

Beware of the economy class syndrome

Immobility may be a cause, but that isn't the only thing that leads to DVT and the more deadly pulmonary embolism. *By Sol E Solomon*

It is elusive and masquerades as other diseases. That is how Associate Professor Lee Lai Heng, Senior Consultant, Department of Haematology, Singapore General Hospital, describes deep vein thrombosis (DVT), the condition commonly associated with long-haul flights and popularly known as economy class syndrome.

Pain, swelling and redness of the legs are some symptoms of DVT. But these symptoms can indicate other illnesses, from simple infections to more serious ones like heart failure and kidney diseases. DVT is also difficult to detect, especially in its mild form. A condition in which a blood clot forms in a major vein, DVT can become serious and even life-threatening if a piece of the clot breaks off and travels to the arteries in the lungs.

Prof Lee said that because it may go undetected for a while, "reports of DVT can be very dramatic. For instance, when someone suddenly dies after a flight". While DVT can happen to anyone, anywhere, the condition is actually quite rare in healthy individuals (who are not hospitalised). This is because the body is able to naturally dissolve blood clots that result from injury.

"In the first place, people who do get DVT are likely to have some risk factors that make them more susceptible to the condition. They may not be moving very much because of injury, osteoarthritis, or a recent recovery from a debilitating illness," she said.

People who are on oral contraceptives or hormone therapy, are pregnant, have a family history of the condition, who suffer from cancer or are



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According to Associate Professor Lee Lai Heng, DVT mostly occurs in the lower limbs, although blood clots can form anywhere in the body.

undergoing cancer treatment are also at higher risk of developing DVT. "Some cancer cells release substances that promote clotting," said Prof Lee. Some cancer treatments also increase the chance of developing DVT.

DVT mostly occurs in the lower limbs, usually the calves, although blood clots can form anywhere in the body, including the brain and the abdomen. Clots in those areas are rare and can have serious consequences.

Patients in hospitals are usually regarded as being at risk of developing DVT, in part because they are likely to be moving little and lying in bed for extended periods.

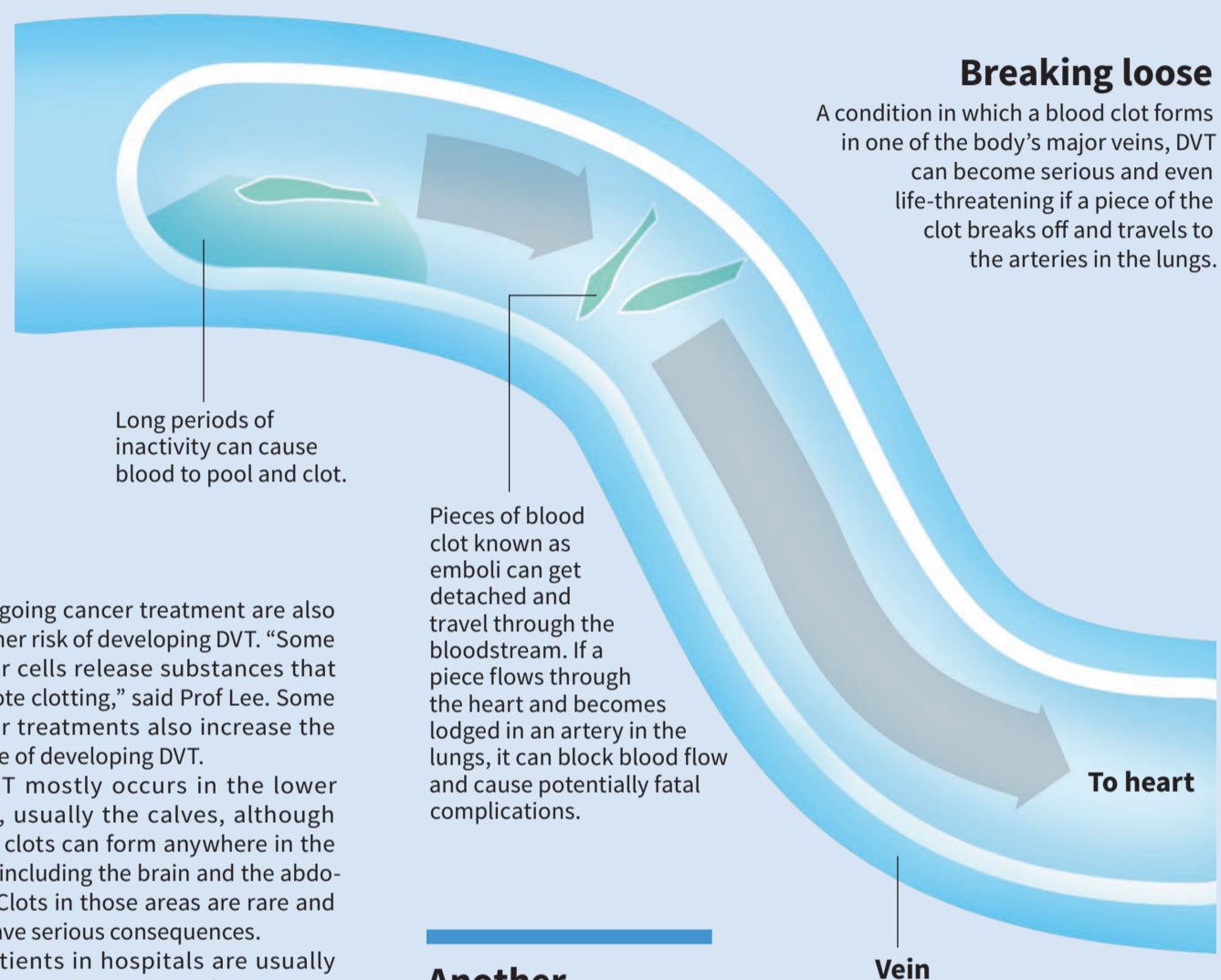
During surgery, their veins may be injured, which will also lead to blood clotting.

When someone goes to the A&E (the accident and emergency department of hospitals) or his general practitioner with DVT symptoms, he will be put through tests such as validated scoring algorithms and the D-dimer, or CT and MRI scans.

If the condition is confirmed, the first thing to do is "prevent more clots from forming, while giving the body a chance to melt the (initial) clot", said Prof Lee. Thus, anticoagulant drugs are the mainstay of treatment.

If there is a large limb- or life-threatening clot, a strong dose of a thrombolytic drug might have to be given to try and dissolve it, but that would put the patient at risk of bleeding.

"A thrombolytic drug is used to dissolve blood clots in stroke or heart attack situations. In such instances, the blood clots are very small but situ-



Another reason to drink more water

People who are at greater risk of developing DVT should:

► Drink enough water to prevent dehydration



► Do leg exercises on long-haul flights



► Get up to walk and stretch, or at least move the legs, when sitting for long periods of time



► Wear compression stockings to promote blood circulation



ated in strategic positions where they can cause massive damage."

So the usefulness of using drugs to dissolve a large blood clot has to be weighed against the risks, especially in situations where the clot has to be dissolved quickly instead of waiting for the body to do its work.

Administering thrombolytic drugs, a procedure performed by an interventional radiologist or surgeon, is not commonly done.

If a patient diagnosed with DVT is also at high risk of developing a pulmonary embolism, but cannot use anticoagulant drugs because he is at risk of bleeding, an inferior vena cava filter may be used to prevent the blood clot from travelling towards the lungs.

Such filters can be removed later, and anticoagulant drugs started as soon as the risk of bleeding subsides.

In extreme cases, surgery can be performed to remove clots, in particular life-threatening clots in the lungs.