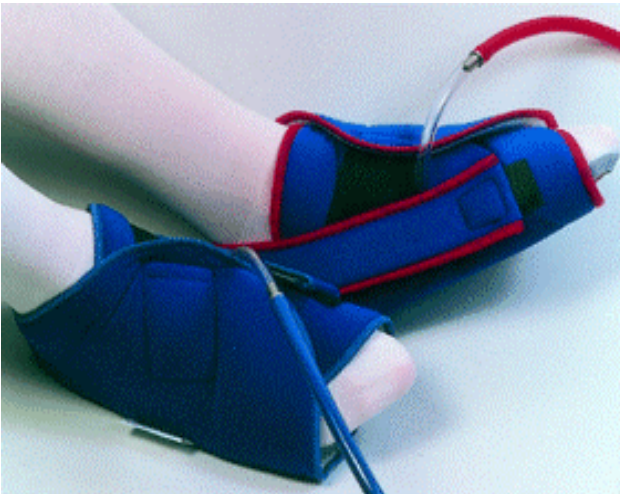


# The A-V Impulse System<sup>®</sup> from Novamedix

## Notes for patients



If you are entering hospital for an operation your surgeon may decide to include the A-V Impulse System as a part of your treatment. You might hear this device called the “foot pump”.

It includes a pair of ImPads<sup>®</sup>, like open toed slippers, that wrap around your feet. These are attached by 2 air hoses to the controller.



This System will play a vital role in your successful recovery. The following pages will explain how.

## The Natural Process

Your heart pumps blood through your arteries to every part of your body.

Veins then carry this blood back to your heart.

However it is a long way from your feet back to your heart, so nature has provided you with a return pump in your foot.

In the sole of every foot is a collection of large veins known as the venous plexus.

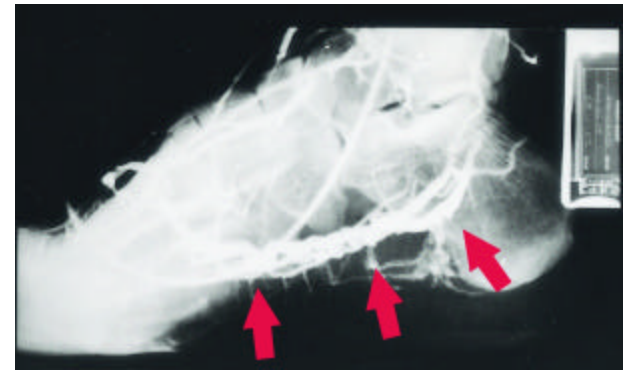
These veins naturally fill with blood. When walking, each time your foot hits the ground it is flattened, stretching and squeezing the venous plexus. This pumps blood back up through the veins to your heart.



A diagram of the foot showing the venous plexus

## The Natural Pump in Your Foot

This X-Ray shows the foot just before it is pressed against the ground. The venous plexus can be clearly seen filled with blood.



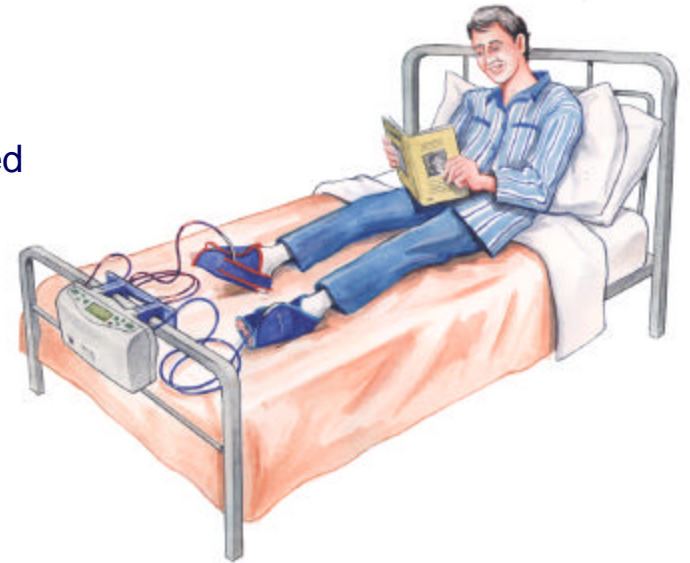
When the foot is pressed against the ground, the venous plexus is emptied (shown in the X-Ray) sending the blood through the veins in the leg and back to the heart.



## After your Operation

During your stay in hospital you may be spending much of your time in bed or sitting and will not be able to walk as much as usual.

As a result your blood will be moving more slowly.



If blood is not kept moving, it can become sluggish and clot inside your veins. This clotting mechanism is known as thrombosis and surgery can increase its likelihood.

Blood clots can be dangerous or may complicate your condition.

If untreated thrombosis can be troublesome as well as painful.

## Why the A-V Impulse System will Help

After your operation when you are unable to move around much, the A-V Impulse System takes over.

When you have been fitted with your ImPads they will be connected to the controller. Then by alternately inflating, they will squeeze the bottom of each foot. In this way the device mimics the effect of weightbearing and will keep your blood moving.

You should feel this squeeze on the sole of your foot, in the middle of the arch. The sensation may seem a little strange at first, but you will quickly grow accustomed to it and come to find it comfortable and quite reassuring.

This treatment is an important part of your recovery and will help to reduce your chances of a blood clot. Please try to use the device whenever you are sitting, lying down or sleeping. However there is no substitute for walking, so please try to get up and about as much as possible.

Lastly, may we wish you a speedy recovery and remember that if you have any questions your nursing staff are fully trained and will be pleased to help.