

<b>Summary American Academy of Orthopedic Surgeons (AAOS) Clinical Guideline on Prevention of Symptomatic Pulmonary Embolism in Patients Undergoing Total Hip or Knee Arthroplasty</b>	
<b>Standard risk PE, Standard risk Bleeding*</b> Aspirin LMWH synthetic pentasaccharides warfarin <i>Level III, Grade B recommendation</i>	<b>Standard risk PE, Elevated risk Bleeding</b> aspirin warfarin none <i>Level III, Grade C recommendation</i>
<b>Elevated risk PE, Standard risk Bleeding</b> LMWH synthetic pentasaccharides warfarin <i>Level III, Grade B recommendation</i>	<b>Elevated risk PE, Elevated risk Bleeding</b> Aspirin warfarin none <i>Level III, Grade C recommendation</i>
Additional notes about AAOS Recommendations: 1. "The risk of PE, however, differs among different patients; however, there is currently no satisfactory evidence-based risk stratification system." (page 12) 2. Recommendation 1.2 All patients should be assessed pre-operatively for elevated risk (greater than standard risk) of major bleeding. (Level III, Grade C) Note: Grade of Recommendation reduced because of lack of consistent evidence on risk stratification of patient populations. 3. Recommendation 2.1 Patients should be considered for intra-operative and/or immediate postoperative mechanical prophylaxis. (Level III, Grade B) 4. Recommendation 3.1 Post-operatively, patients should be considered for continued mechanical prophylaxis until discharge to home. (Level IV, Grade C)	
<b>SCIP VTE 1 Performance Measure Hip or Knee Arthroplasty</b>	
<b>No Bleeding Risk Documented</b>	<b>Documented Bleeding Risk</b>
LMWH synthetic pentasaccharides warfarin  Knee arthroplasty only: intermittent pneumatic compression devices venous foot pump	Mechanical Prophylaxis <i>[any other modality (including aspirin or warfarin) can be added]</i>

\*This is the ONLY category where there is a significant difference between the recommendations of the AAOS and the national SCIP performance measure. In the AAOS guideline they recommend aspirin alone for those patients who are at "standard risk of both PE and major bleeding."

So, why does the SCIP measure differ?

1. As acknowledged in the AAOS guideline there is no validated risk assessment for determining what "standard" risk of PE is. Indeed many experts feel that total joint arthroplasty patients are all at significant risk of venous thromboembolism (VTE).
2. The AAOS guideline only addresses symptomatic pulmonary embolism and does not discuss deep vein thrombosis or asymptomatic PE. Based on previous studies, 30% of survivors who have VTE will develop recurrent VTE within 10 years, and 28% of survivors develop venous stasis syndrome within 20 years. VTE is a chronic disease for many patients after it occurs and DVT is an important outcome.
3. The American College of Chest Physicians in their 8<sup>th</sup> Edition Evidence-based Clinical Practice Guideline provides the following recommendation: "We recommend against the use of aspirin alone as thromboprophylaxis against VTE for any patient group (Grade 1A)."
4. All of the recommendations for pharmacoprophylaxis in the AAOS guideline are supported by Level III evidence.