

Belt and braces approach may prevent deep vein thromboses

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Combining short periods of leg compression with medications such as heparin is more effective at preventing blood clots in high-risk patients than using either preventative measure alone. A team of Cochrane Researchers believe that this 'belt and braces' approach can significantly decrease a patient's risk of deep vein thrombosis (DVT).

DVT can be fatal if the clot breaks free and travels to the lungs (pulmonary embolism). They can also cause severe leg swelling and ulcers – a condition known as post-thrombotic syndrome.

While DVTs have grabbed media attention when they occur in people who have sat in cramped conditions (e.g. economy class syndrome), they are much more common in patients undergoing surgery, hospitalised with severe illnesses or with leg fractures. Most occur in the legs. Healthcare providers often recommend anticoagulant medications such as heparin, which thin the blood, as preventative measures for patients at high risk of DVT. Alternatively, using a pump to inflate an airtight bag around the leg can also prevent blood "pooling" and reduce the risk.

By analysing data from eleven trials involving 7,431 patients, Cochrane Researchers found that a combined approach to prevention reduced the risk of DVT from 4 in 100 to less than 1 in 100 when compared to anticoagulants alone. When compared to compression alone, the risk of DVT was reduced from 4 in 100 to 1 in 100.

"Our results support guidelines that already recommend the combined

use of medication and leg compression to prevent deep vein blood clots," says lead researcher, Stavros Kakkos of the Henry Ford Hospital in Detroit, Michigan.

There is, however, still some uncertainty as to whether the combined approach reduces a patient's risk of a life-threatening pulmonary embolism caused by a clot travelling to the lungs.

"If these clots get into the lungs they can be fatal. We urgently need more studies to find out whether combined preventative approaches are also useful in preventing pulmonary embolism," says Kakkos.

Source: Wiley

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