

Scripps researchers recommend mobile compression device to prevent DVT after joint surgery

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Research from The Shiley Center for Orthopaedic Research and Education at Scripps Clinic could change how patients are treated to prevent blood clots after joint replacement surgery. A study published as the lead article in the current issue of the *Journal of Bone and Joint Surgery* determined that after lower extremity joint replacement surgery a mobile compression device was just as effective as blood thinners in preventing deep vein thrombosis (DVT), but without negative side effects including bleeding complications.

The multicenter study, led by Scripps Clinic orthopedic surgeon Clifford Colwell, M.D., evaluated the efficacy of a mobile compression device that is small and portable enough for patients to use at home for 10 days or longer after [joint replacement surgery](#).

"Blood thinners have long been considered the standard of care to prevent [blood clots](#) after [orthopedic surgery](#), but they can have side effects that are concerning for many patients," said Dr. Colwell.

"Through this research we have found and established an equally effective means of accomplishing the same goal with an added layer of safety for patients."

From April 1 to Sept. 20, 2011, 10 medical centers in the United States participated in a registry to collect data on the occurrence of DVT in 3,000 patients who used the mobile compression device after surgery.

The rate of DVT in patients who used the compression device was consistent with the rate of DVT in similar patient populations who were prescribed [blood thinners](#), which is approximately 1 percent.

The device used during the study was the ActiveCare+S.F.T., which works by delivering compressions to the leg that coordinate with a patient's respiration rate thereby improving blood flow. The manufacturer of the device funded the registry used in the study but did not have any role in the development of the registry design or protocol. The authors did not receive compensation for their role in the study.

Provided by The Scripps Research Institute

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