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Your Guide to Deep Vein Thrombosis

By Marcie Hoff

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About the Author

Marcie Hoff has written many stories from her imagination in the last few years but this is her first fact-based book.

Marcie wants this to help many people that, like her, thought that deep vein thrombosis was not something she needed to be concerned about – that it only affected “couch potatoes” and not reasonably active people like her.

But, a couple of close friends developed the illness and she realized that their lifestyle was very similar to her own.

When she saw the devastating effect on her friends and those closest to them, Marcie decided to put together this plain-speaking guide for the benefit of people that could be at risk – that’s almost everyone!

She was surprised to find how much misinformation there was about D.V.T., the simple measures which could reduce the risks and the importance of taking those precautions.

Marcie says that she has been as thorough as she could, but emphasizes that research is increasing, so people need to ask their own doctor who has the latest available information.

She believes that her guide will help people to ask the right questions of their doctor, sort good information from bad and better manage the risk and effects of a very serious disease, deep vein thrombosis.

What is Deep Vein Thrombosis?

D.V.T., or **Deep Vein Thrombosis** is the formation of blood clots on the walls of the deep veins in the lower body and legs. The blood, when it clots, can look a bit like a mass of jelly.

The word thrombosis means "formation of a blood clot".

Deep vein thrombosis is not always dangerous. Some small deep vein thromboses are fixed by our body's natural defenses, without us being aware of it.

However, there is a serious risk when the clot breaks off the vein wall and it is large enough to hinder one of your body's large veins, particularly the veins that carry blood from the heart to the lungs.

D.V.T. is when clots form on the walls of these veins. Although symptoms may not be apparent or seem significant, the potential risk of pulmonary embolism, where a clot breaks away and is transported through the body to the lungs or heart, causing death, means that every precaution must be taken.

The blood clots mostly occur in the thigh or calf. However, in rare cases deep vein thrombosis may occur in the collar bone, the armpit, the abdomen, the upper arm or pelvic region.

Some Facts about Deep Vein Thrombosis

- In the U.S.A., deep vein thrombosis has been reported as the second most frequent vascular (vein-related) problem.
- Around 600,000 people are affected by deep vein thrombosis every year in the U.S.A..
- It mostly occurs in people over the age of sixty, but it can affect anyone of any age.
- Early detection of deep vein thrombosis can prevent it escalating to pulmonary embolism.

Causes of Deep Vein Thrombosis

Deep Vein Thrombosis is due to the clotting of the blood in the deep vein.

The veins are blood vessels spread throughout the body and carry blood in them. At times, the blood in these vessels clot.

The Risk Factors for Deep Vein Thrombosis?

The main risk factors for D.V.T. include:

Inheritance of a blood clotting disorder: Some people inherit a rare genetic condition, which can lead to deep vein thrombosis (D.V.T.). **Factor V Leiden** is a genetic disorder that is responsible for abnormal blood clotting in the human body.

Prolonged bed rest: Any condition that involves a long bed rest; for example, paralysis or a stay in the hospital after surgery, may lead to D.V.T.

Vein Damage: If your vein has a damaged inner lining then the chances of your getting D.V.T. is higher. Inflammation of your vein wall (vasculitis) and certain medications increase the chances of deep vein thrombosis, for example chemotherapy.

Previous D.V.T. episode: A deep vein thrombosis (D.V.T.) damages the inner lining of the veins and, as a result, it increases the chances of you having another deep vein thrombosis in the future.

Surgery: Some medical procedures may increase the chances of developing deep vein thrombosis (D.V.T.).

For example:

- General anesthesia given to patients during surgery may dilate the veins and raise the chances of the blood pooling and then clotting.
- Surgeries that reduce the flow of blood to a certain part of the body may increase the chances of developing deep vein thrombosis (D.V.T.).
- Surgeries of the knee, leg, hip, calf, chest or abdomen.

- Orthopedic surgeries, for example hip replacement.

Surgery can increase the chances of deep vein thrombosis because there are chances of proteins, fats, and tissue debris moving into the veins. Often, prolonged bed rest is required after surgery. Surgery that takes longer than thirty minutes may have a higher risk of D.V.T. occurring.

Therefore, some patients who are to undergo surgery may be injected with heparin to lessen the chances of deep vein thrombosis.

Lack of Movement: This increases the chance of deep vein thrombosis because the flow of blood in the vein is slowed when one is immobile. So, the prospect of blood clotting increases.

The lack of movement also occurs in long flights or trains where the seats have lesser leg space. This is known as Economy Class Syndrome but all passengers have some risk where your legs are immobile and your feet may not be on the floor or supported. In this situation, the calf muscles cannot contract and this often results in the formation of clots.

It is advisable that passengers on long journeys walk up and down the aisle at least once each hour.

A person that routinely has a long period of sitting in front of a computer, for instance, is also running some risk of this condition.

Cancer: Certain forms of cancer increase the chances of blood clotting in the body, and there are some types of cancer treatments that may raise the chances of blood clotting in the body.

Of course, doctors are well aware of these potential risks and that's one reason that you should keep your doctor and any specialists that are treating you, fully informed about other treatments or conditions and your full medical history.

Using hormone replacement therapy or contraceptive pills: These both contain Estrogen, the female hormone which causes blood to clot easily. So, if you are using either, your chance of developing deep vein thrombosis may increase.

Heart problems: A person with a damaged heart has a higher risk of developing D.V.T., because their heart has a lower ability to handle any clots that travel from the lower parts of the body to it.

Catheter: When a pacemaker or flexible, thin tube (called a catheter) is placed in a central vein, blood vessels can be irritated and this may decrease blood flow and the body's ability to handle clots floating in the blood.

A history of D.V.T.: If you have had D.V.T. before, there is a greater chance of you suffering from the condition in the future.

Family history: If there is a family history of D.V.T., then you have a higher than average risk of developing the condition.

Obesity: Being obese or overweight increases the chances of deep vein thrombosis.

Smoking: Smoking increases the chances of blood clotting and this may increase the seriousness of a D.V.T. episode.

The Three Factors

Some studies report that there are 3 principal factors that influence the occurrence of deep vein thrombosis:

1. Venostasis, a condition where there is stagnant or reduced flow of blood in deep veins.
2. Injury to the walls of the blood vessel.
3. Hyper-coagulability, a condition where there is increased activity of the substance in the blood that controls the blood clotting mechanism.

Who is at Risk of Deep Vein Thrombosis?

D.V.T. may strike anyone of any age.

Some people have an increased chance of being affected by deep vein thrombosis:

- People with a history of deep vein thrombosis
- People with factors or disorders that make their blood thicken sooner than normal or people whose blood is thick.

There are certain inherited blood disorders, for example V Leiden factor, that clots the blood sooner than most other people.

- People that are undergoing hormone replacement therapy.
- People that are using contraceptive pills.
- People who have injured to a deep vein during surgery, or because of a fracture or other trauma.
- People who are immobile for a great length of time, whether it is bed rest after surgery, or because their movement is restricted while they travel a long-distance or for a long time.
- Pregnant women and those who are in the first six weeks after childbirth.
- People who are having, or recently had, treatment for cancer such as chemotherapy.
- People who have a central venous catheter, a tube that is placed in the vein during medical treatment for easy access to their bloodstream.
- People who are older than forty have an increased level of risk but, please remember, that D.V.T. may also occur at any age.
- People who use seats that keep their feet off the ground and below their hips when seated.
- People who are obese.
- People who smoke.

- Previous D.V.T. Episodes. If you have had D.V.T. before, there is a greater chance of developing it again if there are other causal factors.

Other Factors:

- Smokers are considered at a higher risk.
- If you are above the recommended weight, you are more likely to develop deep vein thrombosis.
- If you are traveling and your feet do not touch the ground while you are sitting.

Deep Vein Thrombosis in Children

Occurrence

Occurrence of deep vein thrombosis in the pediatric population is approximately 0.07/10,000 and 5.3/10,000 hospital admissions. Other studies and comparisons show a <1% deep vein thrombosis during childhood in cases after lower limb surgery and a relative absence of deep vein thrombosis in children having congenital thrombophilias.

Clinical Features

About 95% of deep vein thrombosis in children occurs as a signal of serious disease such as cancer, prematurity, surgery, trauma, or congenital heart disease. However, congenital prethrombotic disorders are found in <10% of deep vein thrombosis in children.

However, children are at the risk of developing deep vein thrombosis either at the age younger than one or in their teens. D.V.T. presents a similar clinical presentation in children as it does in adults.

Central Venous Lines

Forty percent of deep vein thrombosis in children and up to eighty percent in newborn babies occurs in the upper venous system. This is secondary to the use of central venous lines that are used for a short time or long-term supportive system in children who require total therapy for cancer. This needs anesthesia with each replacement and can be complicated because of pulmonary embolism. This may also cause the syndrome of superior vena cava and chylothorax. This condition can destroy the upper venous system and lead to a severe postthrombotic syndrome.

Deep Vein Thrombosis in Elderly People

Deep vein thrombosis is common in elderly people.

There is some evidence that people over forty years of age have a greater chance of getting D.V.T.

Why Aging Raises the Chances of D.V.T.:

- The blood of the human body tends to thicken as we become older.
- Elderly people tend to sit in a particular place for a long period. This increases their risk of developing deep vein thrombosis.

- Elderly people have a slower rate of healing - they do not heal as quickly after an injury and may require more rest.

Causes of D.V.T. in Elderly People

Surgery

When surgery is performed on people over forty, the possibility of clots forming is greater because their blood is starting to become thicker than it was in their earlier years. This surgery may reduce the blood flow to the part of the body that was operated on.

During surgery, there is some chance that proteins, fats, and debris move into the veins of an elderly person.

They may have to rest in bed for a significant period and, if suitable exercise is not done, this can also increase the risk of D.V.T.

Immobility or Lack of Movement

With age, some people become less active. This may increase the chance of D.V.T.

How is Deep Vein Thrombosis Diagnosed?

The diagnosis of deep vein thrombosis is based on your physical examination, the results from the tests that your doctor performed or ordered and your medical history. Your doctor will take account of your medical condition, history and symptoms, and then consider the risk factors and advise you what treatment, if any, he believes is best for you.

Physical Examination

During your physical examination, the doctor will look for signs and symptoms of deep vein thrombosis while considering the possibility of other conditions. He or she will carefully check your legs, your heart, lungs and your blood pressure.

Medical History

The doctor will ask you about:

- Your overall health
- Your past medical conditions
- If you are on any prescribed medicines at the time of the check up
- Any recent injury or surgeries you might have had
- Whether you have or have ever been treated for cancer

Diagnostic Tests

Duplex Ultrasound

Duplex ultrasound, or Doppler ultrasonography, is a test that is commonly used to diagnose deep vein thrombosis. In this test, sound waves define the blood flow in your veins. Duplex ultrasound uses Doppler echo signals and echo sound to make pictures which your doctor can evaluate.

Duplex ultrasound involves these steps:

- A gel is applied to the leg where D.V.T. is suspected.
- The doctor passes a handheld device back and forth over the affected area of your leg. This device sends sound waves to the ultrasound machine.
- The computer then turns the sound waves into a picture of the inside of your leg.
- There is a monitor, which displays this picture. Your doctor can see the flow of blood in your leg through this picture and find out if there is a significant problem.

Venography

Sometimes, ultrasound does not provide good enough results from the veins in the calves. The doctor may use venography for such cases.

Venography is claimed to be the most accurate test, but venography is not commonly used because the process is relatively expensive and painful.

Also, the patient is exposed to radiation, which might further complicate the problem and cause other reactions.

Venography can identify:

- The extent of the problem
- The degree of the blood clot's attachment
- Location of the blood clot, and
- More information to help the doctor assess your deep veins.

A contrast solution is injected into the vein of the foot through the catheter. The dye travels with the blood to the veins of the thigh, leg and pelvis.

Then the X-ray of the leg is taken.

Movement of the solution reveals the condition of the blood clot in the vein. The obstructing blood clot in the vein can be seen as a dye-free area in the X-ray.

The entire process takes around thirty to forty-five minutes and may be performed in the hospital, laboratory, or in the physician's office.

Specialist skills are needed to perform venography and care is required to correctly interpret the results accurately.

Venography examines veins through an X-ray called the venogram.

You may need other tests to confirm whether or not you have D.V.T.

Other common tests used to diagnose D.V.T. include:

MRI or CT Scans

Both MRI (magnetic resonance imaging) and CT (computerized tomography) scans provide visual images of the veins and can show if any clot is present. Sometimes, while performing these scans in relation to other medical conditions and procedures, a blood clot is detected in the patient's veins.

A D-dimer test

The blood releases a substance when a blood clot dissolves. If this test reveals a high-level of that substance, it is an indication of you having a deep vein thrombosis.

Impedance plethysmography

In this process, the physician wraps the blood pressure cuff around the leg just above the knee. This process records the blood vessel resistance and changes in blood volume.

There are four electrodes, which are placed around the ankle and the knee, after which the physician inflates the cuffs. This process checks how

efficiently your vein returns to normal. This process may take your physician fifteen to twenty minutes.

Venous Ultrasonography

Because of problems sometimes associated with venography when used for the diagnosis of D.V.T., it is replaced by venous ultrasonography.

In this process, sound waves are used to detect the blood clot. The probe is placed over the deep veins of the leg and gentle pressure is applied to check if the veins will shut on a gentle squeeze.

It is easy to squeeze a normal vein, but a vein with a clot is more difficult to compress.

Correct Diagnosis is Vital

If you are diagnosed with deep vein thrombosis, then your physician will start will the treatment fairly quickly with anticoagulant drugs.

These drugs may sometimes cause internal bleeding for some patients, so physicians only start the treatment after the tests prove that you have deep vein thrombosis.

Sometimes, another test may also be carried out; a pulmonary arteriogram or lung perfusion scan. In this, a dye is injected to the artery, and it flows through the lungs. If there is any obstruction by the clot, it will be easily seen.

When to Seek Medical Advice

Deep vein thrombosis either causes minimal symptoms or may not cause any obvious symptoms at all. Only forty to fifty percent cases of D.V.T. show some obvious signs and symptoms, and the condition most of the time goes unrecognized.

The signs and symptoms may also vary according to the severity of your condition.

But, these symptoms or conditions might indicate a serious, even critical situation.

- Acute pain in the leg, ankle and feet followed by cramping, mostly while you are walking or standing
- Tenderness of the leg
- Tenderness in the calf region
- Swelling of the leg, ankle or feet
- Increase in temperature of the affected area
- Skin discoloration mostly bluish and redness
- Discomfort in the upward movement of the foot
- Leg fatigue
- Visible surface veins
- Pain or swelling in the arms or neck. It can occur because of the blood clot formed in your neck or arms

If you see any of the following conditions, you should seek immediate medical assistance:

Please note: Some of the examples may actually be a sign of other serious medical conditions in some instances instead of signs of D.V.T. They always should be checked to reduce the chance of your problem becoming an emergency.

- You have discomfort in your chest or an acute pain while coughing or taking a deep breath
- You feel dizzy or light-headed
- You faint suddenly without apparent reason
- You cough and bring up some blood
- You feel a sense of anxiety and nervousness for no apparent reason
- You have an unexpected shortness of breath

Deep vein thrombosis may cause swelling and pain in either one or both the legs, or, rarely, in the arms.

Sometimes, the affected area is tender and may have an increased temperature compared to the unaffected portion of the body.

Clinical diagnosis for deep vein thrombosis can be difficult. Often, only a specialist can confirm the case.

This is because many conditions have similar symptoms.

The symptoms which should be checked include:

- Muscle tears and aches
- Superficial thrombophlebitis, a condition where blood clots in the inflamed part of the vein near the body surface
- Varicose veins or blood vessels that are twisted and swollen abnormally
- Arthritis
- Blood clotting inside the arteries
- Cellulites, an infection of tissue under the skin
- Fracture of the bone
- Swelling in the hands and the feet

Sometimes, the most obvious sign of deep vein thrombosis may be chest pain, which might also be a sign of various other conditions.

Factors associated with blood clots and deep vein thrombosis

- Hormonal Factors
- Varicose Veins
- Poor circulation due to conditions such heart disease, recent heart attack or stroke.
- Long-term inactivity
- An extended bed rest

- Deep vein thrombosis occurs during long flight sessions, where the passenger has very limited space to move the legs.
- A vein injury can result in deep vein thrombosis. Vein injury may occur due to a blow to the legs, radiation treatments in cancer patients or surgery. Often, such injuries cause blockage or narrowing in the vein where the blood gathers and clots.
- Pregnancy increases the chances of deep vein thrombosis as the body has the natural tendency to preventing excessive bleeding at childbirth.
- Severe infection, some forms of cancer and liver disease may also cause deep vein thrombosis.

What Happens in Deep Vein Thrombosis?

If your doctor believes that your symptoms indicate you may be suffering from deep vein thrombosis then he will conduct or order tests to help confirm whether there is a problem with blood clots in your leg(s).

Many people with D.V.T. do not show any significant symptoms of this disease. Testing is important because early diagnosis and treatment can help reduce the risk of a loose clot traveling to the lungs or heart and causing pulmonary embolism which causes a significant number of deaths each year.

What happens after the clot forms?

Blood clots occur in veins of the calf and thigh muscles when you are inactive for a long duration.

When you stand up suddenly, your blood flow rate will increase within the vein and the clot may break away from the wall of the large vein. The dislodged clot may move towards your heart, with the chance of being pumped into the lungs where pulmonary embolism may occur.

This condition may obstruct flow of blood through the lungs and cause death.

Effects of Deep Vein Thrombosis

The most important cause of concern associated with deep vein thrombosis is pulmonary embolism. Pulmonary embolism is a condition where the arteries are blocked due to a blood clot or thrombus, which has traveled to the lung or heart from your body part, most often from a leg.

If not treated immediately, pulmonary embolism can prove fatal. Therefore, you have to be on guard when signs and symptoms of D.V.T. or pulmonary embolism occur.

Postphlebotic Syndrome

In about ten percent of people suffering from deep vein thrombosis, post-phlebotic syndrome, also called the post-thrombotic syndrome, occurs due to the damage done to your veins by the blood clot. This syndrome may show as skin discoloration and pain, or edema in the leg.

The blood clot over time

Treatment makes the clot stabilize and attach tightly to the inner wall of the vein. Therefore, the chances of the clot to dislodge and travel to the lungs diminish over time. In addition, our body also can produce blood factors that help the clot to dissolve. If the clot is located in the calf vein or in the superficial leg vein, the clot frequently dissolves totally.

However, ninety percent of large deep vein thrombosis patients with clots in the groin or thigh may end up with abnormal veins, despite careful treatment.

D.V.T.'s long-term consequences

A significant percentage of people that had D.V.T. may develop a long lasting (chronic) pain, swelling, scaling, and pigmentation in the affected leg.

A few patients may suffer from pulmonary hypertension, a condition that may disrupt the functions of the heart. The severity of the condition decides which medication is used to address the condition.

Some may need complicated surgery to remove blood clots attached to the inner lining or pulmonary artery.

In some severe cases, venous ulcers may develop.

Other possible complications may include eczematoid reaction, ulceration, purpura, dermatitis and pruritis.

Deep vein thrombosis may have fatal consequences if not detected and treated in a timely manner.

On the other hand, if it is diagnosed early, then deep vein thrombosis (D.V.T.) can be treated successfully in many people.

If the patient is regularly taking anticoagulants, the risk of D.V.T. is reduced.

More than twenty percent of patients have their D.V.T. recur within five years.

The chances of D.V.T. are greater when the patient has certain risk factors, such as:

- certain defects of blood coagulation in the body,
- cancer or
- if the person undergoes surgery.

Untreated D.V.T. (deep vein thrombosis) may be associated with ten percent incidence of symptomatic PE (Pulmonary Embolism).

With older patients, the casualty rate estimation for Pulmonary Embolism is between 1 to 5%.

If the person is treated with anticoagulants, then the chances of the person, developing Pulmonary Embolism following deep vein thrombosis may be lower.

Side effects of D.V.T.

Complications from Oral Anti-coagulants

Bleeding is the most common complication from oral anticoagulant drugs.

This bleeding may be due to the strength of the anticoagulation.

Some studies seem to indicate that the risk of bleeding reduces when the drug strength or amount is reduced.

Some other studies indicate that anticoagulant bleeding may be linked with concurrent administering of aspirin, which may impair the platelet function and produces gastric erosions.

The risk of bleeding may be heightened because of underlying clinical disorders and some studies advise that the risk of bleeding increased according to the patient's age. If a person is sixty-five years and above, has a history of gastrointestinal bleeding or stroke, and presence of a comorbid condition (for example, anemia or renal insufficiency), then the person may be at higher risk of significant bleeding.

If the drugs used include Coumadin® or are related to warfarin, usage and effects must be closely monitored.

Bleeding Management

If there is bleeding during treatment with an oral anticoagulant, the medical response will depend on three factors:

1. the severity of the condition,
2. INR (International Normalized Ratio – a mathematical way of standardizing results from the Prothrombin Time test, which shows how long the patient's blood takes to clot) during the bleeding period, and
3. the course of the prescribed anticoagulant therapy.

If the INR range is above the usual therapeutic range then the treatment is not continued.

The doctor will decide if that treatment should be resumed after the bleeding stops completely, maybe with a lower strength preparation.

If the INR is below, or within, the therapeutic range then the bleeding source will be investigated, especially if the bleeding is likely to be from the urinary tract or a gastrointestinal source.

Precautions to Reduce D.V.T. Episodes

Treatment of D.V.T. begins with self-help techniques that you can incorporate into your daily routine at home. They include:

Be as active as possible: If bed rest is unavoidable, such as after surgery or because of medical conditions or pregnancy, it is strongly recommended that you look for ways to keep your legs as active as possible.

You may try swinging your legs over the sides of the bed a few times a day.

You may also be able to push your knees up and down briefly from time to time.

Reduce or quit smoking: Smoking increases the possibility of deep vein thrombosis in people who are at risk. If you do not smoke then do not start. If you do, it is highly advisable that you quit.

Exercise: Exercising regularly is a good way to reduce the chances of blood clotting in your legs. Ask for advice from your physician about the kind of exercise that suits you and will reduce the chance of deep vein thrombosis.

Be active while traveling: The risk of developing blood clots while you are on a long trip may be lowered by taking simple precautions and being aware of those factors which could increase your risk.

When you have to travel for a long duration, see your doctor first and ask for advice about reasonable precautions you should take, medicines you might carry etc.

You should try to get up and walk about as often as possible so that the blood in your legs does not slow its travel.

If you are traveling by air, at least flex your ankles and wiggle your toes. There are also devices which claim to enable you to exercise even in the confines of your plane seat. Be sure to check for testimonials and independent reports about any device that you consider buying.

Do not cross your legs for too long.

Drink small amounts of water regularly.

Many airlines serve alcohol but it is best to avoid that because alcohol tends to dehydrate your body and may raise the risk of deep vein thrombosis.

Caffeine drinks (tea and coffee etc) and carbonated soft drinks also cause the body to excrete water. This can affect your level of brain function as well as increasing your risk of D.V.T.

Deep Vein Thrombosis Prevention

Precaution is Better than Cure

You can reduce the chances of developing deep vein thrombosis by:

- ✓ keeping a check over your health regime
- ✓ exercising regularly
- ✓ quitting smoking and
- ✓ taking measures to keep your blood pressure in check.

If you are in good shape, it is likely that you enjoy yourself more while on a holiday.

Prevention of deep vein thrombosis means preventing blood clots forming in the deep veins of your lower body and is very important. This is because the blood clot, which may form in your thigh or calf muscle, can break away, travel and clog a vital blood vessel in your heart or lungs.

Each year, many Americans are diagnosed with deep vein thrombosis. Out of every hundred people identified, about one will die from the effects of their D.V.T.

If you are at risk, take steps to prevent it affecting you.

Get regular checkups and adopt a healthy lifestyle.

- Exercise - you may indulge in bicycling, swimming and walking.
- Maintain a healthy diet and keep your weight in check
- If you are a smoker, consider reducing or quitting. You might try chewing gum. A nicotine patch or spray could make quitting easier for you
- Keep your blood pressure under control. If it fluctuates, get it checked and follow your doctor's advice.
- If you have any personal or family history regarding blood clotting, tell your doctor
- You might ask for suggestions on possible alternatives to hormone replacement therapy or your current birth control pill from your doctor
- If you are pregnant or planning a baby, ask your doctor about DVT preventive measures

Surgery, Post Surgery and While Confined to Bed

Your surgeon will assess your medical history, explain to you the risk of DVT, and decide the measures that are required to reduce your risk of deep vein thrombosis.

Your risk begins with the immobility that is associated with post surgery.

- If immobility is necessary then your leg should be elevated to the position higher than your heart. This will reduce the chances of swelling of the foot.
- Keep moving your legs. You may try swinging the legs from the sides of the bed frequently through the day. You may try to bend your knees too. Keep as mobile as possible, subject to your doctor's advice.
- Take the anticoagulants prescribed by your doctor before or after the surgery.
- During surgery, you may be required to wear a sleeve-like device on your legs to compress them and maintain the blood flow in the veins.
- Wearing compression stockings during surgery can regulate the flow of blood and may prevent blood pooling in the veins.
- Elevating the foot of the bed helps to avoid the blood clotting too.
- Within any limits required by your doctor, start moving around as soon as you can after the surgery, or even when you are ill.
- Usually, the sooner you get moving, the less chance you have of developing blood clots.
- Do some exercise of the legs and calves, as often as possible in line with what your doctor advises.

Treatment of D.V.T.

Treatment begins after careful assessment of the test results and your symptoms.

Your doctor has to decide the likelihood of:

- the clot growing or
- the clot breaking loose and moving to the lungs

The doctor's opinion, after reviewing the test results, will affect the medication and other treatment that you get.

If the clot is on the upper leg vein, your medication might continue up to 6 months. After that, your doctor will recommend the next step for you.

If your clot is in the lower leg vein then you might be using the medication for six to twelve weeks. The doctor may start the medication straight away or wait for twenty-four to forty-eight hours.

Clots that form in the deep veins in your legs and pelvis area may be potentially hazardous when they break off and travel to the smaller veins around the heart and lungs.

Deep Vein Thrombosis Medications

The main treatment form of deep vein thrombosis (D.V.T.) is anticoagulant medications. Rarely are any other forms of medication prescribed for the same.

Anticoagulants

Anticoagulants prevent formation of new clots and discourage the existing clots from enlarging. However, they have no effect over pre-existing clots.

The functions of anticoagulants are to:

- Treat the existing D.V.T.
- Prevent formation of blood clots that are associated with certain types of surgery.

- Prevent further formation of blood clots in people who are prone to D.V.T.

Heparin

Heparin is a medicine that thins the blood. Thinning of the blood prevents blood from clotting and prevents the pre-formed blood clots from enlarging. Heparin is injected into the vein or under the skin.

Patients that are getting Heparin often need to stay in the hospital as the condition and the effect has to be closely monitored.

There are two types of Heparin:

- LMWH or Low molecular weight Heparin, one can inject this type of heparin at home. This is less expensive and convenient.
- UH or Unfractionated Heparin, this type of heparin is given intravenously or through the vein. Therefore, it requires monitoring and should be given under medical care

Heparin starts its effect immediately and is continued with the patient until the medication containing warfarin starts its therapeutic effect.

Warfarin

Warfarin is the main active ingredient of oral anticoagulants, for example Coumadin®.

There are studies underway to check whether a low-dose warfarin medication might be as effective as the conventional dose and whether it decreases the chances of bleeding which are present with current recommended dosages.

The duration of the medication is still being researched. Generally, treatment lasts for three to six months. But, the duration of the medication depends on various factors:

- If your risk factor for developing deep vein thrombosis is a short-term one; for example because of surgery, then the oral anticoagulant therapy will be for a short period.

- If you have a continuous risk factor such as cancer or recurrent blood clots, then the anticoagulant treatment continues while the risk factor is present.
- If you have a genetic blood clotting disorder, then you may have to be on an oral anticoagulant for an indefinite period.

Thrombolytics

Thrombolytics are medications that dissolve the blood clots rapidly. They are used to treat large clots or clots that have formed recently and are causing severe symptoms.

Application of these medications can increase the chances of bleeding, so they are used for specific situations, under strict medical supervision.

Thrombolytics are used in extreme situations.

Thrombin Inhibitors

Thrombin inhibitors are new medications that interfere with thrombin's action. Thrombin is necessary for blood to clot.

Aspirin

Aspirin helps to prevent blood clots and reduces the chances of pulmonary embolism. Studies and research reveals that aspirin reduces the chances of pulmonary embolism after surgery by up to 33%. Some studies also assert that aspirin is beneficial for people who are at the risk of developing blood clots.

Clinical Treatment of Deep Vein Thrombosis

Deep vein thrombosis needs immediate medical attention and requires hospitalization. Hospitalization helps in proper monitoring of the medications.

The treatment for deep vein thrombosis varies from age to age, and from person to person.

For newborns and infants, the course for medication is different.

It is always advisable that you consult your doctor for the right kind of treatment before you ever start with self-medication.

The main objectives of treating D.V.T. (Deep vein thrombosis) are:

- To prevent any blood clot from growing larger
- To stop the blood clot from dislodging and traveling to your lungs
- To prevent occurrence of another blood clot in your veins

Once the inflammation of the vein is diagnosed, the patient is admitted to the hospital for around fourteen days, for treatment with oral warfarin and IV heparin.

Management of deep vein thrombosis (D.V.T.) means not just management from the clinical point of view; it also involves management of the patient as well.

Clinical Management

Compression Ultrasonography

The arrival of Compression Ultrasonography has changed the situation greatly.

At the suspicion of D.V.T., the first test is Compression Ultrasound of the femoral, calf trifurcation and popliteal (proximal) blood vessels.

If the ultrasound reveals proximal D.V.T., treatment starts immediately. If the result is negative, the ultrasound is repeated again after two days and then again after seven days.

If the result is negative, it rules out clinically significant D.V.T.

Checking the Distal Calf Veins

Some think that D.V.T. of the distal calf veins are not dangerous, but it may be when/if it spreads to the proximal veins. Then, serial ultrasonography is done.

If there is no sign of progression, then the chances of pulmonary emboli are rare.

However, when symptoms are found, then venography is done.

After a positive signal, the patient is likely to have a continuous intravenous drip of heparin for four to six days, and then start the oral warfarin treatment.

LMWH or the Low Molecular Weight Heparin

The advantage of LMWH over the unfractionated heparin is ready bioavailability and the longer half-life; it is possible to give it once or twice in the day subcutaneously.

The patient's weight determines the dose and there are claimed to be lesser chances of bleeding than when unfractionated heparin is used.

Medicines

There are medicines which treat deep vein thrombosis (D.V.T.) and some designed to help prevent it.

Anticoagulants

The most common type of medication used to treat D.V.T. is anticoagulants. They are also called blood thinners.

These medicines reduce the chances of clotting in the blood. They also prevent the pre-existing blood clots from enlarging. However, these medicines are unable to break up the blood clots that exist in the blood vessel.

Blood thinners can be taken either as a pill or as an injection through a needle or a tube that is inserted into the vein, a process known as IV injection or intravenous injection.

Heparin and warfarin are the blood thinners that are most often used in treating deep vein thrombosis.

Heparin is given to the patient as an injection or through an IV tube, whereas warfarin is given as an oral pill. Heparin comes in two different types and your doctor will decide which option is most suitable for you.

Warfarin takes two to three days to start its healing process, but Heparin acts sooner.

Your doctor may treat you with both at the same time or may just prescribe one of them.

But, once the warfarin starts its healing procedure, heparin is discontinued.

Pregnant women complaining of deep vein thrombosis are generally treated with only Heparin as warfarin is not a safe option for them.

Treatment for deep vein thrombosis with blood thinners may last from three to six months.

The situations mentioned below may change the course or the length of the treatment:

- If you have had blood clots before, your treatment may last longer.
- If the blood clot in your body appears shortly after surgery, then the treatment may be shorter.
- If you are suffering from certain illnesses, such as cancer, you may have to continue taking blood thinners as long as you are ill.

But, you need to be aware that the side effect of blood thinners is bleeding. These situations arise if your blood becomes too thin. This can be life-threatening to a patient.

The bleeding is inside your body. Therefore, people who are treated with blood thinners, are advised to have a regular blood test to measure their blood's clotting ability. These tests are the PTT and PT tests.

These tests are indicators to help the doctor check whether the amount of medicine prescribed to you is right. If you bruise easily or bleed, this may be due to too much thinning of your blood.

Then, you need to contact your doctor as soon as possible.

Thrombin Inhibitors

These medicines obstruct the process of blood clotting. They are used to treat patients who cannot take Heparin.

Thrombin inhibitors prevent and treat D.V.T. The direct thrombin inhibitors help to prevent the clots from interfering with the protein, thrombin.

Thrombin is considered the chief constituent in making the blood clot. These medicines inhibit circulation.

Heparinoids

Heparinoids are compounds similar to heparin. They reduce the ability of the blood to clot. Heparinoids are prescribed only after surgery to reduce the chances of deep vein thrombosis in a patient.

They do not affect blood clots that are already there; but they prevent formation of new ones.

Heparinoid are injected into the patient and they require monitoring, like heparin. Patients can also use them at their home.

Thrombolytics

These dissolve the blood clot very quickly and are used in conditions where the blood clots are massive and show the potential of causing serious symptoms.

These medicines are only used when the condition is very severe because the side effects of thrombolytics can be sudden bleeding.

Other Treatments for D.V.T.

Graduated Compression Stockings

Graduated compression stockings are a special type of stocking that may reduce swelling that is likely to follow a blood clot in your leg. These stockings are knee length. They are light around the ankle and loosen up as they move up the leg.

This helps to create a gentle pressure on the leg. This pressure is very effective in preventing the blood from pooling and clotting.

A person with deep vein thrombosis should wear these stocking for a year, once deep vein thrombosis is diagnosed.

Vena Cava Filter

A vena cava filter is used in conditions when you cannot take blood thinners anymore or when, despite taking blood thinners, your body is continuously developing blood clots.

This process involves inserting a filter in the large vein, vena cava.

These filters are also called the 'umbrellas' because their wire spokes resemble an umbrella's wire. This filter prevents the blood clots that have dislodged and are traveling towards the lungs from reaching the lungs. However, this process cannot stop formation of new blood clots.

Bed Rest

People with D.V.T. usually need bed rest until there is some relief in the symptoms. The legs must be elevated so that they are above the heart.

This position will reduce the chances of swelling in the foot.

Application of the moist heat to the affected area can serve as a pain reliever.

Dietary Considerations

Maintain a well-balanced and normal diet every day. This is because the quantity of vitamin K in the body affects the working of warfarin. Inconsistent

and unusual food consumption that has high amount of vitamin K may affect the action and safety of warfarin.

Foods that are high with vitamin K are spinach, broccoli, liver, cauliflower, kale, cabbage and dark green vegetables. You should avoid a vegetarian diet that is rich in vitamin K while you are being treated with Warfarin.

If you are using any vitamin products or dietary supplements, check with your doctor to be sure that they are not high in vitamin K.

You must avoid consumption of alcohol while under this medication because this may increase the chances of bleeding in the stomach.

Surgery

If the blood clot or the embolus detaches from the blood vessel and moves into the bloodstream, then surgery may be required to prevent the clot from reaching the lungs.

But, surgery is the last resort, where the blood clot is removed from the veins. During the surgery, the patient receives heparin with anticoagulant therapy and then Warfarin for at least 6 weeks to 3 months after the operation.

Treating D.V.T. in Children

Children older than two months are mostly given intravenous heparin.

The treatment with heparin continues for five to ten days simultaneously with oral anticoagulation.

Treatment of Newborns

The best possible treatment for anticoagulation in treating newborns with deep vein thrombosis and pulmonary embolism is not certain. If anticoagulation is used, it should be for a short course just lasting ten to fourteen days. Intravenous heparin should be used.

A further clinical investigation needs to be done about the best course of treatment with newborns.

Alternative Treatments for Deep Vein Thrombosis

Deep vein thrombosis (D.V.T.) can be fatal if proper medical treatment is not offered in time.

Some people claim that other alternative therapies can be combined with the emergency treatment to help the clot dissolve faster and prevent the clot from recurring in the future.

Alternative therapy starts with one being aware of the disease. The more you are aware and the more you know about the signs and symptoms of deep vein thrombosis, the better.

However, before you proceed with the alternative therapy, it is highly recommended that you consult your doctor and follow his or her recommendations fully.

If you do try alternative treatments, only consult trained and certificated practitioners, because of the severity of the condition.

Soy and Pine-bark:

Soy and pine-bark are claimed by some to be a non-toxic natural nutraceutical. One product claims that it has property to prevent D.V.T. (deep vein thrombosis) but there is no independent science-based corroboration of this claim.

The natural ingredient Pycnogenol, extracted from the maritime pine bark, is claimed by some to have natural anti-inflammatory properties, which may be beneficial for the cardiovascular system.

Garlic

Garlic is claimed by some to be helpful in reducing thrombosis and platelet aggregation or plaque formation in the body.

Garlic is also supposed to have anti-clogging properties that prevents the blood from clogging. Some people include garlic in their diet every day.

If you are using aspirin, it is recommended that you do not take garlic supplementation.

Water

Avoid dehydrating agents as far as possible because they cause the blood to thicken and encourage deep vein thrombosis. Coffee, tea and alcohol have the property of dehydrating the body.

Avoid them as much as possible, whenever you are traveling. Instead of alcohol or coffee, have water. To enhance the taste, you may also add a dash of lemon to your water.

Compression Stockings

Compression stockings are knee-high and fit very comfortably. Elastic compression stockings are beneficial for people who are at risk of developing deep vein thrombosis.

You must wear the stockings from the first month of the diagnosis of deep vein thrombosis and must continue wearing for a minimum of one year for best results.

Exercise

Exercise is another factor in reducing your risk of D.V.T..

As you grow older, you may tend to become less active, but the more active you are, the better the chances of not developing D.V.T..

You need to keep your weight and your blood pressure under control.

Exercise is a great way to moderate both.

Walking: The more you walk, the more your leg muscles remain firm and fit. There is less chance of developing clots in legs that are always active.

Non-prescription Treatments for Deep Vein Thrombosis

The focus with any non-prescription treatment for deep vein thrombosis is safety and they should never be considered without prior consultation with your medical professional and only as a companion to your continuing use of the anticoagulants because of the high risk of bleeding with this condition.

The first important point of deep vein thrombosis treatment is awareness. If you are prone to deep vein thrombosis; have a genetic disorder or family history, then you must be very cautious. However, knowing about the disease itself is taking the first step of prevention.

If you have deep vein thrombosis, you must manage your diet properly. Do not suddenly change your eating habits or include food in your diet that is vitamin K rich. Those foods may interfere with the anticoagulant's action and make your blood clot too easily.

Check the components of your current diet.

Here are some non-prescription treatments that some people claim may be beneficial for you:

Nattokinase:

Nattokinase is an enzyme that is derived from natto, a Japanese preparation made of boiled and fermented soybeans.

Natto is claimed to enhance cardiovascular health. Many Japanese have made it a part of their diet over many centuries.

They claim that some studies show nattokinase dissolves or even prevents blood clots. It is also claimed to prevent heart attack, senility, hardened arteries, stroke and angina.

They take nattokinase with or without having other food at the same time but, if you are taking blood-thinning drugs, it is strongly recommended that you do not take nattokinase.

Garlic

Garlic is claimed to be an effective blood-thinner, with the supposed ability to reducing clotting of the blood.

Lemon Juice

A Japanese report claimed that the humble lemon has two substances that, it says, may be effective in preventing deep vein thrombosis and improving circulation of the blood. These substances are lemon polyphenol and citric acid.

Now that you know what a slice of lemon might be able to do, instead of ordering alcohol the next time you fly, ask for some lemonade and a slice of lemon!

Cod-liver Oil

Taking one tablespoon of cod liver oil regularly with vitamin E (400 IU) is claimed by some people to be very beneficial for your health. They claim that this mixture may prevent formation of blood clots in your body, including those which may be triggered by deep vein thrombosis.

Horse Chestnut

Some people say that these herbs may be helpful to patients with varicose veins or circulatory problems.

Butcher's Broom

This is another herb, which some people claim may be helpful for your veins.

Ginkgo

Ginkgo is an herb that some people claim may have properties to help blood circulation in the human body.

Water

Water is one of safest and best concoctions to include in your home remedy kit.

If you have deep vein thrombosis, it is essential that you avoid dehydration which slows the flow of blood and may trigger blood clotting.

If you regularly drink alcohol, it is best that you moderate your consumption.

You could also reduce your intake of coffee, because coffee and alcohol tend to dehydrate the body.

Drink plenty of water instead.

Before you try any of these preparations, except water, please consult your physician, because your physician is the one who knows you best.

Reduce the Risk of D.V.T. when Traveling

You can reduce the chances of getting deep vein thrombosis by following some simple safety measures during long trips. It is worthwhile for you to take measures of preventing DVT while you are traveling.

Your chances for developing DVT while traveling on long flights are not high, but you should take reasonable precautions to curb this chance.

Ask your doctor if you should take a low dose of aspirin before boarding the flight. Aspirin is a blood thinner and helps to prevent clotting of the blood. But, if you suffer from serious indigestion or have stomach ulcers, this might cause bleeding in the stomach.

Clothes while Traveling: You can wear loose clothes, and move around wherever possible.

You should check with your doctor if you can use compression stockings. They help improve circulation, mostly when you have a high risk of developing deep vein thrombosis.

Be sure you get the correct size, so that the stockings fit comfortably and try the stockings while wearing your shoes, so that you know that you will be able to wear them when you are traveling.

Avoid socks that have tight elastic on the top; the tightness may suppress the flow of blood.

Exercise while Traveling: Do not sit still in a same position while you are traveling. You can flex your ankles and wiggle your toes; this will help circulation of the blood. Walk up and down the aisle occasionally, people driving in cars may take breaks for little walks every now and again. Do not sit in a cross legged position.

Alcohol and other beverages while Traveling: Avoid drinking caffeinated drinks such as coffee, avoid alcohol while traveling. Instead, take plenty of water and juices. Be sure you do not keep yourself dehydrated. Dehydration thickens the blood and enhances deep vein thrombosis.

Deep vein thrombosis is often referred to as the 'Economy Class Syndrome' because blood clots tend to develop in travelers' deep veins after they have been sitting in the inadequate Economy Class leg space through the long flight.

But, it does not mean that, if you travel in First-class or Business class, you will not have some risk of developing D.V.T..

The chances of developing deep vein thrombosis depends on how much activity your legs have during the trip. Sitting motionless for a long period may increase the risk of your developing DVT, whatever class of travel you use.

You must not be afraid of traveling.

Instead, you should find what measures you can take to reduce the risks.

Children do not possess the same high level risk because children tend to be more active, even when confined to their seat, than an adult.

While traveling by car, stop regularly and take a short, brisk walk. If you are on a plane, then take a walk along the aisles every so often.

If you have connecting flights then, instead of sitting around or drinking coffee or alcohol while waiting to board your next flight, take a walk - move around.

Walking flexes the blood vessels and reduces the chance for clots to form.

You may also do some exercise of toes, ankles, and feet throughout your trip.

If you notice any discoloration, unusual swelling or tenderness in the leg, go to see your doctor immediately: They might be signs of blood clot formation.

If you have any doubt about your health regarding flying or any other mode of travel, consult your doctor.

Get Moving: Sitting accordion style or scrunched up for a long period is not only uncomfortable but can be dangerous, especially if you are prone to deep vein thrombosis.

Since the aisles of the airplanes are narrow, they are not a suitable place for exercise but you may take a simple walk every hour or so.

Stay Hydrated: While you are traveling, it is advisable that you stay well hydrated.

Many flights offer caffeinated and alcoholic drinks to its passengers but avoiding them is the best move. Caffeinated drinks and alcohol can dehydrate the body, which could lead to thickening of the blood and narrowing of blood vessels.

This can also reduce your brain function level.

You should have plenty of water and juice at regular intervals instead.

Exercise: When you are traveling, engage in a little exercise when seated. You may point up your toes and then put them down in a flat position. Try to flex your leg muscles and lift your knees after certain intervals throughout the duration of your travel. You may try to rotate your ankles, this way you will be maintaining flow of the blood.

But, do not cross your legs because this position restricts the flow of blood. Exercising your legs helps contraction of the muscles which squeezes the leg veins and helps to pump the blood along.

Visit the doctor when you return: After traveling go and see your doctor immediately to check if there are any signs of deep vein thrombosis (DVT) in you. The signs may include swelling in either of your legs or both, tenderness or pain in the leg, discolored skin or red or slight raise of temperature in the affected area. Moreover, half of the deep vein thrombosis patients do not show symptoms.

Take a Break: If you are traveling by car, if possible avoid completing the trip without stopping even once. If your trip is ten-hours long, be careful that you stop after a few hours and get some walking done. Even if you are the driver, remember you need regular walking breaks. Remember pushing the pedal of the car is not enough activity for your legs.

Your Self-Care Plan to Reduce Deep Vein Thrombosis Risk

Your can develop a self-care plan that focuses on reducing the risk of developing deep vein thrombosis.

- Take the medicines as prescribed by your physician
- Consult your doctor to see if your treatment or medication requires modification

- If you are on blood thinning medicines, watch your intake of vitamin K. Vitamin K affects the functioning of warfarin. Foods rich in vitamin K are soybean oil, canola oil, and green leafy vegetables.
- Do regular exercise of the lower calf muscles if you are sitting in one position for a long period. If possible, get up and do some walking around.
- Ask your doctor to recommend few exercises that will be beneficial for you.
- If you are bedridden, make an effort to increase the amount of movement you do. Increasing this will help to reduce the incidence and effects of D.V.T.
- If your medical conditions keep you in bed, then make sure you keep your lower limbs as mobile as possible.
- Make any necessary changes in your lifestyle.
- ✓ Reduce your weight.
- ✓ Quit smoking
- ✓ Take steps to control your blood pressure.

Having these negatives in your life increases the chances of deep vein thrombosis.

- On your doctor's recommendation, you may wear compression stockings because these stockings help to prevent blood clots in your legs.

Living with Deep Vein Thrombosis

If you already have had DVT (deep vein thrombosis), you are even at a greater risk of developing one such condition in future. It is very necessary that you take certain measures before and after the treatment.

It is essential that you implement the following:

- Know how can deep vein thrombosis can be prevented

- Keep checking your legs for the signs and symptoms of deep vein thrombosis. These may be tenderness or pain, swelling of the area, a rise in the temperature of the affected area or discoloration of the skin.

Contact your doctor right away, if you have signs and symptoms of DVT.

Caution with Blood Thinning Medications

Blood-thinners are necessary to make your blood thin and prevent clotting. However, too much of thinning of the blood causes bleeding and this itself is life-threatening.

The bleeding may take place in your brain or the digestive system.

The signs and symptoms of digestive system bleeding include:

- Vomit that is bright red or appears like coffee grounds
- Black, tarry or bright red blood in the stools
- Acute pain in your abdomen

The signs and symptoms of a bleeding brain include:

- Sudden change of your vision
- Severe headache
- Utter confusion or memory loss
- Sudden movement loss in your legs or arms

If any of these signs occur, immediately seek medical help.

If your bleeding does not stop after an injury or a fall, this could be an indication of too much thinning of the blood.

Before you take any other medicines apart from DVT medicines, always consult your doctor. You must be aware that 'over-the-counter medicines', for example aspirin may affect your treatment in a negative way.

Taking more than one blood thinner may be fatal.

Check out the effect of specific foods in your diet from your doctor regarding your medicines. Foods enriched with vitamin K can impair the desired effect of warfarin, a medicine used for blood thinning.

Also discuss with your doctor whether your intake of alcohol will interfere with the medicines.

Myths and Facts about Deep Vein Thrombosis

Myth: Deep vein thrombosis (DVT) affects only old people

Fact: Deep Vein thrombosis can affect anyone.

The risk factors for deep vein thrombosis are weight gain, obesity, immobility, surgery, physical trauma, and frequent standing for a long duration.

Myth: It is normal to have clots because our body has the tendency to cure itself

Fact: Our blood vessels develop clots and at times, the healing power of the body gets it cured without our knowledge. However, one cannot neglect the symptoms and signs of deep vein thrombosis. When a clot travels up the blood vessel to the heart, it can be dislodged and pass through the lungs, thus disrupting its way. This can cut off oxygen supply. This condition can be life threatening.

Myth: Travelers can avoid deep vein thrombosis by flying in First Class.

Fact: Though DVT is called 'economy class syndrome', people who have traveled in business class or first-class are also susceptible for such conditions. It is not a matter of inadequate leg space; in fact, it is the matter of immobility while on long-distance flights.

Myth: The risk of developing DVT is high for long-distance flyers only

Fact: This is not so, doctors believe that blood clots are likely to form even if you are traveling for journeys that are even somewhere around three hours.

Myth: People who take a bus or drive are less likely to develop DVT

Fact: Research and studies say that blood clots are linked to these modes of transport as well. People traveling should take steps so that it reduces their chances of developing deep vein thrombosis.

Myth: Deep vein thrombosis affects only women

Fact: Anyone can develop deep vein thrombosis, however women have higher chances of developing it because of the female hormone affecting the walls of the vein while they are pregnant, but this does not mean that men are not prone to it.

Deep Vein Thrombosis – Frequently Asked Questions

What is deep vein thrombosis?

A deep vein thrombosis is the clotting of the blood in the deep vein of the body. Most of the deep veins are in the pelvis, thighs and legs. It may occur in other parts of the body. Blood clots in deep veins are serious because it may be fatal to your body.

Is DVT fatal?

Blood tends to clot in our body, but this is not fatal always, because our system absorbs the clot and soon the blood regains normal flow. However, when the clot is large enough or breaks and travels through the bloodstream, it can be dangerous as this may clog your lungs and cause death if not treated immediately.

In cases of mild symptoms of DVT, does this mean I can wait so that the body may heal on its own?

No, do not make such mistake. Not treating deep vein thrombosis may lead to serious complications. If you are not sure of the symptoms, go and see the doctor right away.

My physical condition is good, do I still need to worry about DVT (deep vein thrombosis).

A good physical health is low risk but that does not mean it will not happen. It can happen to anyone. Therefore, be aware of the risk factors.

Does DVT specifically occur in legs?

Blood can clot anywhere but DVT occurs only in deep veins. Our pelvis, thighs, and legs have deep veins.

Does DVT occur in only specific age group?

One has to be cautious after the age of sixty regarding DVT. Nevertheless, deep vein thrombosis can occur in people of any age.

I am on oral contraceptives so am I at a higher risk?

Yes, the risk is higher if you are on oral contraceptives and on hormone replacement therapy. However, it does not mean that you will develop DVT, but the chances are always there.

Is weight a risk for developing deep vein thrombosis?

Obesity is a cause of distress for DVT and cardiovascular disease.

What is the duration of treatment of DVT?

It varies actually, four to six weeks if the DVT is identified and reversible. Certain people are at risk of developing DVT; patients who are post surgery, cancer patients or with genetic abnormalities. Many people remain on medication throughout their life.

Why is DVT Called the "Economy Class Syndrome"?

It refers to little leg space provided in the economy class of the plane. However, this does not mean that if you travel by business class you will not acquire this syndrome. This is applicable to any mode of transport. It is a matter of immobility of your legs.

What measures can I take to prevent DVT during a long-distance travel?

You may wear something comfortable, and drink plenty of juice or water, however, avoid alcoholic beverages. Do some exercises of the ankles and feet. These days, airlines demonstrate exercises to prevent DVT. If you are traveling by car, take a break in between and walk for a while.

Can I drink alcohol when I am on anticoagulants?

Overall, alcohol will not do well for your body, however, it is very necessary that you discuss with your doctor the safe amount of alcohol for you.

Do I need to be cautious about my diet while on DVT medications?

You need to be careful with the foods that are a high source of vitamin K, because this will change the strength of warfarin. Foods rich with vitamin K are canola oils, soybean oil, and leafy vegetables. Consult your doctor to prescribe a well-balanced diet for you.

Glossary of Deep Vein Thrombosis Related Terms

Antiphospholipid Syndrome: An autoimmune disorder marked by the clotting of blood and pregnancy losses.

Blood Vessel Conditions: Circumstances affecting the blood vessels.

Calf Pain: Tenderness or pain behind the lower leg in the calf muscle.

Clotting Disorders: An excessive clotting disorder.

Compression Stockings: A sock, tight-fitting stretching from toes to the knee or leg. It puts gentle pressure on the legs that helps the flow of blood.

Congenital disorder of glycosylation type 1C: Inherited, rare metabolic disorder in which the carbohydrate compounds attach to glycoprotein and impair it. Type 1C is characterized by the defect of glucosyl-transferase enzyme.

CT scan or Computerized axial tomography scanner: An imaging technique, which passes X-rays into a patient's body from different angles.

Cyanosed: Bluish in color.

EKG or Electrocardiogram: A test that record the electric currents, which the heart produces.

Embolism: Blockage of an artery or blood vessel.

Embolus: A dislodged blood clot, air, fat or a tumor piece traveling in the bloodstream.

Essential Thrombocytosis/ Thrombocythemia: A blood disorder, which is rare and is characterized by the too many platelets in the blood caused by excessive megakaryocytes. These excessive platelets form abnormal clotting of the clotting. A defective platelet can create bleeding problem.

Factor V Leiden Mutation: An unusual genetic condition characterized by abnormalities of factor V protein and prevention of inactivation by protein C, which causes the clotting of blood.

Functioning Pancreatic Endocrine Tumor: Tumors developing in the pancreas causing excessive secretion of gastrin, insulin, glucagons, somatostatin, vasoactive intestinal peptidase, and corticosteroids.

Glucagonoma Syndrome: An unusual condition that is marked by the tumor that secretes glucagons and characteristic spread of rashes, diabetes mellitus and a range of other symptoms.

Hemorrhagic Thrombocythemia: A rare form of blood disorder where the platelets increase and results in enlarged spleen, blood vessel blockage, and bleeding.

Heparin-induced Thrombocytopenia: A heparin caused blood disorder. The severity of the condition varies.

Homans' Sign: Characterized by discomfort in the calf, behind the knee or on the dorsiflexion of foot, due to deep vein thrombosis.

Hyper-coagulability: A condition where there is increased activity of the substance in the blood that is controls the blood clotting mechanism.

Iliac: An artery in the heart.

Iliofemoral Vein: A large vein of the groin area.

INR (International Normalized Ratio): A mathematical way of standardizing results from the prothrombin time test, which shows how long the patient's blood takes to clot).

Intravenous: An injection given directly to the vein.

Leg Pain while Walking: A person experiencing pain in the legs with walking.

Leg Swelling: Swelling of one or both the legs.

Leg Symptoms: Symptoms that affect the leg.

Lymphedema: Swelling of the hands and feet due to the blockage in lymphatic transport system.

MRI or Magnetic Resonance Imaging: An imaging technique, which uses powerful magnets for creating clear images of the internal parts of the body.

Multifocal Fibrosclerosis: An unusual disorder in which fibrous tissues occur in several part of the body. The severity of the condition varies.

Occlusion: Closure or blockage.

Oedematous: Swollen.

Post-partum: The period after a live birth.

Protein C deficiency: Genetic condition, which has a deficiency of functioning protein C and which causes blood clot formation. The homozygous type of the condition has much high risk of thrombosis and with severe thrombosis to occur at birth.

Protein S acquired deficiency: A disorder involving deficiency of protein S, which prevents blood to clot in the veins. This deficiency can be acquired through chemotherapy, liver disease, and lack of vitamin K or use of L-asparaginase or oral anticoagulants.

Protein S deficiency: A deficiency of protein S, a protein needed for blood clotting process. It is a genetic condition.

Pulmonary Embolism: Blockage of lung blood vessel often due to blood clot.

Standing Symptoms: Symptoms associated with standing upright.

Superficial Thrombophlebitis: Formation of a blood clot in an inflamed vein part or around the body surface.

Thromboembolism: Lodgment of the blood clot, which causes blockage.

Thrombus: A clot of blood.

Thrombosis: A blood clot in the blood vessel.

Ulcers: A breaking in the skin or open pores.

Vague Symptoms: Unclear, vague, nonspecific, or mild symptoms.

Varicose Vein: An abnormal vein twisted and widened due to defective valves of the vein.

Vascular: Vein-related.

Vein disorders: The disorder affecting the veins of an individual.

Venous Stasis: A condition where there is stagnant or reduced flow of blood in deep veins.

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