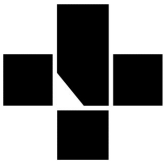
Venous Thromboembolism (VTE)

Cancer Patient Education

A guide for patients with cancer



Alberta Health Services

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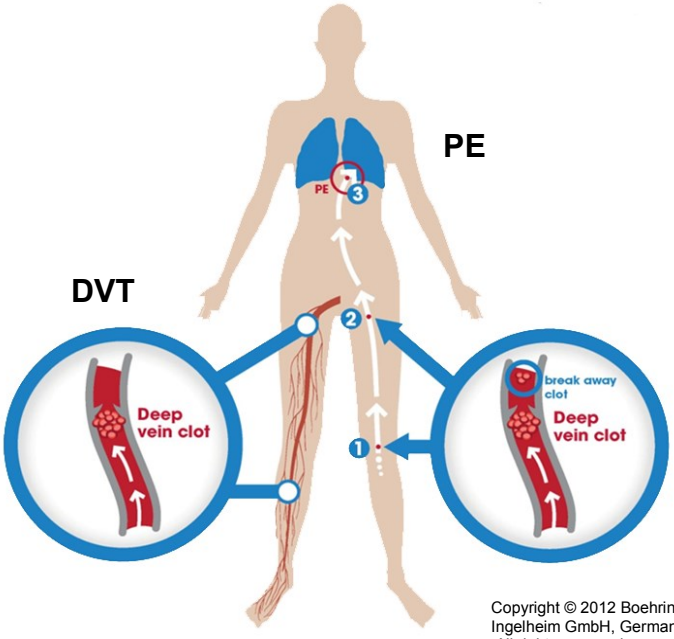
Venous Thromboembolism (VTE)?

VTE is a **blood clot** that forms in the veins of the body. The most common vein blood clots are:

1. **Deep Vein Thrombosis (DVT):**
    - A blood clot forms in a vein of the leg or pelvis
    - It may partially or totally block the flow of blood
2. **Pulmonary Embolism (PE):**
    - A blood clot forms in the lungs or somewhere else in the body
    - If the clot is from somewhere else, it travels through the bloodstream to the lungs, gets stuck there and cuts off the blood supply



Signs and symptoms of a blood clot

Deep Vein Thrombosis (DVT)

- Pain or tenderness in the calf, behind the knee, along the inner thigh to groin
- Swelling
- A change in the colour of your skin (a blue, purple or red colour) in the area around the site of a clot
- The area feels warm to the touch

Pulmonary Embolism (PE)

- Shortness of breath or trouble breathing
- Chest pain or upper back pain, especially when you breathe
- Coughing up blood
- Unexplained rapid heart rate
- Dizziness or feeling faint

If you have any of the above symptoms, go to your nearest **EMERGENCY** room.

A PE can be **life-threatening**.

What can cause a blood clot?

Many things can cause a blood clot. Here are some **risk factors** that may increase your chance of developing a blood clot:

- Not being able to stand or walk for a long period of time. For example if you are hospitalized or have a long car or plane ride (greater than 5 hours)
- Having surgery
- Having certain medical conditions such as cancer, heart failure, inflammatory disorders
- Treatments such as chemotherapy and radiation
- Having a previous blood clot or clotting disorder
- Using estrogen hormone-based therapies or birth control pills, patches or rings

The following are risk factors when combined with the others listed above:

- Being obese
- Heavy smoking

Did you know?

Cancer and cancer treatments increase substances in your body that cause your blood to clot more than normal. This is why patients with cancer are at higher risk of developing VTE.

How can blood clots be prevented?

- Exercise. Weight bearing exercises can help stop clot formation. If you have been sitting for a long time, stand up and take a break to stretch your legs. This is a good idea to do on long car or plane rides (greater than 5 hours).

- If you are staying in the hospital or plan to have surgery, tell your doctor if you have a history of blood clots. Ask about preventative measures for blood clots if you are admitted to hospital.

- Wear compression stockings if your doctor has recommended or prescribed them (see page 8).

- Make lifestyle changes. These can generally improve your health and may slightly decrease your risk of blood clot:

  → Maintain a healthy body weight if you can. Ask your doctor if you're not sure what a healthy weight is for you.

  → Drink 6 to 8 glasses of water every day.

  → Do not smoke.

How are blood clots diagnosed?

- When a blood clot is suspected, your doctor will ask you about your symptoms and examine your legs and lungs.
- Sometimes blood tests are needed.
- A blood clot is confirmed by using scans to see the blood vessels. These include a lung scan or CT scan of the chest (for PE) or an ultrasound of the leg (for DVT).
- It is important to make a quick diagnosis so that treatment can be started.

Treatment for Blood Clots

The main treatment used is a medicine that thins the blood. This is called a **blood thinner** or an **anticoagulant**. This medicine can be given as a pill, an injection under the skin, or an injection into a vein (intravenous or IV). Normally, cancer patients get an injection under the skin. If you need instructions on how to self-inject, go to page 14.

How does a blood thinner work?

Blood thinners will not get rid of the clot, but will stop it from growing bigger. Over time, the body will absorb the clot. Anticoagulants also help to stop new clots from forming and will decrease the chance of a leg clot moving to the lung.

What type of blood thinner will I get and for how long?

The type of blood thinner you get and length of time you will need it depends on:

- Why the clot formed (your risk factors, page 5)
- Your risk of bleeding

What happens if I cannot take a blood thinner?

If there is active bleeding, recent major bleeding or need for emergency surgery, blood thinners cannot be used immediately. Your doctor will discuss your options with you. In very specific circumstances, this may include a small surgical procedure that places a temporary “filter” to catch clots before they get to the lung.

Other treatments for blood clots

Compression stockings, made of a special elastic fiber, help squeeze the blood up your leg and can be used with or without blood thinners. This squeezing action helps return blood to your heart and decreases swelling and pain in your leg.

It is important to have the right fit and weight of

- stocking, otherwise the stockings may not help prevent blood clots. Your doctor will prescribe one for you.

If you are staying in hospital or going in for surgery, you may get pneumatic compression stockings (PCS). These will help to push the blood through your legs while you are in the hospital, helping to decrease swelling and improve circulation.

Side Effects of Blood Thinners

If you are taking a blood thinner, you will be at a greater risk of bleeding. Bleeding can be minor, such as with small cuts and scrapes. These will usually stop on their own if you apply pressure to the site. **Major bleeding is serious and requires you to stop your blood thinner and go to the nearest emergency department** (see page 10).

Please check with your pharmacist for other, less common side effects and interactions with your other medicines.

Major Bleeding — Signs and Symptoms

- Blood in your stool (bright red or black and tarry looking)
- Blood in your urine (pink or brown color)
- Blood in your vomit (may look like coffee grounds)
- Blood when you cough (foamy pink or red)
- Bruises or swelling for no apparent reason
- Bleeding that lasts longer than 20 minutes

If you are taking a blood thinner, it is a good idea to wear a medical alert bracelet.

Other reasons to go to the EMERGENCY room immediately

- Sudden or severe headache, problems seeing, talking or walking.
- If you suffer a head injury, even if you cannot see any blood, you should be examined for internal bleeding.
- Signs of an allergic reaction such as itching or hives, swelling in your face or hands, swelling or tingling in your mouth or throat, chest tightness, or trouble breathing.

What can I do to help prevent bleeding?

- Avoid using ASA (acetacylic acid), such as aspirin, and non-steroidal anti-inflammatory medications, such as ibuprofen, unless your doctor tells you it is okay to take these medications.

- If you drink alcohol, make sure it is in moderation (please check with your health care provider for what that means for you). Alcohol with a blood thinner will increase your risk of bleeding.

If you have **major bleeding,** **stop** taking your medication and go the nearest **emergency room.**

Other Things to Know about Blood Thinners

- Take/inject your blood thinners at the same time each day. If you miss a dose, take it as soon as you remember. Skip the missed dose if it is almost time for your next scheduled dose. **Do not** use extra medicine to make up the missed dose.

- Even if you don't think it's important, tell all of your healthcare providers that you are on a blood thinner. This includes your dentist, podiatrist, gynecologist or other.
- If you need surgery, your doctor may stop your medication for a little while to reduce your risk of bleeding during your surgery.

Did You Know?

Sometimes prescriptions, over-the-counter medicines, vitamins, anti-oxidants, or herbal medicines may increase your risk of bleeding or cause problems with the medication you take.

Always tell your doctor what medicines or supplements you already take or plan to take.

Post-Thrombotic Syndrome (PTS)

Post-thrombotic syndrome (PTS) is a long-term (chronic) condition that can happen after a blood clot in your leg. The veins can become damaged or the clot can keep blood from going back to your heart.

What are the symptoms for PTS?

- Leg swelling that doesn't go away completely
- Pain, pressure, heaviness, tightness, cramping, tingling or leg tiredness that doesn't go away
- Skin that becomes hard, flaky, dry, and itchy
- Skin that becomes darker in colour
- Spider veins become visible
- Sores (skin breakdown or ulcers)

What do I do if I notice any of these symptoms?

Make sure you have your leg checked by a healthcare provider. Your symptoms may be similar to when you first developed a blood clot. It’s important to make sure that it is PTS and not a new blood clot.

Is there anything I can do to prevent PTS?

- Preventing new or repeat blood clots in the same leg (see page 6)
- Taking your blood thinners correctly
- Using compression stockings can help to decrease swelling and symptoms of PTS

If you must give yourself a subcutaneous (SC) injection, please follow these steps:

Step A

Setting up for your self-injection

1. Find a working area that is comfortable with lots of light and self-inject at the same time each day.

2. Medicine used to treat blood clots is clear and has no colour. Unless your caregiver tells you to, **do not** use a medicine that:
    - is cloudy
    - has anything floating in it
    - has expired
    - has colour

3. Use disinfecting wipes or soap and water to clean your work area. Lay out a clean towel to use as a work surface.

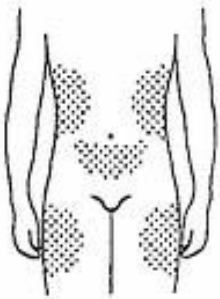
4. Wash your hands well with soap and water or an alcohol based hand sanitizer.

5. Get your supplies as needed:
    - Vial (medicine) or pre-filled syringe
    - New syringe (if needed)
    - 2 antiseptic swabs
    - Sharps container

Step B

Choosing and preparing your injection site

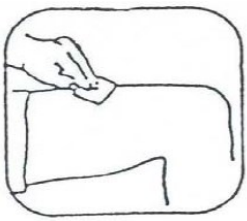
1. Find a site for your injection on your abdomen or leg. Avoid areas that are bruised, red or tender, hard, scarred and avoid the belly button area. The picture shows examples of where you can inject on your body.



Remember…

Rotate or change injection sites each time you give yourself a needle. This helps the medicine absorb better and causes less damage.

2. Clean the injection site with an antiseptic swab. Use circular or back and forth motions starting at the site and moving out to a 10 cm (4 inch) area. Wipe for at least 15 seconds. Let the area air dry for 15 seconds. Keep the used swab nearby.



Step C

Preparing the dose

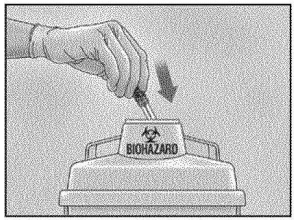
If you have a pre-filled syringe, skip Step C and go to Step D on page 19.

1. Check the label and make sure you have the right drug.

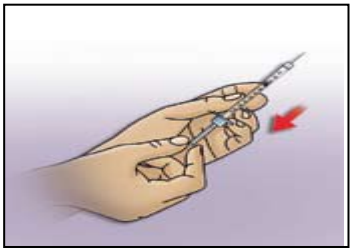
2. Take the plastic cap off the vial if it is a new vial. **Do not** remove the rubber stopper. Gently roll the bottle in your hands. Do not shake it.

3. Clean the rubber stopper with a new antiseptic swab and let it air dry.

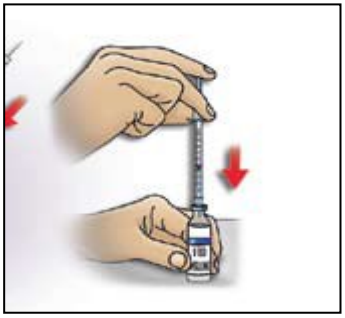
4. Look at the syringe packaging. **Do not** use the syringe if the package is torn or damaged. If it is damaged, get a new one and throw the damaged syringe in the sharps container.



5. Keep the needle cover on. Pull back the plunger and draw air into the syringe. The amount of air drawn into the syringe should be the same amount as the dose of medicine prescribed by your doctor.

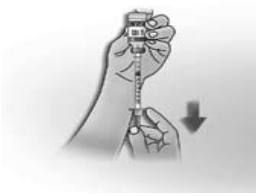


6. Pull the needle cover straight off.
7. Keep the vial on a flat surface like a table and put the needle into the rubber stopper.



8. Push the plunger of the syringe down.

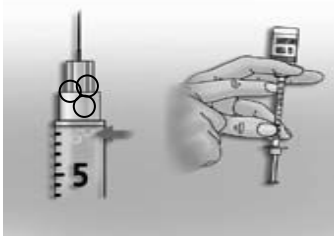
9. Leave the needle in the vial. Turn the vial upside down and make sure that the tip of the needle is in the medicine.



10. **Slowly** pull back on the plunger and let the medicine enter the syringe until you have the dose prescribed by your doctor.

11. **Before you take the syringe out of the vial**, check the syringe for air bubbles. Air bubbles are harmless but can lower the dose you should be receiving.

    To remove the air bubbles:



    - Gently tap the syringe until the bubbles float to the top of the syringe barrel.
    - Gently push the plunger, forcing the air out of the syringe.
    - Pull the plunger back to the number that correctly matches the amount of your dose.
    - Check again for air bubbles and repeat if you need to.

12. Take the needle out of the vial.

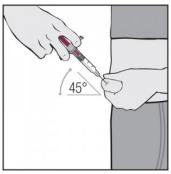
13. Double check for your correct dose.

Step D

Injecting the dose

1. Hold the syringe in the hand you will use to inject yourself (if it is a pre-filled syringe, check the label to make sure you have the right drug).
2. Use the other hand to pinch the skin of the prepared injection site.

3. Hold the syringe like it's a pencil or a dart straight up and down (90° angle) or if you have less fatty tissue, hold the needle at a slight angle (45°) to the skin. Push the needle all the way into the pinched up skin.



4. Continue holding the skin. **Slowly** push down on the plunger all the way until the medicine is gone from the syringe (**at least 30 seconds**).
5. Pull the needle out of the skin at the same angle it went in.
6. Apply gentle pressure with the antiseptic swab for at least **15 seconds or until the bleeding stops**. Do not rub or massage the area.
7. **Do not** put the cap back on the needle. Put the needle in the sharps container.

Points to Remember

Need to Know:

- Learn to recognize the symptoms of a blood clot! (page 4)
- If you have **major bleeding**, go to the nearest emergency department right away (signs & symptoms, page 10)

Nice to Know:

- Tell all of your healthcare providers if you are taking a blood thinner
- Ways to prevent blood clots from forming (page 6)
- Ways to prevent bleeding (page 11)
- How to give yourself a subcutaneous injection (page 14)
- If you are taking a blood thinner, wear a medical alert bracelet with this information

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For more information, please ask your healthcare provider.