

Clinical trials of mechanical devices for thromboprophylaxis for thrombosis prevention in orthopaedic surgery

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1 GCS (adjunctive therapy)

Trial	Treatments	Patients	Trials design and methods
GCS + dextran vs dextran			
Fredin , 1989 n=44/46 follow-up:	graded compression stockings + dextran versus dextran alone	patients undergoing THR surgery	parallel groups
GCS + LMWH vs LMWH			
Kalodiki (GCS+LMWH vs LMWH) , 1996 n=NA follow-up:	enoxaparin (40 mg once daily) plus graduated elastic compression (TEDR stockings) for 8-12 days versus low molecular weight heparin: (enoxaparin 40 mg once daily)	patients having elective total hip replacement	Parallel groups

References

Fredin, 1989:

Fredin H, Bergqvist D, Cederholm C, Lindblad B, Nyman U Thromboprophylaxis in hip arthroplasty. Dextran with graded compression or preoperative dextran compared in 150 patients. Acta Orthop Scand 1989;60:678-81 [[2483018](#)]

Kalodiki (GCS+LMWH vs LMWH), 1996:

Kalodiki EP, Hoppensteadt DA, Nicolaides AN, Fareed J, Gill K, Regan F, al-Kutoubi A, Cunningham DA, Birch R, Harris N, Hunt D, Johnson J, Marx C Deep venous thrombosis prophylaxis with low molecular weight heparin and elastic compression in patients having total hip replacement. A randomised controlled trial. Int Angiol 1996;15:162-8 [[8803642](#)]

2 Graduated compression stockings

Trial	Treatments	Patients	Trials design and methods
GCS vs no prophylaxis			
Barnes , 1978 n=10/8 follow-up:	graded-compression stockings versus nostockings	patients undergoing total hip replacement	parallel groups
*Inada , 1983 n=NA follow-up:	graduated compression stocking on one leg versus no GCS on the other leg serving as a control.	patients undergoing major surgery	

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Trial	Treatments	Patients	Trials design and methods
*Ohlund , 1983 n=NA follow-up:	-	elective total hip arthroplasty	
*Wille-Jorgensen , 1989 n=NA follow-up:	regional anesthesia and graded compression stockings versus general anesthesia	elective hip arthroplasty	
Holford , 1976 n=48/47 follow-up:	Graded compression versus control	patients undergoing major operations	parallel groups
GCS vs LMWH			
Camporese , 2008 n=660/667 follow-up:	full-length graduated compression stocking for 7 days versus once-daily subcutaneous injection of LMWH (nadroparin, 3800 anti-Xa IU) for 7 days or 14 days	patients undergoing knee arthroscopy	Parallel groups open Italy
Knee length GCS vs Thigh length GCS			
Hui THR , 1996 n=18/22 follow-up:	Knee length GCS versus Thigh length GCS	Orthopaedic patients THR	parallel groups
Hui TKR , 1996 n=22/32 follow-up:	Knee length GCS versus Thigh length GCS	Orthopaedic patients TKR	parallel groups
William , 1996 n=NA follow-up:	Knee-length graduated compression stockings versus thigh-length graduated compression stoc	orthopaedic surgery	
GCS vs UFH			
Fasting , 1985 n=NA follow-up:	graded compression stockings (TED stockings, Kendall Co.) versus low-dose heparin (Heparin Leo 5 000 I.U. subcutaneously twice daily)	elective major surgery	Parallel groups

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Barnes, 1978:

Barnes RW, Brand RA, Clarke W, Hartley N, Hoak JC Efficacy of graded-compression antiembolism stockings in patients undergoing total hip arthroplasty. Clin Orthop Relat Res 1978;:61-7 [679555]

*Inada, 1983:

Inada K, Shirai N, Hayashi M, Matsumoto K, Hirose M Postoperative deep venous thrombosis in Japan. Incidence and prophylaxis. Am J Surg 1983;145:775-9 [6859416]

*Ohlund, 1983:

Ohlund C, Fransson SG, Starck SA Calf compression for prevention of thromboembolism following hip surgery. Acta Orthop Scand 1983;54:896-9 [6367345]

*Wille-Jorgensen, 1989:

Wille-Jrgensen P, Christensen SW, Bjerg-Nielsen A, Stadeager C, Kjaer L Prevention of thromboembolism following elective hip surgery. The value of regional anesthesia and graded compression stockings. *Clin Orthop Relat Res* 1989;:163-7 [[2791385](#)]

Holford, 1976:

Holford CP Graded compression for preventing deep venous thrombosis. *Br Med J* 1976;2:969-70 [[788855](#)]

Camporese, 2008:

Camporese G, Bernardi E, Prandoni P, Noventa F, Verlato F, Simioni P, Ntita K, Salmistraro G, Frangos C, Rossi F, Cordova R, Franz F, Zucchetta P, Kontothanassis D, Andreozzi GM Low-molecular-weight heparin versus compression stockings for thromboprophylaxis after knee arthroscopy: a randomized trial. *Ann Intern Med* 2008;149:73-82 [[18626046](#)]

Hui THR, 1996:

Hui AC, Heras-Palou C, Dunn I, Triffitt PD, Crozier A, Imeson J, Gregg PJ Graded compression stockings for prevention of deep-vein thrombosis after hip and knee replacement. *J Bone Joint Surg Br* 1996;78:550-4 [[8682818](#)]

Hui TKR, 1996:

Hui AC, Heras-Palou C, Dunn I, Triffitt PD, Crozier A, Imeson J, Gregg PJ Graded compression stockings for prevention of deep-vein thrombosis after hip and knee replacement. *J Bone Joint Surg Br* 1996;78:550-4 [[8682818](#)]

William, 1996:

Williams AM, Davies PR, Sweetnam DI, Harper G, Pusey R, Lightowler CD Knee-length versus thigh-length graduated compression stockings in the prevention of deep vein thrombosis. *Br J Surg* 1996;83:1553 [[9014671](#)]

Fasting, 1985:

Fasting H, Andersen K, Kraemmer Nielsen H, Husted SE, Koopmann HD, Simonsen O, Husegaard HC, Vestergaard Madsen J, Pedersen TK Prevention of postoperative deep venous thrombosis. Low-dose heparin versus graded pressure stockings. *Acta Chir Scand* 1985;151:245-8 [[3892994](#)]

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3 About TrialResults-center.org

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Rigorous meta-analysis method is used to populate TrialResults-center: widespread search of published and non published trials, study selection using pre-specified criteria, data extraction using standard form.

TrialResults-center is continually updated on a weekly basis. We continually search all new results (whatever their publication channel) and these news results are immediately added to the database with a maximum of 1 week.

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