

Leg Exercises for Venous Disease

For the overall improvement of venous function in the legs, daily exercise is mandatory. The heart pumps the arterial blood into the legs through arteries. The venous blood returns to the heart passively through the veins. There are five venous pumps in the legs which help this blood to flow properly. It is very helpful for the venous return from your legs if you can strengthen these muscle groups. These muscle groups are as follows:

- Foot Muscles
- Lower leg muscles(calf and front leg muscles)
- Thigh muscles (front of thigh and hamstring muscles)

In addition, you need to strengthen your stomach and back muscles. I recommend a sequence of **7 simple exercises** to be performed **twice a day** (morning and evening). You can perform these exercises in less than 4 minutes no matter where you are. Please remember, these simple set of exercises do not replace your other physical activities e.g., work-outs in the gym and daily walks. I encourage you to start a program of **walking at least 2 mile a day**. (The best way to achieve this goal is to do the walking in intervals of quarter miles. After each quarter mile, stop for a few minutes until your heart rate drops to the level before you started walking. In other words, measure the resting heart rate before you start walking. This is a proven technique to improve your general health as well.) If you can strengthen your above mentioned leg muscle groups, daily walks will be more productive to help the venous circulation of the legs.

Exercise 1 Stand straight on your **both feet one foot apart**. Slowly raise your heels and then drop them to the floor. Now raise your toes as high as you can and drop them to the floor. Repeat this sequence **30 times**. (You may start with few repetitions and gradually work up to 30. Initially you can hold on to something for balance, but eventually do these exercises without holding anything. This will improve your balance)

Exercise 2 Repeat the above exercise while you have all your weight on the **right foot** using the left foot for balance. **Perform 30 repetitions**.

Exercise 3 Repeat the above exercise while you have all your weight on the **left foot** using the right foot for balance. **Perform 30 repetitions**.

Exercise 4 Stand straight on your **feet one foot apart**. Now lift your right leg so that your right thigh is parallel to the ground and your right lower leg is at right angle to the thigh. (**You are standing on your left leg.**) Try to balance yourself in this posture. (Initially you may hold on to some object for balance, but eventually learn to be in this position without holding on the anything. This will improve your balance). Now extend your lower leg so that your thigh and lower leg are straight. Now bend your knee so that your right lower leg is again at right able to the thigh which remains parallel to the ground. **Perform 30 repetitions** and then bring your right foot to the ground.

Exercise 5 Stand straight on your **feet one foot apart**. Now lift your left leg so that your left thigh is parallel to the ground and your left lower leg is at right angle to the thigh. (**You are standing on your right leg.**) Try to balance yourself in this posture. (Initially you may hold on to some object for balance, but eventually learn to be in this position without holding on the anything. This will improve your balance). Now extend your lower leg so that your thigh and lower leg are straight. Now bend your knee so that your left lower leg is again at right able to the thigh which remains parallel to the ground. **Perform 30 repetitions** and then bring your left foot to the ground.

Exercise 6 Stand on your feet one foot apart. Flex your body slowly forwards at your hips keeping the abdomen, chest neck and head in a straight line until your upper half of the body is parallel to the ground. Let your arms dangle in front of you as if you are trying to grab an iron bar parallel to the ground near your feet. Now slowly come up keeping the upper half of your body (abdomen, chest, neck and head) in a straight line. **Perform 30 repetitions.**

Exercise 7 Stand on your feet three feet apart. Perform deep knee bend moving down slowly until your thigh is parallel to the ground. (Try to keep your weight on the heels if possible. This will decrease the stress on your knees.) **Perform 30 repetitions.** Perform these repetitions very slowly. (If you have severe arthritis in your knees, you should skip this exercise).