



# VARICOSE VEINS

YOGIC MANAGEMENT

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YOGIYOG  
GUIDE TO NIRYANA

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## OVERVIEW

Many people complain of a tired, heavy, aching feeling in their legs by the end of the day, a result of inefficient function of dilated, lengthened, tortuous, varicose veins.

Veins are blood vessels that return deoxygenated blood from the outer parts of the body back to the heart and lungs. Varicose veins are twisted, gnarled and enlarged veins. Any vein may become varicose, but the veins most commonly affected are those in your legs and feet. That's because standing and walking upright increases the pressure in the veins of your lower body.

For many people, varicose veins and spider veins — a common, mild variation of varicose veins — are simply a cosmetic concern. For other people, varicose veins can cause aching pain and discomfort. Sometimes varicose veins lead to more-serious problems.

Varicose veins may also signal a higher risk of other circulatory problems. Treatment may involve self-care measures or procedures by your doctor to close or remove veins.

1. The thickened, twisting or dilated parts of the vein are called varicosities.
2. Varicose veins can form anywhere in the body, but they are most often located in the legs.
3. Varicose veins tend to be inherited, and become more prominent as a person ages.

### *NAME ORIGIN*

Varicose veins (varicosities) are twisted, enlarged veins at the skin surface. The word comes from the latin word varix, which means "twisted."

# TYPES OF VEINS

Veins return blood to the heart from all the organs of the body. There are two main systems of veins in the legs:

## DEEP VEINS:

The deep veins are encased by muscle and connective tissue, which help to pump the blood in the veins and back to the heart.

The one-way valves in deep veins prevent blood from flowing backward, and the muscles surrounding the deep veins compress them, helping force the blood toward the heart. These valves prevent veins from developing varicosities.

The leg muscles squeeze the deep veins during walking, carrying most of the blood back up the legs to the heart. The powerful calf muscles are particularly important, forcefully compressing the deep veins in the legs with every step. The deep veins carry 90% or more of the blood from the legs toward the heart.

Deep leg veins include the iliac, femoral, popliteal, and tibial veins.

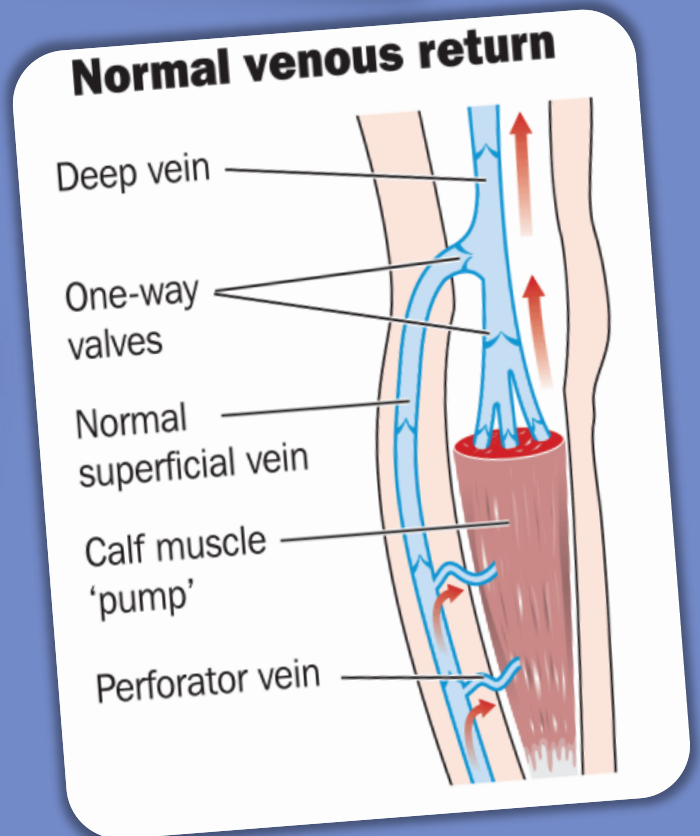
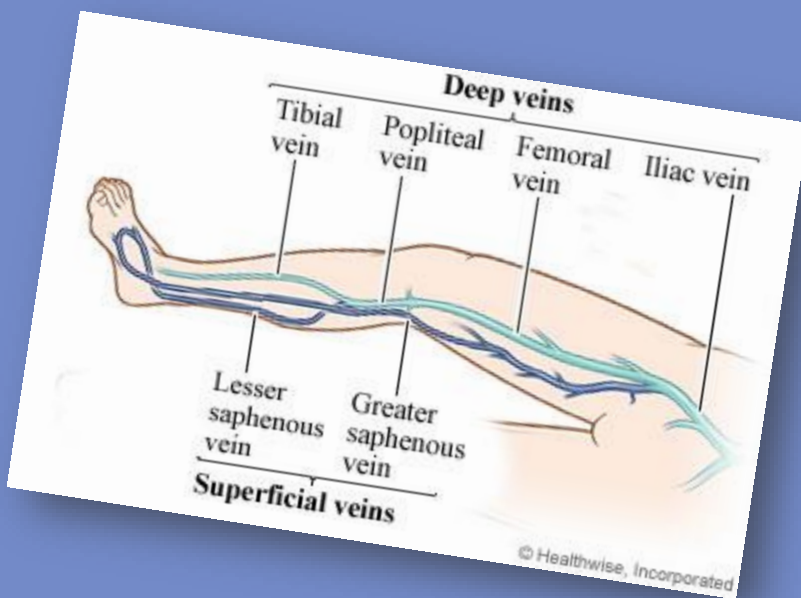
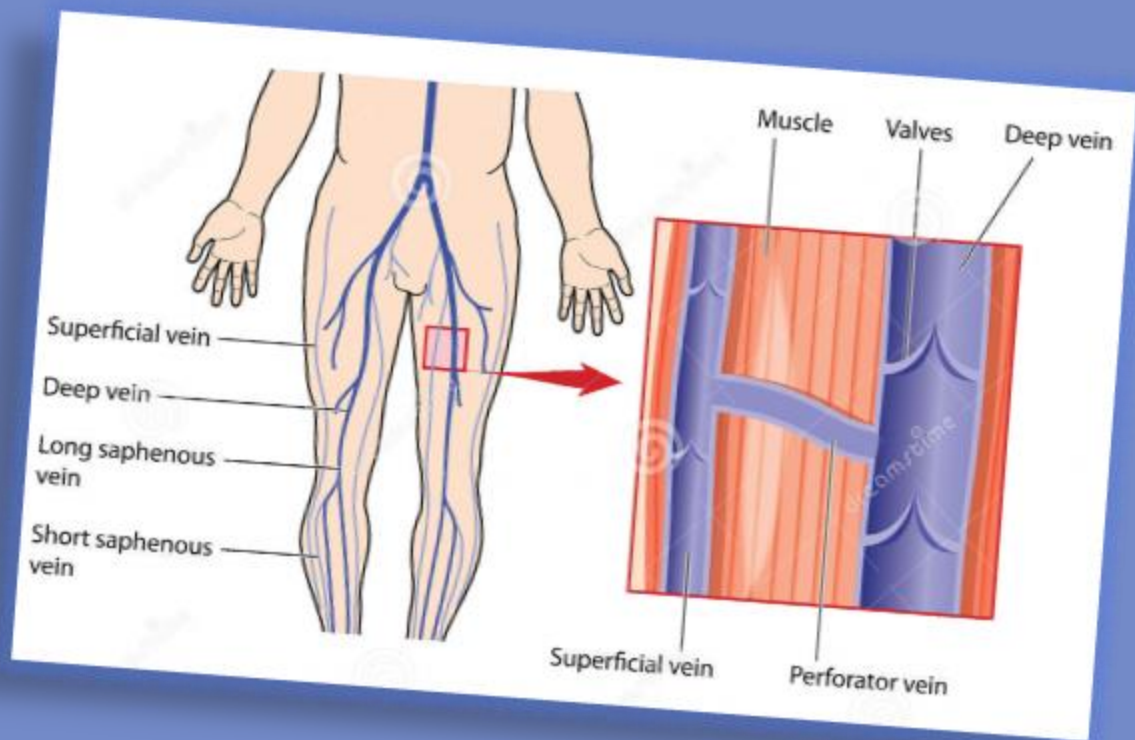
## SUPERFICIAL VEINS:

The superficial veins and their branches are close to the skin. Also included in this category are the communicator or perforator veins, which connect the superficial veins with the deep veins. These can form varicose veins.

These have the same type of valves as deep veins, but they are not surrounded by muscle. Thus, blood in the superficial veins is not forced toward the heart by the squeezing action of muscles, and it flows more slowly than blood in the deep veins. Much of the blood that flows through the superficial veins is diverted into the deep veins through the many connecting veins between the deep and superficial veins. Valves in the connecting veins allow blood to flow from the superficial veins into the deep veins but not vice versa.

Superficial leg veins include the greater and lesser saphenous veins.

*Generally, blood travels from the superficial veins to the deep veins. From there, the blood travels through a network of larger veins back to the heart.*



# DEVELOPMENT OF VARICOSE VEINS

In the average adult body, the column of venous blood must flow at least four feet uphill, against gravity, in order to enter the heart. This is quite an engineering feat which nature has accomplished through a system of one-way flow valves lying along the leg veins. The pumping action is established as the muscles of the thighs and calves contract with walking. These repeated contractions squeeze and milk the blood upwards along the veins towards the heart. The one-way valves within the veins serve to break up the column of blood and prevent it from flowing back down towards the feet.

It is also necessary to understand a little more about the network of veins draining each leg of blood. There are two systems of leg veins- the 'superficial' (flowing just beneath the skin) and the 'deep' (flowing within the muscles of the leg and thigh). *The superficial system enters the deep system in two places - in the groin and behind the knee.* In addition there are a number of perforating veins along the leg and thigh which interconnect the two systems. *Varicose veins develop where the two systems are connected to each other.* Normally, blood in the superficial system flows into the deep system, the junctions between the two being protected by one-way valves which prevent any back flow from deep to superficial.

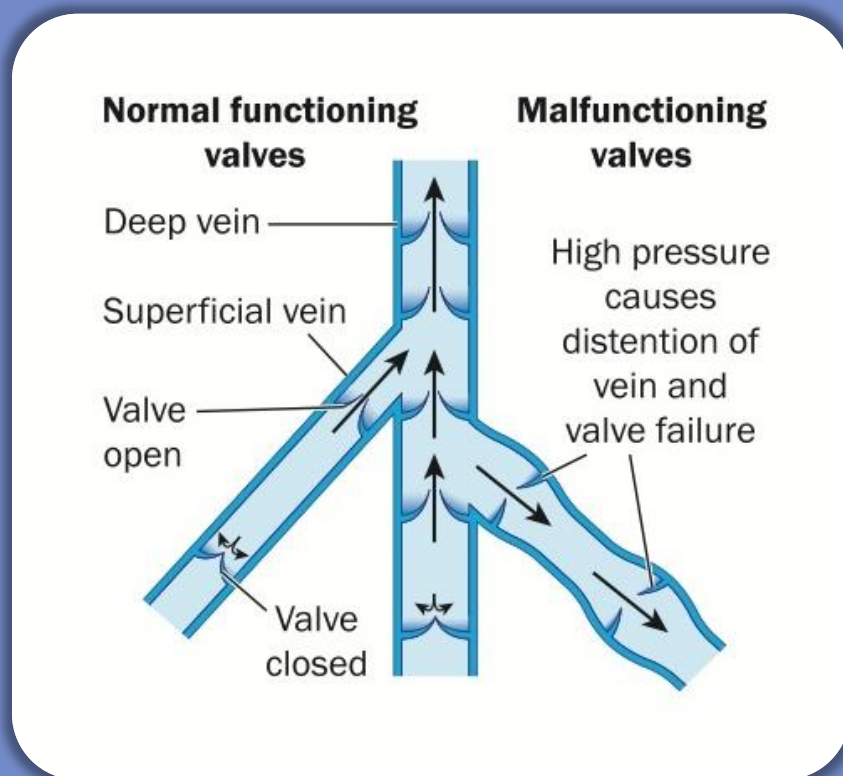
Now consider what happens when standing straight and erect. The muscle pump is inactive and the whole weight of the static column of blood, exerting pressures up to 90mm Hg, is bearing down upon the valves.

A varicose vein can occur in three interrelated ways:

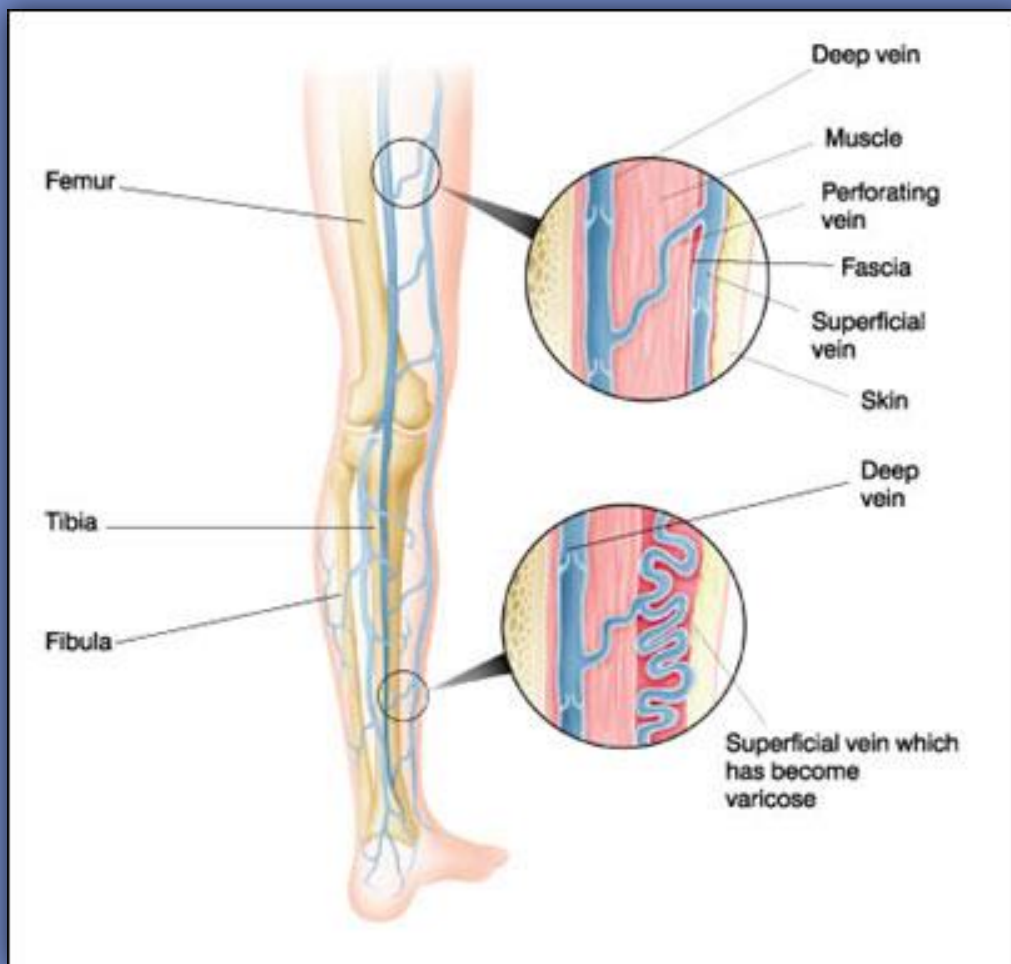
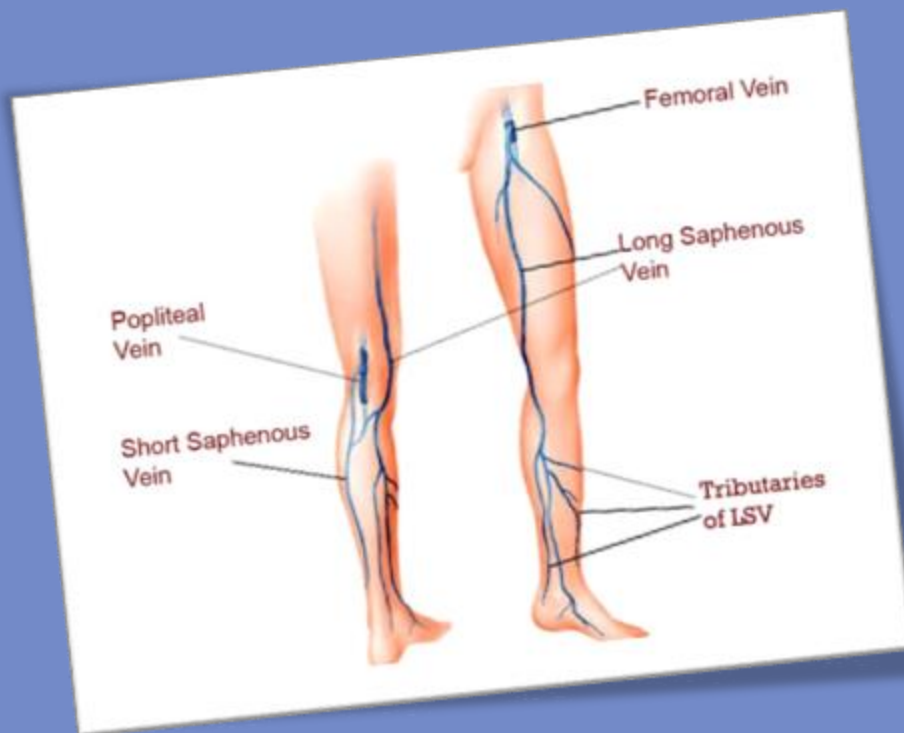
1. A valve becomes incompetent, allowing a high pressure leakage of blood back into the superficial system, distending the superficial vein. Over a period of time the engorged superficial vein becomes enlarged and tortuous.
2. An obstruction of the venous return to the heart, higher up in the abdomen, causes an excessive back pressure in the veins, distending them and forcing the valves to open and become incompetent from above. This occurs classically in pregnancy, where the growing uterus impinges on the inferior vena cava, the major vein in the abdomen. For this reason, varicose veins commonly accompany pregnancy, but valvular competence is usually re-established after delivery, especially if the mother uses yoga therapy in the postpartum period.
3. In thrombosis (blockage) within the deep veins of the leg, all blood flows via the superficial system, producing dilation and valvular incompetence. This is an uncommon and very serious cause of varicose veins requiring urgent medical treatment. It is characterized by intense pain on stretching the calf muscles.

The most common complaint of varicose vein sufferers is the above mentioned fatigue and discomfort by the end of each day. This may be accompanied by sharp, well localized pains in the sites of the varicose veins, swelling of the ankles by evening and an itchiness of the skin of the legs. Others find the unsightliness of their varicose veins embarrassing and socially restricting, feeling obliged to keep the veins covered when in public and consequently limiting their activities.

Fortunately, utilizing a combination of common sense, yoga practices and medical science, a satisfactory solution to most varicose vein problems can be found.









## CAUSES/RISK FACTORS

These factors increase your risk of developing varicose veins:

**AGE** As you get older, your veins can lose elasticity, causing them to stretch. The valves in your veins may become weak, allowing blood that should be moving toward your heart to flow backward. Blood pools in your veins, and your veins enlarge and become varicose.

**PREGNANCY** Pregnancy is associated with an increase in blood volume. Also, added pressure on the veins in the legs by the weight of the growing uterus and the relaxation effects of the hormones estrogen and progesterone on the vein walls contribute to the development of varicose veins during pregnancy.

**SEX** Women are more likely to develop the condition. Hormonal changes during pregnancy, premenstruation or menopause may be a factor because female hormones tend to relax vein walls. Taking hormone replacement therapy or birth control pills may increase your risk of varicose veins.

**FAMILY HISTORY** If other family members had varicose veins, there's a greater chance you will too.

**OBESITY** Being overweight puts added pressure on your veins.

**PROLONGED STANDING/SITTING** Your blood doesn't flow as well if you're in the same position for long periods.

**STRAINING** Chronic constipation, urinary retention from an enlarged prostate, chronic cough, or any other conditions that cause a person to strain for prolonged periods of time causes an increase in the forces transmitted to the leg veins and may result in varicose veins. These mechanisms also contribute to the formation of hemorrhoids, which are varicosities located in the rectal and anal area.

**PRIOR SURGERY OR TRAUMA TO THE LEG** These conditions interrupt the normal blood flow channels.

## SYMPTOMS

Many people have no symptoms at all from their varicose veins, except for the fact that they are noticeable and their appearance can be embarrassing. Other than cosmetic embarrassment, the most common symptoms of varicose veins are *aching, discomfort and heaviness of the legs*, which are usually worse at the end of the day. Sometimes the ankle can swell, too. These symptoms are not medically serious, but can be treated if they are sufficiently troublesome.

Although varicose veins can get worse over the years, this often happens very slowly. In a few people the high pressure in the veins causes damage to the skin near the ankle, which can become brown in colour, sometimes with scarred white areas. Eczema (a red skin rash) can develop. If these *skin changes* are allowed to progress, or if the skin is injured, an ulcer may develop. Skin changes are therefore a good reason for going to see your GP and for referral to a specialist.

Other problems which varicose veins can occasionally produce:

### PHLEBITIS

Phlebitis (sometimes called thrombophlebitis) means inflammation of the veins, and is often accompanied by some thrombosis (clotting of blood) inside the affected veins, which become hard and tender. This is not the same as deep vein thrombosis (DVT) and is not usually dangerous. It does not mean that the varicose veins necessarily have to be treated.

### BLEEDING

The risk of bleeding as a result of knocking varicose veins worries many people, but this is very rare. It will always stop with firm pressure and the veins can then be treated to remove the risk of further bleeding.

### DEEP VEIN THROMBOSIS




Varicose veins are associated with DVT in some patients. It is not clear whether varicose veins themselves increase the risk of DVT, but certainly DVT leads to varicose veins and skin damage around the ankle. If you feel that your varicose veins are presenting any of these symptoms, you should see your GP and ask for a referral to a vascular surgeon.

## ULCERS

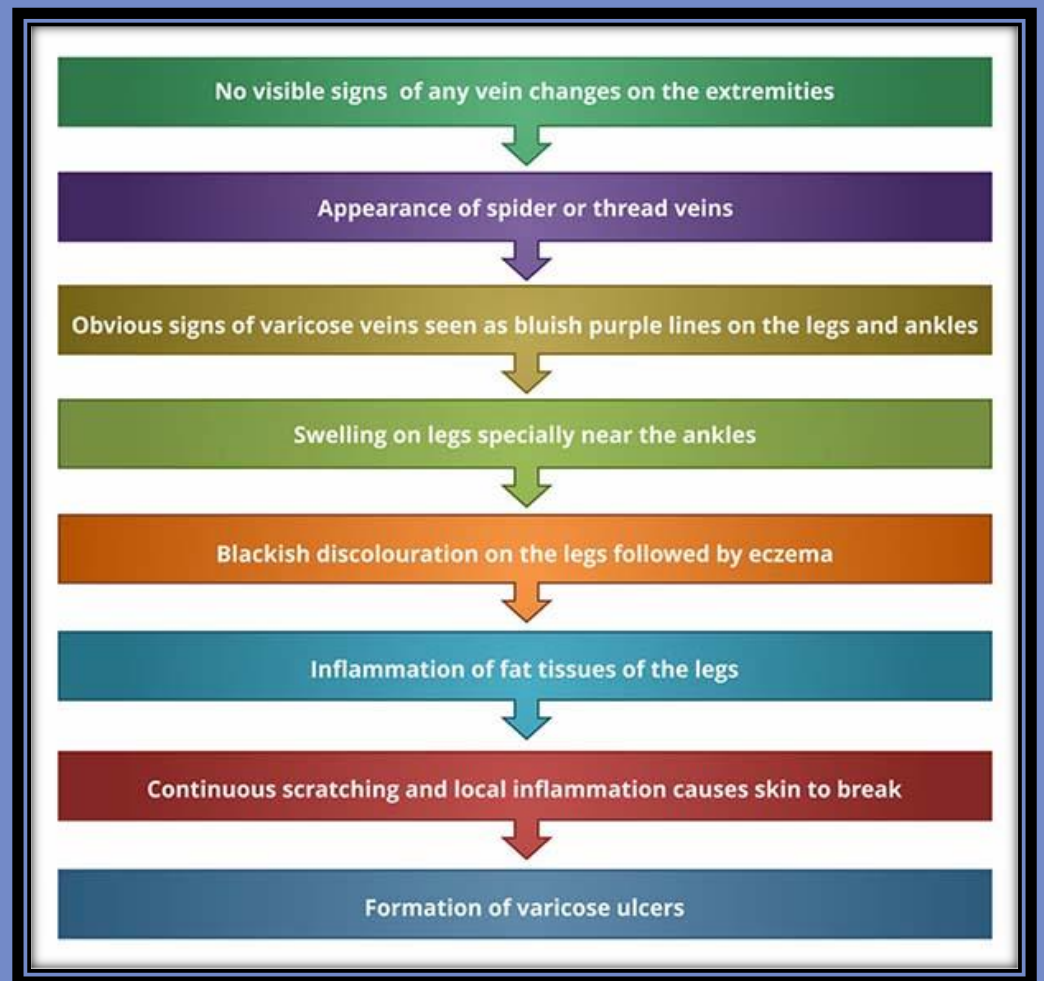
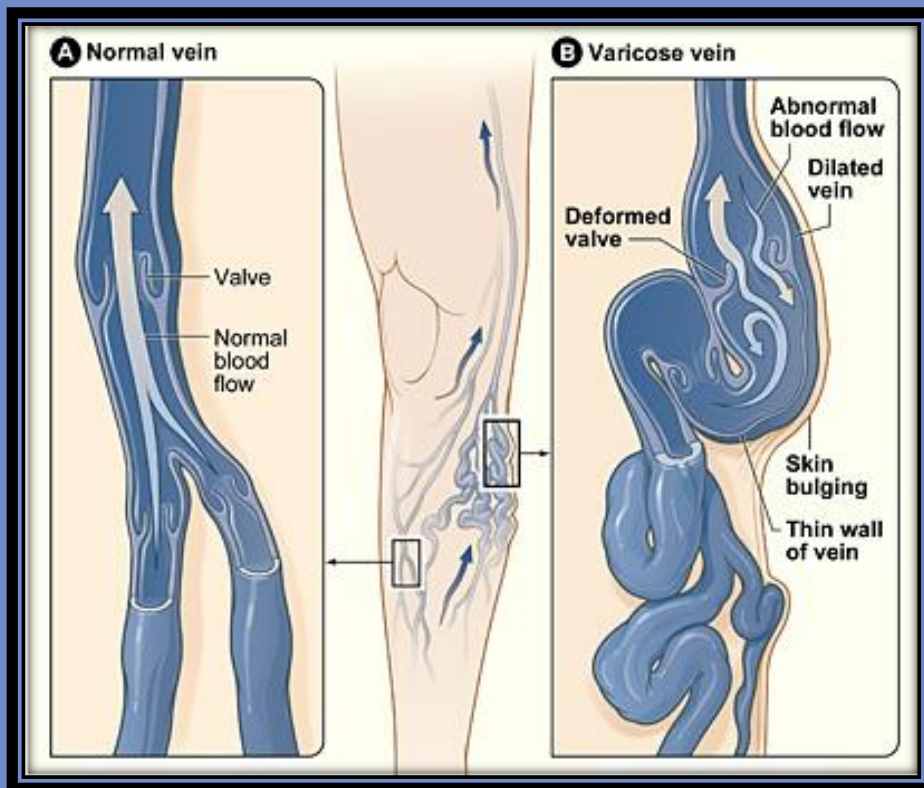
Extremely painful ulcers may form on the skin near varicose veins, particularly near the ankles. Ulcers are caused by long-term fluid buildup in these tissues, caused by increased pressure of blood within affected veins.

## SKIN

Swollen blood vessels in the skin, darkening of the skin, discoloration, discolored and thick skin on legs, rashes, thinning, or wrinkles

VARICOSE VEINS	CHRONIC VENOUS INSUFFICIENCY		
Bulging veins	Leg swelling	Skin color and texture changes	Venous ulcers
			





# YOGIC MANAGEMENT

Yogic practices which stretch the muscles of the legs, toning and developing the muscle pump, should be practiced regularly as, in many cases, the problem of varicose veins manifests because the pumping system is inefficient and weak. Where the muscles are small and flabby, greater strain and pressure is applied to the valves. It is often the case that when the efficiency of the pumping system is improved through these practices, the signs and symptoms of varicose veins disappear.

## SUKSHMA VYAYAM

Jangha Shakti Vikasak – I and II

Jaanu Shakti Vikasak

Pindali Shakti Vikasak

Padmoola Shakti Vikasak

Gulf, Padprishta, Padtala Shakti Vikasak

Padanguli Shakti Vikasak

## STHOOLA VYAYAM

Rekhagati

Hridgati

Utkoordan

Urdhvagati

Sarvangpushti



## ASANA

Asanas are very effective in the treatment of varicose veins, providing relief from symptoms and, in some cases, allowing incompetent valves to regain their efficacy. Many sufferers have reported great improvement in their condition with regular and consistent practice of these asanas.

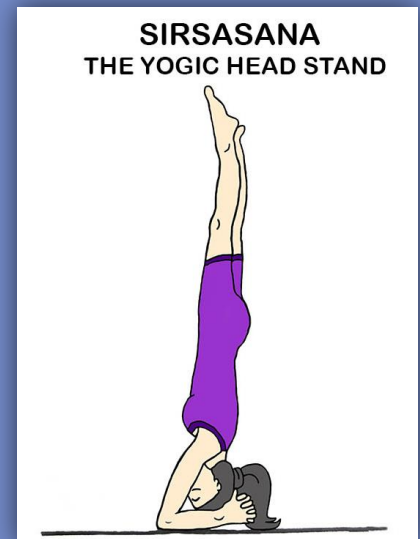
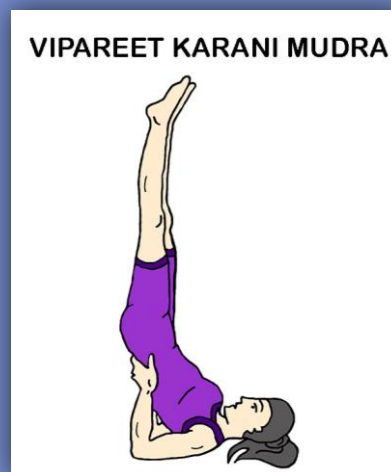
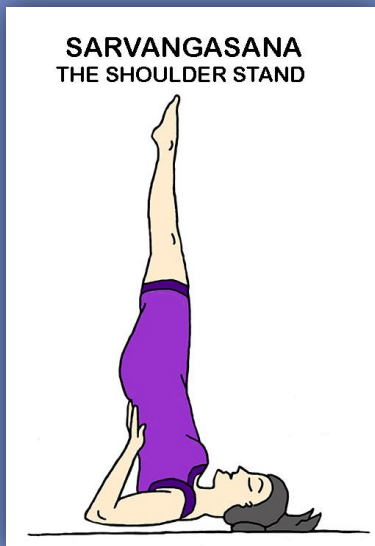
### INVERTED ASANAS

All the inverted asanas are most important. They allow the stagnant pooled blood to drain back to the heart, permitting damaged veins to resume more normal dimensions and facilitating valvular competence.

**Remember to rest in shavasana after any inverted posture.**

*Sarvangasana* (the shoulder stand) should be adopted for several minutes, morning and evening and whenever the legs feel tired and heavy during the day.

*Sirshasana* (the head stand), although an excellent practice for the condition, is an advanced posture and should not be attempted by beginners nor adopted for long periods of time except under competent, direct supervision.





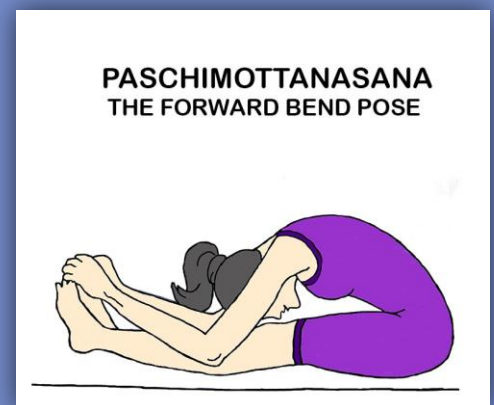
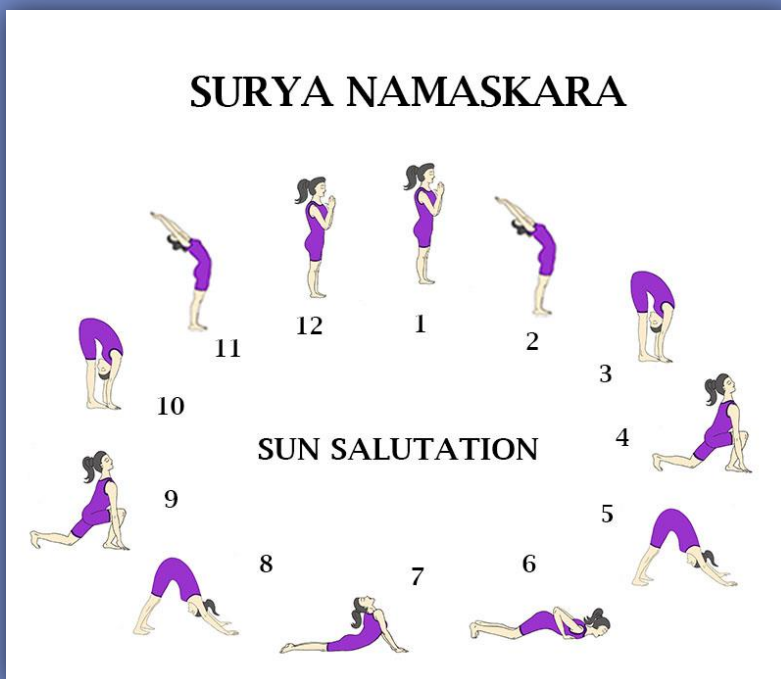
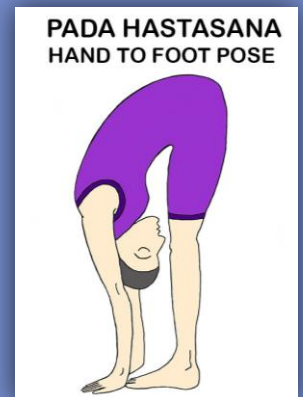
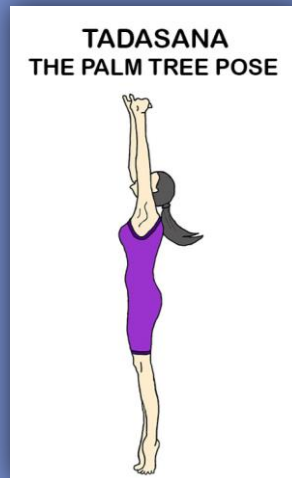
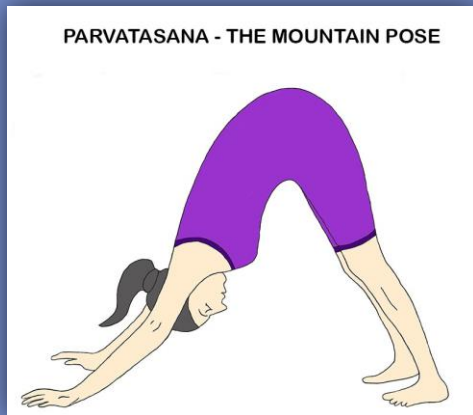
*Parvatasana* is excellent for this purpose. The heels must be brought to the floor if possible, stretching the calf muscles to their maximum.

*Tadasana* is especially good for stretching the veins and enhancing the muscle pump.

*Pada hastasana* and *paschimottanasana*, when correctly performed, bring a positive pressure to bear on the leg muscles which will be appreciated.

*Pawanmuktasana* is especially beneficial for the veins and muscles of the thighs.

*Surya namaskara* is a dynamic asana series with profound benefits. A few rounds should be included at the beginning of the morning program.





Apart from these Matsyasana, Naukasana, Dhanurasana, Gaumukhasana, Chakrasana, etc are also extremely helpful.

## MUDRA

Viparitakarani mudra, being an inverted mudra is most helpful.

## PRANAYAM

Nadi Shodhana Pranayam

Bhramari Pranayam

## MEDITATION

By sitting in posture of meditation for meditating as well as performing Shavasana, not only renders relaxation to the legs but the whole body gets relaxed. That is the reason why Jain saints, who have to walk long distances, are compulsorily made to perform Pratikrama, Samayika, and Kayotsarga. This process of physical relaxation can significantly improve mental composure and with rejuvenated oxygen supply, a tide of vitality can be brought in. The practices are:

Om Chanting

Kayotsarga

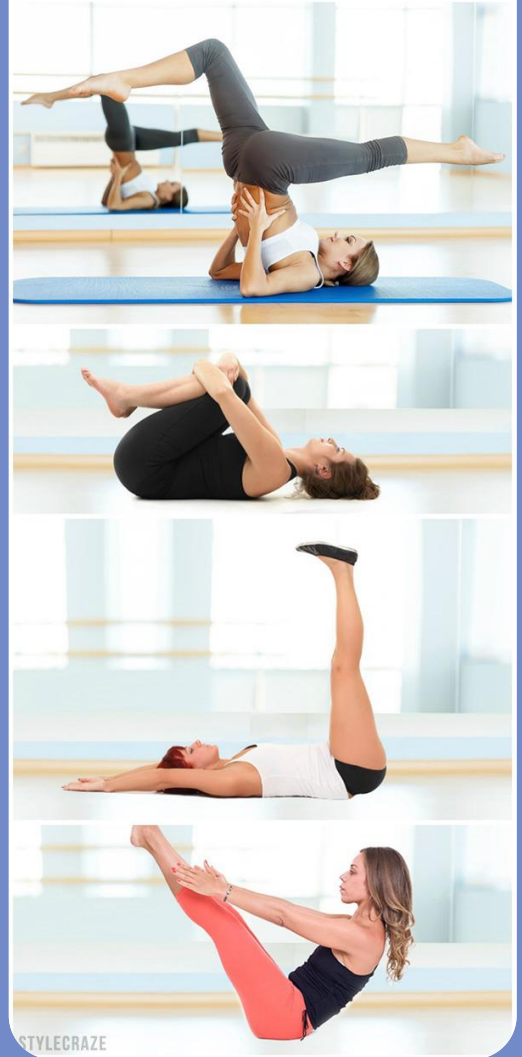
Preksha Meditation

Chakra Meditation

# YOGA POSES

— To Treat —

## VARICOSE VEINS



# DIET

## RESTRICT CALORIES CONSUMED

A high energy intake is associated with an increased risk of varicose veins because it can contribute to the development of obesity and excess body weight. Many people have experienced a dramatic improvement in the appearance of varicose veins by losing as little as 10% of body weight. To lose weight, you will have to create a calorie deficit, either by reducing calorie intake from foods so that your body must draw on reserves for energy (such as fat stored within your body) or by increasing physical activity.

## EAT PLENTY OF FOODS RICH IN VITAMIN C

If you have varicose veins, one of the best diet tips you can follow is to include plenty of foods rich in vitamin C and vitamin E in your daily diet. Vitamin C is needed for the manufacturing of collagen and elastin, two important connective tissues that help keep veins strong and toned. Vitamin C is also known to increase circulation. Therefore, it is no surprise that a deficiency of vitamin C has been associated with varicose veins. The positive effects of vitamin C on blood vessels are believed to be more pronounced when vitamin C is consumed together with vitamin E.

## EAT PLENTY OF FIBER RICH FOODS

Dietary fiber is the part of plant foods that the enzymes in your body cannot digest. It is therefore not absorbed into the bloodstream and cannot be used for energy. Dietary fiber can be classified into two main categories: soluble and insoluble fiber. Soluble fiber forms a gel when mixed with water while insoluble fiber, which does not dissolve in water, passes the intestines largely intact. Due to its ability to make stool bulkier and softer, soluble fiber can prevent constipation. Constipation increases pressure on the veins which can, over time, contribute to the development of varicose veins. Excellent sources of soluble fiber include oats, flaxseed, peas, beans, apples, carrots, barley, berries, and psyllium.

## DRINK ENOUGH WATER

If you eat a lot of fiber rich foods in order to avoid constipation and varicose veins, be sure to drink enough water or otherwise fiber can have the opposite effect and precipitate constipation, which in turn can increase pressure on the veins. It is also advisable to shy away from alcohol, coffee, and tea as these substances have a dehydrating effect on the body.

## EAT FOODS THAT CONTAIN BIOFLAVONOIDS

Bioflavonoids (or simply flavonoids) are a group of compounds that occur naturally in plants. These compounds give fruits and vegetables their vibrant colors and protect them from microbes and insects. A large body of evidence suggests that the properties of bioflavonoids not only protect plants, but also humans. Some studies have found a link between a high, long-term intake of flavonoids and improvements in the appearance of varicose veins. The beneficial effects of flavonoids are believed to result from their ability to strengthen the walls of blood vessels and to prevent free radical stress inside the vessels.

Rutin is one of the flavonoids that have been researched extensively as a potential dietary remedy for varicose veins. Evidence suggests that this powerful bioflavonoid, abundant in buckwheat groats, may help relieve swelling, aching, and pain associated with varicose veins. In addition to buckwheat, there are a handful of other foods that contain rutin in significant amounts.

### Home Remedies for Varicose Veins

*Organic Facts*  
www.organicfacts.net



- ◆ Cayenne pepper helps to cure varicose veins
- ◆ Avoid excess intake of alcohol and smoking
- ◆ Pine bark helps to strengthen capillary walls and veins
- ◆ Olive oil speeds the repair of injured or degraded capillaries and blood vessels
- ◆ Applying garlic paste reduces appearance of varicose veins and discomfort
- ◆ Marigold helps veins to prevent spread of varicose veins
- ◆ Parsley is a good home remedy for treating varicose veins
- ◆ Horse chestnut seeds are effective against varicose veins
- ◆ Grapeseed oil helps to relieve inflammation and muscle pain
- ◆ Apple cider vinegar promotes circulation and reduces inflammation

## RECOMMENDATIONS

1. Avoid standing unnecessarily for long periods of time. If this is not possible, then keep the muscle pump actively working and moving the blood by walking around or flexing and contracting the leg muscles as much as possible. There is a special way of walking which will bring relief. The heel is brought to the ground first with each step, and then the calf muscles are consciously used to lift the heel of the back foot as it comes forward, increasing the 'spring' in the step.

2. Keep the legs elevated as much as possible, to drain the pooled blood from the veins. If you work at a desk, support the legs horizontally rather than down in the usual position. Similarly, your favourite relaxation spot should include a comfortable high foot rest.

During pregnancy, lying on the side will aid venous return by shifting the pressure off the inferior vena cava in the abdomen. Alternatively, the pregnant woman can relax lying flat on the back with the feet against the wall or on a support.

3. Some people find the application of a firm elastic bandage or an elastic stocking each morning is most beneficial, but others find this too cumbersome and restrictive. During sleep and when the limbs are elevated, the veins will drain. Strapping the limb, not too tightly, from above the point of emergence of the varicose vein downwards in a spiralling motion, will prevent them from filling up during the day and will assist the muscle pump as the muscles contract against the added pressure of the bandage. During the day the bandage can be released periodically, the leg elevated and massaged, and then the bandage reapplied. At the end of the day the bandage is removed.

4. Massage of the legs is very effective in bringing relief from the ache of varicose veins. Many people maintain that massage is not only a palliative therapy, but has a long term curative potential as well if it is carried out with awareness and on a regular basis. Massage is most pleasant and relaxing in the evening when the limbs are tired. The movement should be towards the heart, squeezing and milking the tissues of blood. A text on massage will give details of how to massage in the most effective way. This is especially soothing and effective in varicose veins accompanying pregnancy.



# VARICOSE VEINS FACTS

## What Are Varicose Veins?



Varicose veins usually occur in the legs, although they can actually occur in any vein.



They are swollen and enlarged veins, which are often blue or dark purple in colour making them very noticeable even through tights/stockings. The veins are also sometimes bumpy, twisted or have bulges.

## Key Facts

Varicose veins affect up to **three in 10 adults**

**Women** tend to be more affected than **men**

The most common factor in varicose veins is genetic predisposition (hereditary condition)

Prevention is better than a cure

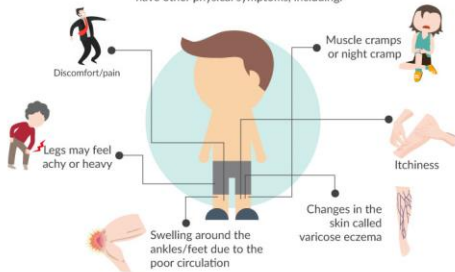
The veins themselves provide no real purpose in the 'varicose' state

Varicose veins do not tend to get better and can actually get worse with time if not treated.

Removal of varicose veins is considered to be perfectly safe and worthwhile

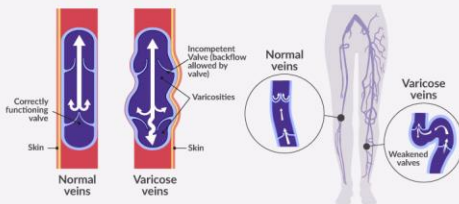
## Varicose Vein Symptoms

As well as the cosmetic/aesthetic issues they cause, varicose veins can also have other physical symptoms, including:



## What Causes Varicose Veins?

Varicose veins occur when the tiny valves within the veins stop working efficiently. If the valves become inefficient, weak or damaged, the blood can collect in the vein which causes it to be swollen and enlarged.



## Recommended Treatment Options

Medical experts agree that lifestyle changes e.g. weight loss can be helpful in the first instance to prevent or manage the onset of varicose veins.



The most effective treatment for established varicose veins is EVLA (Endovenous Laser Ablation), which has over **95%** success rate.

This uses short pulses of laser energy, delivered using a fine probe through a small incision, usually near the knee. This seals the faulty vein so that blood cannot flow through. The leg is then bandaged to reduce swelling and bruising.



Safe and painless laser varicose vein removal procedure



Same day walk in walk out treatment



Removes the veins in your legs permanently



Over a **95%** success rate compared to failure rate of about **50%** with older surgical 'stripping' methods



NICE guidelines recognise that EVLA is the best way to remove the majority of varicose veins.



Available at Cosmedics Skin Clinics' London Vein Treatment Centre in Putney, SW15, London



Massage is one way to keep the blood circulation going in the legs.

## Keep your legs moving

To prevent varicosities, it's crucial to guard your legs against swelling. Dr Liu Peng gives some tips to keep your legs in good shape.

■ Don't stand or sit still for a long time. Frequently lift your legs up and down. Take a walk if possible.

■ Lift your legs beyond the level of your heart and bend your knees to boost blood circulation.

■ Avoid carrying things that weigh more than 10kg.

■ Exercise regularly to keep fit, or else excess weight will put much pressure on the limbs.

■ Check your calves every night, and be aware of any lumps.

■ Don't smoke.

■ Keep your legs clean and avoid injuries.

■ If the skin on your leg is dry, use some prescription ointment to rectify this.

■ Keep your legs raised 15cm when you sleep at night.



wiki How to Soothe Your Legs After Stress or Long Walk



wiki How

