



AMERICAN ACADEMY OF ORTHOPAEDIC SURGEONS CLINICAL PRACTICE GUIDELINE ON

Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty

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AAOS Guideline on Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty

Summary of Recommendations

The following is a summary of the recommendations of the AAOS' clinical practice guideline, Preventing Venous Thromboembolic Disease in Patients Undergoing Elective Hip and Knee Arthroplasty. This summary does not contain rationales that explain how and why these recommendations were developed, nor does it contain the evidence supporting these recommendations. All readers of this summary are strongly urged to consult the full guideline and evidence report for this information. We are confident that those who read the full guideline and evidence report will see that the recommendations were developed using systematic evidence-based processes designed to combat bias, enhance transparency, and promote reproducibility.

This summary of recommendations is not intended to stand alone. Treatment decisions should be made in light of all circumstances presented by the patient. Treatments and procedures applicable to the individual patient rely on mutual communication between patient, physician, and other healthcare practitioners.

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Disclaimer: This clinical guideline was developed by an AAOS physician volunteer Work Group and is provided as an educational tool based on an assessment of the current scientific and clinical information and accepted approaches to treatment. It is not intended to be a fixed protocol as some patients may require more or less treatment. Patient care and treatment should always be based on a clinician's independent medical judgment given the individual clinical circumstances.

The complete AAOS guideline can be found at http://www.aaos.org/Research/guidelines/VTE/VTE_full_guideline.pdf

1. We recommend against routine post-operative duplex ultrasonography screening of patients who undergo elective hip or knee arthroplasty. (**Grade of Recommendation: Strong**)
2. Patients undergoing elective hip or knee arthroplasty are already at high risk for venous thromboembolism. The practitioner might further assess the risk of venous thromboembolism by determining whether these patients had a previous venous thromboembolism. (**Grade of Recommendation: Weak**) Current evidence is not clear about whether factors other than a history of previous venous thromboembolism increase the risk of venous thromboembolism in patients undergoing elective hip or knee arthroplasty and, therefore, we cannot recommend for or against routinely assessing these patients for these factors. (**Grade of Recommendation: Inconclusive**)
3. Patients undergoing elective hip or knee arthroplasty are at risk for bleeding and bleeding-associated complications. In the absence of reliable evidence, it is the opinion of this work group that patients be assessed for known bleeding disorders like hemophilia and for the presence of active liver disease which further increase the risk for bleeding and bleeding-associated complications. (**Grade of Recommendation: Consensus**) Current evidence is not clear about whether factors other than the presence of a known bleeding disorder or active liver disease increase the chance of bleeding in these patients and, therefore, we are unable to recommend for or against using them to assess a patient's risk of bleeding. (**Grade of Recommendation: Inconclusive**)
4. We suggest that patients discontinue antiplatelet agents (e.g., aspirin, clopidogrel) before undergoing elective hip or knee arthroplasty. (**Grade of Recommendation: Moderate**)
5. We suggest the use of pharmacologic agents and/or mechanical compressive devices for the prevention of venous thromboembolism in patients undergoing elective hip or knee arthroplasty, and who are not at elevated risk beyond that of the surgery itself for venous thromboembolism or bleeding. (**Grade of Recommendation: Moderate**) Current evidence is unclear about which prophylactic strategy (or strategies) is/are optimal or suboptimal. Therefore, we are unable to recommend for or against specific prophylactics in these patients. (**Grade of Recommendation: Inconclusive**) In the absence of reliable evidence about how long to employ these prophylactic strategies, it is the opinion of this work group that patients and physicians discuss the duration of prophylaxis. (**Grade of Recommendation: Consensus**)
6. In the absence of reliable evidence, it is the opinion of this work group that patients undergoing elective hip or knee arthroplasty, and who have also had a previous venous thromboembolism, receive pharmacologic prophylaxis and mechanical compressive devices. (**Grade of Recommendation: Consensus**)
7. In the absence of reliable evidence, it is the opinion of this work group that patients undergoing elective hip or knee arthroplasty, and who also have a known bleeding disorder (e.g., hemophilia) and/or active liver disease, use mechanical compressive devices for preventing venous thromboembolism. (**Grade of Recommendation: Consensus**)
8. In the absence of reliable evidence, it is the opinion of this work group that patients undergo early mobilization following elective hip and knee arthroplasty. Early mobilization is of low cost, minimal risk to the patient, and consistent with current practice. (**Grade of Recommendation: Consensus**)
9. We suggest the use of neuraxial (such as intrathecal, epidural, and spinal) anesthesia for patients undergoing elective hip or knee arthroplasty to help limit blood loss, even though evidence suggests that neuraxial anesthesia does not affect the occurrence of venous thromboembolic disease. (**Grade of Recommendation: Moderate**)
10. Current evidence does not provide clear guidance about whether inferior vena cava (IVC) filters prevent pulmonary embolism in patients undergoing elective hip and knee arthroplasty who also have a contraindication to chemoprophylaxis and/or known residual venous thromboembolic disease. Therefore, we are unable to recommend for or against the use of such filters. (**Grade of Recommendation: Inconclusive**)