on the incision for a week or until they fall off.
- Avoid applying creams, lotions, or ointments unless instructed by your doctor or healthcare provider.



Bathing²

- Avoid scrubbing the incision and pat it dry after showering.
- Avoid baths, swimming, and hot tubs until the incision is fully healed and no scab remains.
- Take showers instead of baths and cover the site with waterproof material if showering before the wound fully heals.



Medication

- **If your doctor or healthcare provider advised you to stop any medications for this procedure then consult with them first about the safety of when you can start your medications again;**
- Otherwise, resume your normal medication schedule.
- If you **normally** take acetylsalicylic acid (Aspirin™) or another blood thinner medication, ask your doctor or healthcare provider when to start taking it again. Make sure that you understand exactly what they want you to do;
- Otherwise, **do not** take (Aspirin™) or anti-inflammatory medicines (such as ibuprofen) for one **week** after the procedure.

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WHEN TO SEEK HELP²



Call 911:

If you believe you require emergency care – **call 911**. Reasons to call 911 include:

- You have passed out (lose consciousness), or become very dizzy, weak, or less alert
- You experience sudden chest pain and shortness of breath; and/or
- You have severe trouble breathing
- Significant bleeding from the procedure site (i.e. bright red blood that won't stop)
- You have a fast or uneven pulse



Call your doctor, healthcare provider, or Health Connect Ontario immediately if you experience:

- Increased pain, swelling, warmth, or redness in your face, chest, neck, or groin or leg where the procedure was performed.
- A fever (more than 100°F / 38°C).
- Chills, with or without fever.
- Pus draining from the procedure site.
- Bright red blood has soaked through the dressing.
- You have new or worse pain at the procedure site.
- Bruising or swelling at the procedure site that is getting bigger.
- An upset stomach and you can't keep fluids down (you're throwing them up).
- You have signs of a blood clot in your leg (called a deep vein thrombosis), such as:
 - i. Pain in your calf, back of the knee, thigh, or groin.
 - ii. Redness and swelling in your leg.
- Any other concerns.

Health Connect Ontario may be reached 24-hours a day, including weekends, by:

- Calling 8-1-1
- Calling 1-866-797-0007 (TTY – teletypewriter service)
- Visiting <https://healthconnectontario.health.gov.on.ca/> and selecting “Chat with us”

BRING THIS INFORMATION PACKAGE WITH YOU SHOULD YOU URGENTLY NEED TO SEE YOUR DOCTOR OR GO TO THE EMERGENCY DEPARTMENT OF YOUR NEAREST HOSPITAL.

Use this material for your information only. It does not replace advice from your doctor or other health care professionals. Do not use this information for diagnosis or treatment. Consult with your health care provider about a specific medical condition.

References:

1. Muneeb A, Dhamoon AS. Inferior Vena Cava Filter. [Updated 2023 Aug 8]. In: StatPearls [Internet]. Treasure Island (FL): StatPearls Publishing; 2024 Jan-. Available from: <https://www.ncbi.nlm.nih.gov/books/NBK549900/>
2. Vena Cava Filter Placement: What to Expect at Home. Accessed October 9, 2024. My Alberta Health. <https://myhealth.alberta.ca/Health/aftercareinformation/pages/conditions.aspx?hwid=abo4461>
3. Patel et al. Society of Interventional Radiology Consensus Guidelines for the Periprocedural Management of Thrombotic and Bleeding Risk in Patients Undergoing Percutaneous Image-Guided Interventions—Part II: Recommendations. JVIR 2019; 30:1168–1184.

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