Information about Prevention of Deep Vein Thrombosis and Pulmonary Embolism

1. Have you ever heard the term "deep vein thrombosis"?

For your reference, we have summarized in this document what you need to know to prevent deep vein thrombosis (venous thromboembolism). Depending on your symptoms, however, your physical activities or water intake may be restricted for treatment. Please be sure that your doctor or nurse has explained this to you.

2. What is deep vein thrombosis (venous thromboembolism)?

During your hospitalization, you tend to have fewer chances of physical activities or you may be required to restrict your activities or rest depending on your symptoms. In addition, if you are going to have surgery, you may need to keep the same posture for a long time during the surgery or you may need to rest in bed after surgery. Under these circumstances, your muscles will weaken. Furthermore, when muscles are less utilized, the pumping action by muscle contraction around blood vessels weaken, resulting in poor blood flow in veins and blood retention in the vessels. Then water leaks from the vessels, which causes swelling (edema) of the leg and makes blood clotting easier. This condition, in which a blood clot (thrombus) is formed, is called "deep vein thrombosis (venous thromboembolism)". Its symptoms include a difference in size between your left and right calves and leg pain.

3. What is a pulmonary embolism?

When people with already formed blood clot stand up to walk, the clot may detach from the blood vessel wall. It may be carried by the blood flow and the heart through the lung, and it may finally block the pulmonary artery. This is called a "pulmonary embolism". It causes severe symptoms, from chest pain, difficulty breathing, extreme physical weariness, and shock. In the worst case, it can be life threatening. Please understand that prevention of deep vein thrombosis (venous thromboembolism) will lead to preventing a pulmonary embolism.

4. Who tends to develop deep vein thrombosis (venous thromboembolism)?

Deep vein thrombosis (venous thromboembolism) is associated with retention of blood (poor blood flow) and hypercoagulability (blood clotted tendency).

*If any of the following conditions apply to you, you will require greater attention.

Surgery; trauma (fracture); extended periods of immobility; obesity; old age; malignant tumor; pregnancy; oral contraceptives (pills); diabetes mellitus; a history of cardiac disease, brain infarction, nephrotic syndrome, etc.

5. Prevention

• Moderate walking or leg exercises: these prevent retention of blood in the lower limbs and promote blood flow.

- Getting out of bed as soon as possible
- · Exercises while lying down
- Exercises of the ankles and toes
- Moderate water intake: This prevents the blood from thickening and easily clotting.

*Please note that if you drink too many cups of coffee or tea with caffeine, you may lose more water than you gain from drinking, because caffeine increases urinary output.

(The following procedures may be performed based on your doctor's instructions)

- Compression stockings: Wearing medical compression stockings makes the blood flow faster in the deep vessels in the lower limbs and prevents thrombus formation.
- Intermittent pneumatic compression device for the legs: Adding pneumatic pressure on the legs by using a special pump promotes blood flow.
- Anticoagulant (injected or orally administered): This prevents blood from clotting.

*In this hospital, we take measures that have been established in each department to prevent these problems. These measures do not guarantee absolute prevention; however, they are known to be effective based on statistical analyses. During the use of stockings or an intermittent compression device, continuous compression may cause paralysis of the lower limbs. If you have numbness or pain in your lower limbs, please tell your nurse.

We adjust the amount of anticoagulant based on your blood test results. In some cases, this drug may cause bleeding as a complication.

*By signing below, I confirm that I have read and understood the information provided above.

Date (YYYY/MM/DD): / /

Patient's signature: