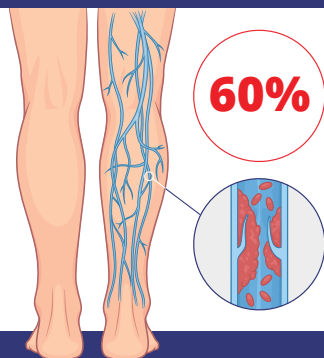


# Preventing VTE in Orthopedic Surgery

## Key Guidelines at a Glance



60%

**The incidence of venous thromboembolism (VTE) after orthopedic surgery without thromboprophylaxis can be as high as 60%**

VTE is a significant and preventable cause of illness and death following orthopedic surgery.

### Better Together: The Optimal Strategy

The concurrent use of pharmacologic and mechanical prophylaxis is more effective than either approach alone, offering superior protection. A multidisciplinary, patient-centered approach is essential.

## The Foundational Step: Dual Risk Assessment



All patients must undergo individualized risk assessment for **BOTH VTE and bleeding** before surgery. The risk of VTE must be balanced against the risk of bleeding for each patient.

## Know the Key Risk Factors

### VTE Risk Factors

#### Patient-Related:

- History of previous VTE
  - Age >60 years
  - Obesity
- Active cancers
- Reduced mobility

#### Procedure-Related:

- High-risk surgeries like total hip (THA) or knee (TKA) arthroplasty, and hip fracture surgery carry the highest risk



### Bleed Risk Factors

#### Patient-Related:

- History of previous bleeding (especially in past 3 months)
- Active gastrointestinal or genitourinary cancer
- Low perioperative platelet count (<50 x 10<sup>9</sup>/L)
  - Advanced age

#### Procedure-Related:

- Surgery location (Spine > THA > TKA)
- Increased surgery time/length

## The Pillars of Prophylaxis



### Pillar 1: Pharmacologic Prophylaxis

**This is the cornerstone of VTE prevention.**

Primary options include low molecular weight heparin (LMWH), direct oral anticoagulants (DOACs), and acetylsalicylic acid (ASA).



### Pillar 2: Mechanical Prophylaxis

**An essential adjunct, particularly for patients with a high risk of bleeding.**

Key methods include intermittent pneumatic compression (IPC) and graduated compression stockings (GCS).

Typical Duration for THA/TKA: 14-35 days

Critical: Apply IPC before anesthesia induction



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