Blood Clots or Deep Vein Thrombosis (DVT) and Brain Tumors

Many patients with brain tumors are at risk of getting clots in one or both legs. Patients with malignant brain tumors, such as GBM or anaplastic gliomas, are at the highest risk.

What is a DVT?
A deep vein thrombosis can happen when a blood clot (thrombosis) forms inside a vein. This is most common in the calf or thigh. This clot can change blood flow. Also, a piece of the blood clot can break free and travel to the heart or lungs, called a pulmonary embolus (PE). This would block blood flow in these parts of your body and requires more urgent care.

What are the risk factors?
- Immobility
- Cancer
- Injuries
- Infections and inflammatory diseases
- Smoking
- Overweight
- Traveling long distances (sitting too long)
- Inherited clotting disorders
- Pregnancy
- Birth control pills

What are the signs of a DVT?
Many times a DVT may happen without clear signs. Call your doctor if you notice:
- Pain or tenderness in the calf part of the leg
- Swelling of one foot, ankle, or calf – more than the other side
- Redness in the calf or ankle
- “Hot spots” or a feeling of more warmth in part of the leg
- Discoloration or obvious large veins

These are signs of a PE- Seek help right away if you have:
- Shortness of breath
- Rapid pulse
- Increased sweating or anxiety
- Sharp chest pain
- Coughing up blood
- Dizziness or fainting

How is a DVT Diagnosed?
The most common test to find out if you have a DVT is the Doppler scan or Doppler ultrasound.
- This non-invasive test uses a wand-like device (a transducer) and sound waves to check the flow of blood in your veins.
- A gel is put on the skin of the leg, and the wand is passed back and forth over the leg.
- The computer turns the sound waves into a picture that shows where the clot is found.

The most common test to find out if you have a PE (pulmonary embolus) is a Spiral CAT (CT) scan of your chest
- A CAT scan is a special computer that makes detailed pictures of your internal organs through the use of x-rays.
- An IV is placed and contrast dye is given.
- If you have any known allergies to contrast dyes, seafood or shellfish, be sure to tell us before having this test.
How is a DVT treated?
Sometimes these medicines are called “blood thinners.” Their function is to decrease clotting and to stop the clot that is already there from getting bigger. They also stop new clots from forming. Over time, your body will naturally break up the clot that is there.

Anticoagulant medicines
- Low molecular weight heparin (LMWH) (Lovenox® also called Enoxaparin and Fragmin® also called Dalteparin)
  - These are the preferred medicines to treat a DVT or PE in a patient with a brain tumor
  - Given as a shot (subcutaneously)
  - No blood tests needed
  - Risk of bleeding low
  - Rarely interacts with medicines
- Warfarin (also called Coumadin®)
  - Given as a tablet
  - Needs blood tests often
  - Is adjusted based on the results of the blood test
  - May cause bleeding
  - Interacts with many medicines
  - These should ONLY be used if the patient can’t have the above “LMWH” medicines.
- Heparin
  - Given through an IV - in the hospital
  - Needs blood tests often
  - Is adjusted based on the results of the blood test
  - May cause bleeding
  - Interacts with many medicines

Once you are placed on a certain medicine, ask your doctor, nurse or pharmacist for more facts about that medicine.