

**Supplementary table S1: Characteristics of trials of thigh length stockings (with or without pharmacological prophylaxis) versus knee length stockings (with or without pharmacological prophylaxis)**

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
<b>Thigh length stockings plus LMWH versus knee length stockings plus LMWH</b>							
Howard (2004)[11]	UK 376/294	VTE risk factors: 77% high risk, 16% moderate risk, 7% low risk  Average age: 58 years (range 16-88)  Male: 42%	General surgery	(1) Kendall TED thigh length stockings plus enoxaparin LMWH (n=127)  (2) Medi thrombexin® climax thigh length stockings plus enoxaparin LMWH (n=121)	Medi thrombexin® climax knee length stockings plus enoxaparin (LMWH) (n=128)	DVT (assessed by duplex ultrasound)  PE  Adverse events	Unclear
<b>Thigh length stockings plus fondaparinux versus knee length stockings plus fondaparinux</b>							
Cohen (2007)[24]	Brazil, UK, Hong Kong and Spain  874/795	VTE risk factors: 20% obese, 3% had a history of VTE, 8% had varicose veins and/or chronic venous insufficiency, 3.5% had a family history of VTE  Average age: 65 years (range 18-99)  Male: 43%	Orthopaedic surgery	(1) Thigh length stockings plus fondaparinux (n=266)	(1) Knee length stockings plus fondaparinux (n=123)  (2) Fondaparinux alone (n=400)	VTE (demonstrated by bilateral proximal ultrasound or venography)  Fatal PE  Adverse events  Quality of life	Low
<b>Thigh length stockings versus knee length stockings</b>							
Porteous (1989)[28]	UK 124/114	VTE risk factors: 40% had malignancy, 32% were smokers. Patients with a history of DVT were excluded from the trial  Average age: 65 years  Male: 43%	Abdominal surgery	Thigh length stockings (pressure at the ankle: 11.3 mm Hg) (n=56)	Knee length stockings (n=58)	DVT (assessed by radioiodine fibrinogen uptake test. Phlebography was performed if DVT was suspected)  Adverse events  Patient preference	Unclear
Hui (1996)[31]	UK 177/138	VTE risk factors: 14% were smokers, average body mass index was nearly 28 for patients undergoing total knee replacement	Orthopaedic surgery	Thigh length stockings (n=44)	(1) Knee length stockings (n=40)  (2) No stocking (n=54)	DVT (assessed by bilateral ascending venography)  Fatal PE (control group only)	High

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
		Average age: 69 years (range 49-88) Male: NR				Patient adherence and preference	
Williams (1988)[32]	UK Not reported/128	VTE risk factors: NR Average age: NR Male: NR	Abdominal surgery	TED thigh length stockings (n=44)	(1) Brevet TX knee length stockings (n=44)  (2) Brevet TX knee length stockings plus low dose heparin in high risk patients (high risk not defined) (n=40)	DVT (assessed by radioiodine fibrinogen uptake test)	High
Ayhan (2013)[33]	Turkey 219/Not reported	VTE risk factors: Extremely high risk for postoperative DVT (not defined) Average age: NR Male: NR	Not reported	Low pressure thigh length stockings (n=not stated)	(1) Low pressure knee length stockings (n=not stated)  (2) Moderate pressure knee length stockings (n=not stated)	DVT (assessed by duplex ultrasound)  Patient preference	Unclear

**Supplementary table S2: Characteristics of trials of thigh length or knee length stockings plus pharmacological prophylaxis versus pharmacological prophylaxis alone**

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
<b>Thigh length stockings plus LMWH versus LMWH</b>							
Kalodiki (1996)[14]	UK 93/78	VTE risk factors: 32% were obese, 45% had varicose veins, 5% had postphlebotic syndrome, 3% had history of previous DVT, 12% had leg oedema and 18% had chronic bronchitis. Patients with a history of recent DVT or active malignancy were excluded from the trial  Average age: 69 years (range 53-85)  Male: 49%	Orthopaedic surgery	Kendall TED thigh length stockings plus enoxaparin LMWH (n=32)	Enoxaparin LMWH alone (n=32)  Placebo (n=14)	DVT (assessed by ascending venography)  PE (assessed by perfusion lung scans)  Adverse events	Unclear
<b>Thigh length stockings plus LDH versus LDH</b>							
Wille-Jorgensen (1985)[21]	Denmark 196/176	VTE risk factors: All patients had at least one thromboembolic risk factor  Average age: 60 years (range 36-90)  Male: 60%	Abdominal surgery	TED thigh length stockings plus low dose heparin (n=86)	Low dose heparin (n=90)	DVT (assessed by radioiodine fibrinogen uptake test, ascending phlebography was performed if DVT was suspected)  PE (verified by pulmonary scintigraphy or autopsy)  Mortality  Patient adherence	High
Wille-Jorgensen (1991)[20]	Denmark 276/245	VTE risk factors: All patients had at least one thromboembolic risk factor  Average age: 72 years (range 37-95)  Male: 36%	Abdominal surgery	(1) Kendall TED thigh length stockings plus low dose heparin (n=79)  (2) Kendall TED thigh length stockings plus dextran (n=85)	Low dose heparin (n=81)	DVT (assessed by radioiodine fibrinogen uptake test, ascending phlebography was performed if DVT was suspected)  PE (verified by pulmonary scintigraphy and roentgenograms, if patients had signs or symptoms of PE)	Unclear

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
						Mortality Adverse events	
Torngren (1980)[17]	Sweden 110/98	VTE risk factors: 56% had malignancy  Average age: 66 years (range 42-86)  Male: 57%	Abdominal surgery	Kendall thigh length stockings randomly allocated to right or left leg plus low dose heparin (n=45 right leg, n=53 left leg)	Unstockinged leg (patients were their own controls)	DVT (assessed by radioiodine fibrinogen uptake test)  Fatal PE  Adverse events	High
<b>Thigh length stockings plus dextran versus dextran</b>							
Fredin (1989)[30]	Sweden 150/144	VTE risk factors: NR  Average age: 67 years  Male: 40%	Orthopaedic surgery	Comprinet thigh length stockings plus dextran (n=49)	(1) Dextran (n=48)  (2) Dextran plus additional preoperative dextran (n=47)	DVT (assessed by radioiodine fibrinogen uptake test and ascending phlebography)  PE (assessed by perfusion-ventilation scintigraphy)  Mortality  Adverse events  Patient adherence	Unclear
Ishak (1981)[26]	UK 76/74	VTE risk factors: 26% had previous hip surgery or DVT, 67% had varicose veins and 28% were smokers  Average age: 67 years  Male: 54%	Orthopaedic surgery	Kendall TED thigh length stockings (n=35)  Dextran was given to 26 patients	No stocking (n=41)  Dextran was given to 33 patients	DVT (assessed by venography)  PE (assessed by chest X-ray followed by ventilation and perfusion lung scanning in symptomatic patients)  Mortality	High
Bergqvist (1984)[13]	Sweden 88/80	VTE risk factors: 7.5% had history of VTE, 55% had malignant disease, 29% had varicose veins, 16% patients had major cardio-pulmonary disease  Average age: 68 years (range 52-85)  Male: 53%	General surgery	Thigh length stockings (16 mmHg at the ankle) randomly allocated to right or left leg plus dextran (n=41 right leg, n=39 left leg)	Unstockinged leg (patients were their own controls)	DVT (assessed by radioiodine fibrinogen uptake test)  PE (assessed by perfusion-ventilation scintigraphy)  Mortality	Low

<b>Study details</b>	<b>Location &amp; number randomised/analysed</b>	<b>Patient characteristics</b>	<b>Type of surgery</b>	<b>Intervention</b>	<b>Control</b>	<b>Outcomes assessed</b>	<b>Risk of bias</b>
						Adverse events	

**Supplementary table S3: Characteristics of trials of thigh or knee length stockings versus no treatment control**

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
<b>Thigh length stockings versus no treatment</b>							
Barnes (1978)[12]	USA  Not reported/18	VTE risk factors: 11% had a previous thrombo-phlebitis, 22% had a family predisposition, 22% had stasis changes, 33% had varicose veins and 67% patients were obese  Average age: 66 years  Male: 39%	Orthopaedic surgery	Kendall TED thigh length stockings (n=8)	No stocking (n=10)	DVT (assessed by Doppler ultrasound, verified by contrast phlebography when DVT suspected)  PE (assessed by chest roentgenograms, arterial blood gases and perfusion lung scanning in symptomatic patients)  Adverse events	Unclear
Turpie (1989)[19]	Canada  239/239	VTE risk factors: 3% had a history of DVT, 49% had a brain or spinal cord tumour and 23% had subarachnoid haemorrhage  Average age: 50 years (range 16-90)  Male: 60%	Neurosurgery	(1) Kendall TED thigh length stockings (n=80)  (2) Kendall TED thigh length stockings plus intermittent pneumatic compression (n=78)	No treatment (n=81)	DVT (assessed by radioiodine fibrinogen uptake test and impedance plethysmography, confirmed using bilateral ascending venography)  Mortality  Patient adherence	Unclear
Hui (1996)[31]	UK  177/138	VTE risk factors: 14% were smokers, average body mass index was nearly 28 for patients undergoing total knee replacement  Average age: 69 (range 49-88)  Male: NR	Orthopaedic surgery	Thigh length stockings (n=44)	(1) Knee length stockings (n=40)  (2) No stocking (n=54)	DVT (assessed by bilateral ascending venography)  Fatal PE (control group only)  Patient adherence and preference	High
Shirai (1985)[16]	Japan  126/126	VTE risk factors: NR. Patients with a history of VTE were excluded from the trial  Average age: 55 years (range 18-81)  Male: 51%	General surgery	Kendall TED thigh length stockings (pressure at the ankle: 18mmHg) randomly allocated to right or left leg (n=126 legs)	Unstockinged leg (patients were their own controls)	DVT (assessed by radioiodine fibrinogen uptake test)	Unclear

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
<b>Knee length stockings versus no treatment</b>							
Hui (1996)[31]  Recruited: 177 patients  Analysed: 138 patients	UK  177/138	VTE risk factors: 14% were smokers, average body mass index was nearly 28 for patients undergoing total knee replacement  Average age: 69 years (range 49-88)  Male: NR	Orthopaedic surgery	Thigh length stockings (n=44)	(1) Knee length stockings (n=40)  (2) No stocking (n=54)	DVT (assessed by bilateral ascending venography)  Fatal PE (control group only)  Patient adherence and preference	High
Tsapogas (1971)[18]	USA  95/95	VTE risk factors:  Average age: 56 years (range 40-83)  Male: 98%	Abdominal surgery	Knee length stockings (n=51)  In addition, the foot of the patient's bed was elevated, early ambulation was encouraged and dorsal and plantar flexion of the feet was instigated	No treatment (n=44)	DVT (assessed by radioiodine fibrinogen uptake test and phlebography)	Unclear
<b>Thigh length stockings plus LMWH versus no treatment</b>							
Kalodiki (1996)[14]	UK  93/78	VTE risk factors: 32% were obese, 45% had varicose veins, 5% had postphlebotic syndrome, 3% had history of previous DVT, 12% had leg oedema and 18% had chronic bronchitis. Patients with a history of recent DVT or active malignancy were excluded from the trial  Average age: 69 years (range 53-85)  Male: 49%	Orthopaedic surgery	Kendall TED thigh length stockings plus enoxaparin LMWH (n=32)	Enoxaparin LMWH alone (n=32)  Placebo (n=14)	DVT (assessed by ascending venography)  PE (assessed by perfusion lung scans)  Adverse events	Unclear

**Supplementary table S4: Characteristics of trials of other comparisons**

Study details	Location & number randomised/ analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
<b>Thigh length stockings versus LMWH (different durations)</b>							
Camporese (2008)[22]	Italy 1,761/1,602	VTE risk factors: 26% were smokers, 1% had family history of VTE, 9% were using hormonal compounds and the average body mass index was around 25.5. Patients with previous VTE or active malignancy were excluded from the trial  Average age: 42 years  Male: ratio around 1.6:1	Orthopaedic day surgery	Thigh length stockings (pressure at the ankle 30 to 40 mm Hg) worn on the operated on leg (n=597)	Nadroparin LMWH for 7 days (n=603)  Nadroparin LMWH for 14 days (n=402). This arm was stopped early for safety reasons	DVT (assessed by Doppler ultrasound)  PE (assessed by ventilation perfusion lung scan when PE was suspected)  Mortality  Adverse events  Patient adherence	Low
<b>Thigh length stockings versus pneumatic compression device</b>							
Caprini (1983)[23]	USA 102/77	VTE risk factors: 22% had history of thrombo-embolism, 26% were obese, 18% had varicose veins, 17% had malignancy, 13% had oedema, 9% had history of cerebral vascular accident or myocardial infarction, 8% had major infection, 8% were taking hormones, 5% had leg ulcers and one patient was at a high risk of bleeding  Average age: most aged over 60 years  Male: 40%	High risk general surgery	TED thigh length stockings (n=39)	Intermittent sequential compression device for 72 hours or until ambulation, then thigh length stockings (n=38)	DVT (assessed by radioiodine fibrinogen uptake test; venography or angiography, or both, were completed when dictated by clinical signs and symptoms)  PE  Mortality	Unclear
Mellbring (1986)[27]	Sweden 114/108	VTE risk factors: 36% had malignant disease and the average body mass index was 25.3  Average age: 66 years (range 50-85)  Male: 47%	Abdominal surgery	Low dose heparin plus dihydro-ergotamine (n=54)  Each patient wore a thigh length stockings randomly allocated to the right or left leg  The comparison of	Intermittent pneumatic calf compression (n=54)  Each patient wore a thigh length stockings randomly allocated to the right or left leg	DVT (assessed by radioiodine fibrinogen uptake test)  Mortality  Adverse events  Patient adherence	Unclear



Study details	Location & number randomised/ analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
				interest to this review is the stockings versus unstocked leg of the 54 patients allocated to low dose heparin plus dihydro-ergotamine			
Scurr (1987)[15]	UK 78/78	VTE risk factors: 31% had malignancy  Average age: 61 years  Male: 55%	General surgery	Kendall TED thigh length stockings randomly allocated to right or left leg (51% right leg, 49% left leg)  Once patients were fully ambulatory, STOCKINGS were applied to both legs  Patients also received intermittent pneumatic sequential compression.	Unstocked leg (patients were their own controls)	DVT (assessed by radioiodine fibrinogen uptake test, Doppler ultrasound and strain-gauge plethysmography, with positive findings confirmed by contrast venography)  PE	Unclear

**Supplementary table S5: Characteristics of trials not included in DVT results section**

Study details	Location & number randomised/analysed	Patient characteristics	Type of surgery	Intervention	Control	Outcomes assessed	Risk of bias
Rasmussen (1988)[29]	Denmark 249/248	VTE risk factors: around 58% of patients were obese, around 8.5% had a history of thrombosis, around 20% had varicose veins and around 43% were smokers  Average age: 62 years (range 40-90)  Male: 44%	Abdominal surgery	(1) Kendall TED knee length stockings (n=74)  (2) Kendall TED knee length stockings plus low dose heparin (n=89)	Low dose heparin (n=85)	PE assessed by clinical signs  Mortality  Note: this study also assessed DVT using 99mTc-labeled plasmin test. Due to the unreliability of this test, DVT results are not reported for this study	Unclear
Fasting (1985)[25]	Denmark 112/97	VTE risk factors: 16% had a previous DVT or varicose veins, 32% had malignancy, 14% had cardio-pulmonary disorders, 4% were taking oestrogen and 21% were obese  Average age: 60 years (range 39-87)  Male: 51%	General surgery	Kendall TED thigh length stockings (n=52)	Low dose heparin (n=45)	Fatal PE (assessed by autopsy)  Mortality  Adverse events  Note: this study also assessed DVT using 99mTc-labeled plasmin test. Due to the unreliability of this test, DVT results are not reported for this study	Unclear

**Supplementary table S6: The no interaction, random effects analysis. The median odds ratios and credible intervals of no treatment, thigh length stockings, knee length stockings and heparin compared to each other**

Intervention	Comparator											
	No treatment		Thigh		Knee		Heparin		Thigh + heparin		Knee +heparin	
	Med*	CrI***	Med	CrI	Med	CrI	Med	CrI	Med	CrI	Med	CrI
No treatment	-	-	2.60	(1.58 to 4.87)	1.48	(0.72 to 3.69)	3.81	(1.15 to 10.55)	9.88	(2.47 to 38.04)	5.62	(1.44 to 22.75)
Thigh*	0.38	(0.21 to 0.63)	-	-	0.57	(0.28 to 1.21)	1.47	(0.41 to 3.75)	3.81	(1.15 to 10.55)	2.16	(0.62 to 6.77)
Knee	0.68	(0.27 to 1.38)	1.76	(0.82 to 3.53)	-	-	2.58	(0.53 to 8.40)	6.70	(1.40 to 25.14)	3.81	(1.15 to 10.55)
Heparin	0.26	(0.09 to 0.87)	0.68	(0.27 to 2.42)	0.39	(0.12 to 1.89)	-	-	2.60	(1.58 to 4.87)	1.48	(0.72 to 3.69)
Thigh + heparin*	0.10	(0.03 to 0.41)	0.26	(0.09 to 0.87)	0.15	(0.04 to 0.72)	0.38	(0.21 to 0.63)	-	-	0.57	(0.28 to 1.21)
Knee + heparin	0.18	(0.04 to 0.70)	0.46	(0.15 to 1.62)	0.26	(0.09 to 0.87)	0.68	(0.27 to 1.38)	1.76	(0.82 to 3.53)	-	-

\*By definition in the no interaction model, Thigh vs No treatment is equal to Thigh + heparin vs Heparin, etc.

\*\*Med: median; \*\*\*CrI: Credible interval