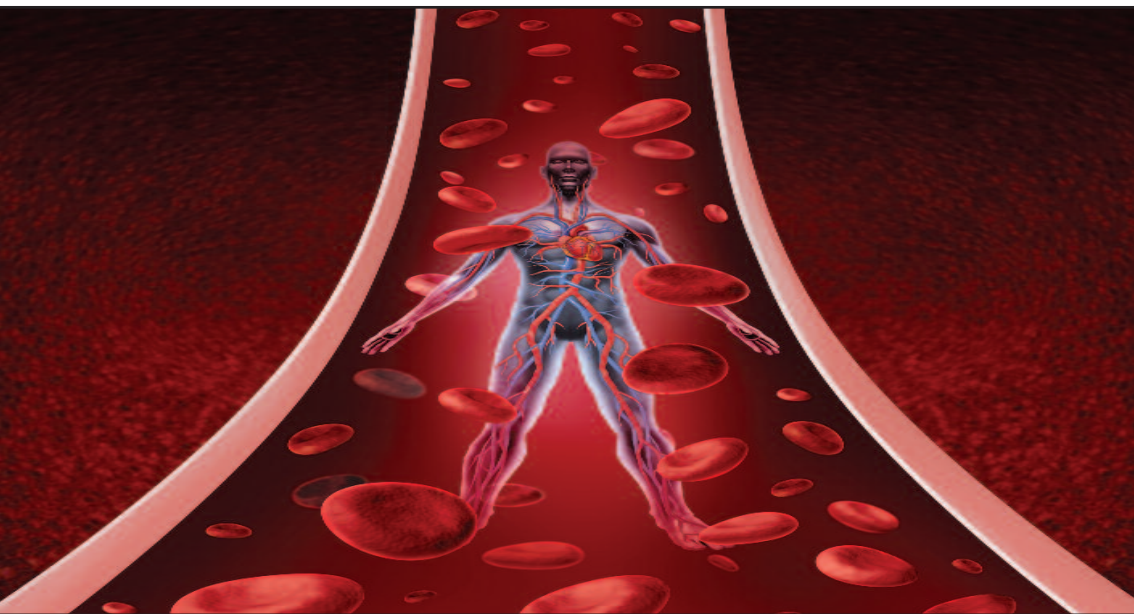


Irish Haemophilia Society



Veincare



INTRODUCTION

Home treatment and prophylaxis has become a way of life for people with haemophilia, therefore it is very important to look after your veins. While self-infusing may be challenging for some, you are the best person to administer factor replacement therapy. This vein care booklet is packed with information that we hope will help.

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WHAT ARE VEINS, AND WHAT DO THEY DO?

A vein is an elastic blood vessel that transports blood from various regions of the body to the heart. Veins can be categorised into four main types:

pulmonary, systemic, superficial and deep veins.

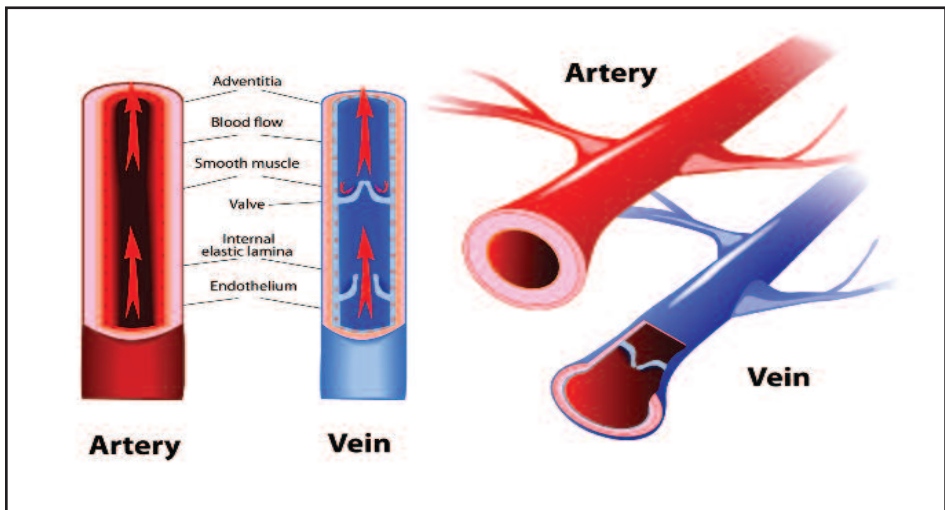
- **Pulmonary veins** carry oxygenated blood from the lungs to the left atrium of the heart.
- **Systemic veins** return deoxygenated blood from the rest of the body to the right atrium of the heart.
- **Superficial veins** are located close to the surface of the skin and are not located near a corresponding artery.
- **Deep veins** are located deep within muscle tissue and are typically located near a corresponding artery.

A vein can range in size from 1 millimetre to 1.5 centimetres in diameter. Veins have a bluish colour, which is visible through the skin, because they have thin walls. Veins lack muscle in their walls, are pliable and elastic, and usually have plenty of leeway to move within surrounding tissue.



The difference between veins and arteries:

VEINS	ARTERIES
<ul style="list-style-type: none"> • Carry blood to the heart 	<ul style="list-style-type: none"> • Carry blood away from the heart
<ul style="list-style-type: none"> • Carry carbon dioxide and waste products 	<ul style="list-style-type: none"> • Carry oxygen and nutrients
<ul style="list-style-type: none"> • Colour of blood is more blue 	<ul style="list-style-type: none"> • Colour of blood is more red
<ul style="list-style-type: none"> • Have thinner walls and valves which prevent back flow 	<ul style="list-style-type: none"> • Have thick elastic walls which pulsate with each heartbeat
<ul style="list-style-type: none"> • Low pressure 	<ul style="list-style-type: none"> • High pressure
<ul style="list-style-type: none"> • Generally they lie closer to the surface of the skin 	<ul style="list-style-type: none"> • Lie deeper under the skin



PICKING A VEIN FOR SELF-INFUSING

When selecting a vein for self-infusing the ideal veins are:

- Straight
- Firm
- Round
- Elastic / Bouncy
- Engorged / Puffed up

Avoid veins that are:

- Hardened
- Bumpy
- Flat

WHAT SHOULD I DO IF I CANNOT FIND A VEIN?

If you have difficulty finding a vein to use, try some of these tips:

- Soak the arm in warm water for five minutes to make the veins bigger. You can also run warm water over the forearm and hand before starting.
- Wrap a warm towel over the forearm or hand before starting.
- Gently massage the area over the chosen site.
- Hang the arm down and slowly open and close the fist.
- Put the tourniquet on while the arm is hanging down. Slowly pump the fist and then bring the arm back up.

If you regularly have trouble finding a vein, it might be worthwhile talking to your Haemophilia Treatment Centre about starting an exercise programme to build up your veins.

If you have re-constituted your factor concentrate, and you fail to get your vein, the following are your options:

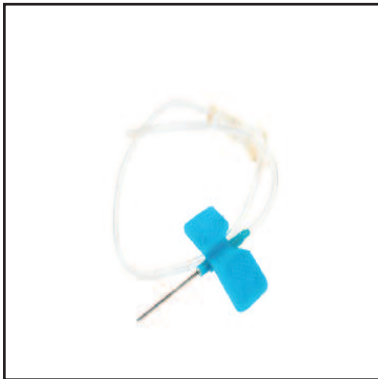
- Attend your Haemophilia Treatment Centre.
- Ask for help from a fellow person with haemophilia who self infuses.
- Attend your GP or GP practice nurse.

(Note: If you have already re-constituted your factor concentrate, you must bring the bottles with you so that the person administering the product will identify what is in the syringe.)

PREPARING FOR SELF-INFUSING

Items needed for self-infusing:

- A tourniquet
- Alcohol wipes
- Butterfly needle
- Tape
- Syringe
- Factor concentrate
- Sharps container



Butterfly needle



Tourniquet

Preparation

- Make sure your hands have been washed and ensure the area is clean.
- The relevant limb should be adequately supported on a stable surface below heart level to allow gravity to enhance venous dilation. This causes blood to pool and veins to distend. Lightly tapping or gently stroking the vein along its length in a downward direction will also cause venous distension. Another simple, effective way to dilate veins consists of alternately clenching and relaxing your fist.
- Feel the veins to see how big they are, and in which direction they are going, choosing ones that are straight. Start by placing one or two fingers over the vein and press lightly. Your thumbs should not be used as they are less sensitive.
- (6) • Apply a tourniquet two inches above the potential site for one minute only.

- Allow some time for the vein to become more prominent.
- Select the vein, clean the skin with an alcohol swab in a downward stroke, and allow skin to dry.



Preparing for self infusing



Mixing the factor



Drawing into the syringe



Applying tourniquet

- With the vein identified, the tourniquet applied and the factor ready, hold the butterfly wings and insert the needle into the vein with the bevel facing upwards.
- You should use veins in the inside creases of the elbows, or forearms, and backs of hand, as these are the most accessible and convenient sites. Typically a healthy vein has a full and resilient or “bouncy” feel. Most people with haemophilia say they prefer using veins in the elbow region as needle marks are less visible compared to other areas.
- When there is blood flash back, remove the tourniquet and inject the factor concentrate slowly.
- Once this is complete you can withdraw the needle, but make sure to put pressure over the vein with a piece of cotton wool for two or three minutes. Then place a plaster on the site.



Inserting the needle

VEIN EXERCISES

Maintaining good healthy veins for infusions is essential. This can be achieved by doing some simple exercises.

Exercise One

Squeeze a sponge ball in your hand. Start with ten squeezes daily and build up to 50 squeezes per hand daily. This exercise helps to develop the supporting muscles.



Exercise One

Exercise Two

Place a tourniquet around your upper arm, tight enough so that your veins stand out after a few minutes, but not so tight that you can't feel a pulse at the inside elbow. Squeeze your fingers in and out until your arms get tired. Rest a little, and then repeat the exercise again. If you do this frequently, it will improve your veins.

You might ask how these exercises improve your veins. When you do these exercises your muscles tighten, clamping off veins that run through them. This makes all the blood that flows into the arm return through surface veins. This causes veins to become larger and stronger, making them easier to find and use. Remember, it's like any other exercise. It only works if you do it regularly, and it will certainly help with your infusions.

VEIN ROTATION

When you insert a needle in your skin, it leaves a small hole that needs to heal. The same is true with your veins. You can keep your veins in good shape if you let them heal before you self-infuse again. If you don't let your veins heal, you may be at risk of getting collapsed veins or infections.

Rotating your vein is recommended, whereby you let one spot heal while you use another. A vein usually takes a couple of days to heal, so it's best to use alternate veins.

VEIN TRAINING

Staff at your Haemophilia Treatment Centre can provide you with all the training you require in order to self infuse.



TIPS TO MAINTAIN HEALTHY VEINS

- Stay hydrated – make sure you drink plenty of fluids before you are due to have your infusion.
- Stay warm – if you are cold, your veins will constrict and will be much more difficult to find and access. You could wrap your arm in a hot towel for about ten minutes; this will also help veins enlarge and become more visible.
- Rotate sites if possible to give your veins a chance to recover, keep track of which vein is used and when.
- Never put pressure on the site before, during or when withdrawing the needle.
- Make sure you apply a sterile dressing to the site for a minimum of one hour after infusing.
- If a health care professional needs to access your veins for blood sampling or to administer treatment, you should inform them what veins are good, after all you know your body better than anyone and it will save you some bruises.
- Relax and make sure you are comfortable.
- Dangling your arm over the edge of the bed/chair for ten minutes before you access your veins will allow gravity to increase blood flow to the limb.
- Squeeze a rubber ball, or flap your arms up and down to increase blood flow.
- Ask the staff at your Haemophilia Treatment Centre to recommend some arm exercises.

Remember, practice makes perfect, everyone misses now and again.



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