

DVT-7700 SLEEVES

Limbs pressurizing circulation device



COMPRESSION SYSTEM PUMP, SEQUENTIAL



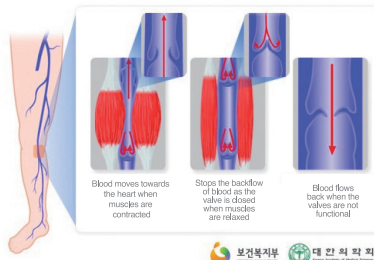
What is deep vein thrombosis?

Summary

The blood of our body returns to the heart after passing through artery and vein. We call it artery that sends the blood with high oxygen content to each part of the body according to cardiac impulse, and vein that sends the blood with wastes and carbon dioxide back to the heart.

Blood in the artery is circulated by the power of heart, however, it is the muscle of arms and legs that pressurize the vein to send the blood back to it. If the muscle is not moving, blood may flow backward, however, 2 valves in the vein stop the backflow of it.

<Picture, Blood circulation of the vein>

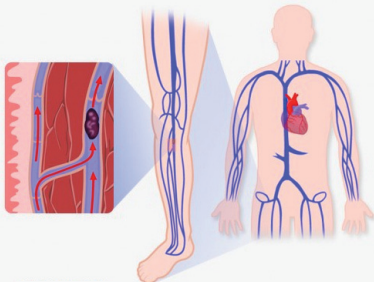


1 Blood circulation of the vein

The vein is composed of superficial venous, which is located right under the skin, deep vein surrounded by muscles, and communicating vein that connects these two.

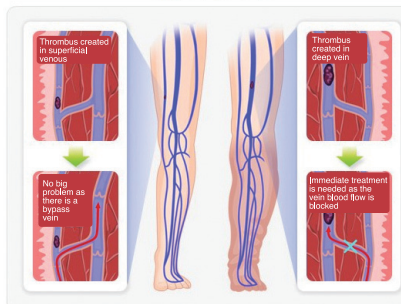
Thrombosis means that blood circulation to the heart is interrupted as the blood is clotted in blood vessels, and the clotted blood is called thrombus.

The thrombus created in superficial venous is not a big problem, however, the one in deep vein is a serious disease that should be treated immediately.



1 Types of vein

<Picture, deep vein thrombosis>



1 Deep vein thrombosis

This disease occurs in the veins of calf and thigh, however, it may also occur in that of pelvis and arm. It occurs in the leg in most cases.

In Korea, 1 out of 1,000 people has deep vein thrombosis, and the number of patients is increasing due to aging, westernization of food habit, increase of cancer patients and the patients who have an operation.

Causes and symptoms

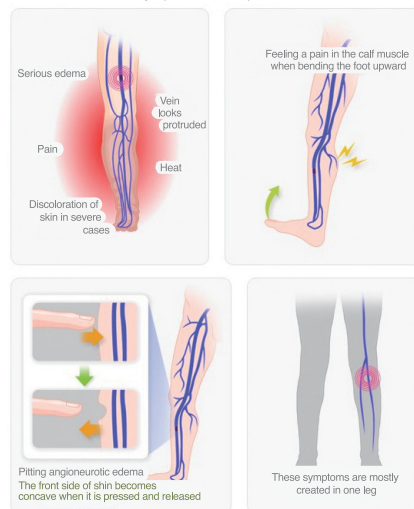
1. Causes

People who have risk factors as follows can easily have deep vein thrombosis.

- If they are aged
- If not moving for a long time, taking a long flight or hospitalized
- People who once had deep vein thrombosis
- People whose blood is easily clotted by nature
- If injured or had an operation
- If having a cancer: Cancer creates the substances that make the blood easily clotted
- Pregnancy
- Birth control pill
- Some of heart surgeries
- Obesity
- Other diseases making the blood easily clotted: Congestive heart failure (It is a disease that may be occurred as the blood is concentrated in lungs or other organs because the heart loses its function gradually.), myocardial infarction (It is a serious disease that may be occurred if thrombus is created in the coronary artery that supplies nutrition to the heart, and if gangrene and infarction are occurred in the overall heart muscles due to circulatory disturbance caused by coronary arteriosclerosis, and becomes in a state of paroxysmal shock), nephrotic syndrome (It is a disease which can be occurred when the kidney is not functioning), inflammatory bowel disease, systemic lupus erythematosus (Autoimmune disease creating diverse symptoms in the skin, joints and other organs. It is also called SLE.)

2. Symptoms

<Picture, Symptoms of deep vein thrombosis>



1 Symptoms of deep vein thrombosis

Followings are the symptoms of deep vein thrombosis.

- Seriously swollen and tightened, all of a sudden.
- Feeling a pain when walking, or even doing nothing in severe cases.
- Skin turns red or blue in serious cases
- Vein looks protruded as it gets bigger.
- Feeling a heat on the skin
- Feeling a pain in the calf muscle when bending the foot upward.

These symptoms are mostly created in one leg.

Complications

1. Pulmonary emboliform

It is a disease occurring when a part of thrombus is broken away and blocks the pulmonary artery, and 90% of them are occurring in the leg.

It is the most fatal complication of deep vein thrombosis, and it is known that 30% of untreated deep vein thrombosis is developing into symptomatic pulmonary emboliform.

There is a case of not having any symptoms, however, the common ones are out of breath, pain in the chest, bloody phlegm and sudden death, in serious cases.

If deep vein thrombosis is reoccurred even after a treatment with anticoagulant, or not possible to have a anticoagulant treatment, a filter may be implanted in the abdominal postcava, which is connected to the heart, to prevent fatal deep venous thrombosis.

2. Post-thrombotic syndrome

If deep vein thrombosis is not treated immediately, the vein may be blocked by thrombus, or the vein blood flows backward as the valvula venosa becomes not functional, and it may cause venous hypertension.

Accordingly, you may have a pain or swollen leg when walking even a short distance, and experience a discoloration of skin in gray, or skin ulcer that cannot be easily cured.

Fibrinolytic treatment may be used to prevent and mitigate the symptoms, and a high elasticity pressurizing stockings may be worn to prevent the backflow of blood, and mitigate the symptoms like swollen leg.

Prevention

1. Preventive measures when a normal person is having a long journey

When having a long journey in a narrow place such as plane, train and vehicle, a thrombus may be created as the vein blood becomes stagnant since it is not possible to move the calf muscle. To prevent this,

- Drink enough water before or while traveling.
- Avoid taking caffeine or alcohol while traveling.
- Avoid sleeping pills when traveling
- Walk on the alley of the plane
- Move your ankles up and down while sitting on the seat.
- Avoid the clothes that tighten your leg or waist.
- For the people who have a risk factor for deep venous thrombosis, it is recommended to wear a high elasticity pressurizing stockings or take heparin before getting on board.

2. Preventive measures for hospitalized patients

1) Treatment for preventing thrombosis is recommended due to the following reasons.

- Most the hospitalized patients may have one or more risk factors, and their prevalence rate of deep venous thrombosis is high.
- If it is not prevented, they may have a fatal pulmonary emboliform or post-thrombotic syndrome, and it is costly to cure this.
- There is a measure of preventing this effectively, safely and economically.

2) Risk, incidence and preventive measures for deep vein thrombosis of the hospitalized patients.

The incidence of deep vein thrombosis and its preventive measures are different depending on the disease or operation type of each patient.

According to the instruction for thrombus prevention released by the American College of Chest Physicians, the patients who have an internal disease or who had a simple surgery are classified as low risk group, and no specific prevention is necessary as their risk of deep vein thrombosis is less than 10%. These patients just need a fast and positive walking.

The patients of medium risk group are the ones who had an invasive, obstetrics and gynecology or urologic surgery, or the ones who are experiencing mobility impairments while having an internal disease, and their risk is 10-40%.

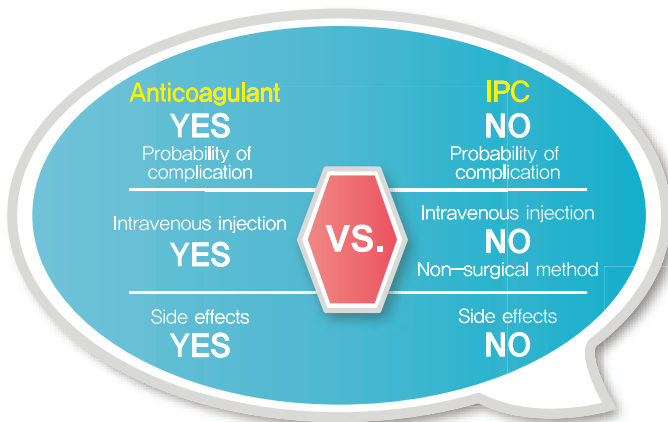
High risk group includes the patients who had a hip joint replacement (It is a surgery that replaces one or both damaged joints connecting the hip bone and thigh bone, with an artificial one.) or a total knee replacement arthroplasty (TKRA: It is a surgery that makes the patients, who cannot live an ordinary life as their knees are not functional due to diverse diseases or an external injury, and whose disease cannot be cured by using medication or physical therapy, possible to return to the ordinary life by correcting the deformation through implanting an artificial joint to reduce the pain, and make them possible to move their knee joints, while having their mental stability back, at the same time), and the patients who have a serious external injury or spinal damage. The risk is 40-80%.

For medium and high risk groups, it is recommended to administer anticoagulant to prevent blood clotting before and after surgery if there is not a risk of bleeding, and it is recommended to use high elasticity pressurizing stockings or a pressurizing device using the air, for the patients who have a possibility of bleeding.



Why IPC (Intermittent Air Pressurizing System)?

Comparison between drug treatment and conservative treatment



Safe and effective DVT prevention

For DVT treatment, drugs such as anticoagulant and clotbuster are used, and these drugs may cause side effects such as bleeding and high blood pressure. High elasticity pressurizing stockings or IPC (Intermittent Air Pressurizing System) is used as a conservative treatment. IPC prevents thrombus by pressurizing the venous blood intermittently for a long period of time, through using the air pressure, and it is an effective system for preventing deep vein thrombosis as it provides pause times that cannot be realized by high elasticity stockings.



Benefits of DVT-7700

- MODE** 4 operation modes
- PRESSURE** Possible to adjust the pressure
- TIME** Displaying the hours of use from 0-99
- LCD WINDOW** Adopting a large LCD window
- S** Possible to store the set values
- ↺** Recovery of the initial value
- Battery** Built-in battery will be operated when the power is disconnected



DVT-7700 Limb Compression System

Components of DVT-7700



DVT-7700



Thigh Sleeve



Calf Sleeve



Foot Sleeve

Specifications of DVT-7700

Product name	Limbs pressurizing circulation device	Type name	DVT-7700
Item permission number	Permission No. 14-464	Rated voltage	AC100~240V, 50/60Hz
Power consumption	30VA	Type	Class-1 device, BF-type device
Purpose and method of use	See manual	Foot pressure	110-140mmHg±20%
Storage method and precautions	See manual	Calf and thigh pressures	30-60mmHg±20%
Packing unit	BOX	Weight (Main body)	2.4kg
Country of origin	Republic of Korea	A/S center	+82-32-816-0553
Manufacturer	Wonjin Mulsan, Co., Ltd 2F, 89, Geomdan-ro, Seo-gu, Incheon, Rep. of KOREA		

Information registered at Health Insurance Review and Assessment Service

Item permission No. Heo 14-464

Product name : DVT-7700 , SLEEVE (Thigh, Calf, Foot)

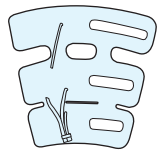
Medium classification: Intermittent air pressurizing pump for preventing deep vein thrombosis



Thigh Sleeve

CODE : **K7420420**

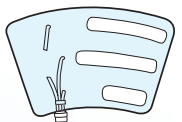
Part NO.	Size	Length
WJ-11	SMALL	60cm(23.65")
WJ-12	MEDIUM	70cm(27.60")
WJ-13	LARGE	91cm(35.85")



Calf Sleeve

CODE : **K7430420**

Part NO.	Size	Length
WJ-21	SMALL	48cm(18.90")
WJ-22	MEDIUM	61cm(24.00")
WJ-23	LARGE	65cm(25.60")



Foot Sleeve

CODE : **K7440420**

Part NO.	Size	Length
WJ-31	FREE	41cm(16.15")

