

Combined leg compression and anticoagulants effective in preventing venous thromboembolism

Clinical question	Compared with single modalities, how effective is intermittent pneumatic leg compression combined with pharmacological prophylaxis in preventing venous thromboembolism (VTE) in high-risk patients?
Bottom line	Compared with compression alone, combined prophylactic modalities significantly decrease the incidence of VTE, ie, symptomatic pulmonary embolism (PE) and deep vein thrombosis (DVT). Compared with pharmacological prophylaxis alone, combined modalities significantly reduce the incidence of DVT but the effect on PE could not be determined because of the lack of events in the included studies. Anticoagulants used in the trials included aspirin, warfarin, unfractionated heparin, low molecular weight heparin and fondaparinux.
Caveat	Most patients had either a high-risk procedure or condition. The surgical procedures were orthopaedic, urological, cardiothoracic, gynaecological or general surgical. The magnitude of the reduction in VTE may be less for patients at moderate risk.
Context	DVT and PE are possible complications of surgery and trauma. These complications extend hospital stay and are associated with long term disability and death. Mechanical intermittent pneumatic leg compression reduces venous stasis while anticoagulants reduce blood clotting.
Cochrane Systematic Review	Kakkos SK et al. Combined intermittent pneumatic leg compression and pharmacological prophylaxis for prevention of venous thromboembolism in high-risk patients. Cochrane Reviews 2008, Issue 4. Article No. CD005258. DOI: 10.1002/14651858. CD005258.pub2. This review contains 11 trials involving 7431 participants.
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[References]

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