HIP & KNEE SURGERY TOOLKIT
WHAT YOU NEED TO KNOW

To help reduce patients’ risk of developing blood clots after orthopedic surgeries.

National Blood Clot Alliance

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Undergoing hip or knee replacement surgery can be overwhelming and difficult, both physically and emotionally. Patients and caregivers have so much information to absorb and protocols to manage. One important and often overlooked action is to understand your risk for potentially life-threatening blood clots. This information is critical because hospitalization and surgery significantly increase your risk of getting a blood clot.
WHAT IS A BLOOD CLOT?

A blood clot is a gel-like collection of blood that can form inside a blood vessel (vein or artery). Blood clotting is a normal bodily process, also called coagulation, that helps prevent excessive bleeding from an injury or cut. However, sometimes blood clots form when they aren’t needed and cause serious medical problems, such as deep vein thrombosis (DVT) and pulmonary embolism (PE).

TYPES OF BLOOD CLOTS

- **Deep vein thrombosis (DVT):** A blood clot that occurs in a deep vein, most often in the leg or arm.
- **Pulmonary embolism (PE):** A blood clot that started somewhere else in the body, usually a DVT, that breaks free and becomes lodged in the lungs, blocking blood flow. This is a very serious and life-threatening condition that must be treated immediately.
- **Venous thromboembolism (VTE):** Blood clots that occur in the veins, refers collectively to DVT and PE.
Hip and knee replacement patients face the highest risk of developing DVT between two to 10 days after surgery and remain at risk for approximately three months. Without preventive treatment, up to 80 percent of orthopedic surgical patients may develop DVT, with 10 to 20 percent developing PE. About half of all blood clots occur during or within three months of a hospital stay or surgery. Nearly half of all hospital patients do not receive proper prevention measures. DVT and PE remain the most common cause for emergency re-admission and death following joint replacement surgeries.

Downloadable Resource: bit.ly/3FGK3Jo
In addition to orthopedic surgery-associated risk factors, it is important to consider all of your risk factors for blood clots. The chance of a blood clot increases with each additional risk factor. Some other common risk factors include:

- Previous blood clot
- Family history of blood clots or inherited clotting disorder
- Accident, severe trauma or muscle injury, broken bone
- Immobility or sitting for longer than four hours
- Pregnancy and childbirth
- Cancer and cancer treatments
- Oral contraceptives or hormone replacement therapy containing estrogen
- Obesity
- Smoking
- Age 55+
- Medical conditions, such as heart and lung diseases, or diabetes
SIGNS AND SYMPTOMS

✔ Deep Vein Thrombosis (DVT)
  • Swelling, usually in one leg (or arm)
  • Leg pain or tenderness often described as a cramp or charley horse
  • Reddish or bluish skin discoloration
  • Leg (or arm) warm to touch

Contact your doctor as soon as possible if you have any of these symptoms.

Learn more about how a DVT is diagnosed here.  

✔ Pulmonary Embolism
  • Sudden shortness of breath
  • Sharp, stabbing chest pain; may get worse with deep breath
  • Rapid heart rate
  • Unexplained cough, sometimes with bloody mucus

Call an ambulance or 9-1-1 immediately for treatment in the ER if you experience these PE symptoms.

Learn more about how a PE is diagnosed here.
SIGNS AND SYMPTOMS

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BLOOD CLOT AWARENESS: KNOW THE SIGNS & SYMPTOMS

Swelling in the leg

Chest pain back pain when breathing

Tenderness leg cramps

Leg discoloration (red/blue hue)

Out of breath

Overdrive racing heart

Pass out lightheaded

Time call for help 911

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Learn more about blood clots here
BLOOD CLOT PREVENTION

- Make a Plan
  Work with your healthcare team and make a blood clot prevention plan before, during, and after a surgery that is specific to your medical history and blood clot risk.

- Know the Signs and Symptoms
  It is most important that you recognize the signs and symptoms of blood clots and seek immediate medical attention if you experience any of them.

- Take Prescribed Anticoagulants
  Your doctor will typically start you on anticoagulants the day after surgery, continuing throughout your hospital stay and into your at-home rehabilitation. The specific duration and type of medication prescribed will be determined by your physician.

- Exercise and Physical Therapy
  You will likely collaborate with a physical therapist after surgery to engage in targeted exercises aimed at regaining joint mobility, enhancing lower body strength, and promoting better circulation in your deep veins.

- Mechanical Blood Clot Prevention
  Your doctor may prescribe compression stockings or suggest pneumatic compression devices. These devices prevent blood clot formation by aiding blood circulation in the legs.
While anticoagulants are prescribed to prevent blood clots for orthopedic surgery patients, approximately 3 percent still develop a blood clot.

It’s important to note that blood clots are highly treatable. Familiarize yourself with the signs and symptoms, and promptly inform your doctor if you experience any of them. If you are diagnosed with a blood clot, your medication will typically be adjusted from a prophylactic/preventative dosage to a therapeutic dosage.

Early diagnosis and treatment play a crucial role in reducing the complications associated with blood clots, including the risk of mortality.
What is my risk of developing blood clots after the surgery?
Discuss any family history of blood clots with your physician.
What is the plan to prevent blood clots post-surgery?
Will I require compression stockings, and will they be provided?
What type of post-surgery physical therapy is planned, including frequency (number of weekly sessions)? Should I contact the therapist before surgery to arrange this?
Are there specific exercises I can do before surgery to strengthen my muscles?
What type of anticoagulant medication do you intend to prescribe for me, and how long will I need to take it?
What blood tests are necessary for this medication, and how often should I get tested? Can I perform these tests at home, or do I need to visit your office or a lab?
What are the common side effects associated with this medication?
Is it crucial to take this medication at the same time daily? Are there any medicines, herbs, or supplements that I should avoid while on this medication?
Will I need to make dietary changes while on this medication? Are there specific foods I should include or avoid?
What is the expected cost of this medication for me, and is it typically covered by insurance? (Note: You should also contact your insurance company directly to discuss your specific coverage.)
PATIENT STORIES

JENNY’S STORY
“How I overcame the worst time in my life at 17 years old.”
Risk Factor:
• Torn ACL & Meniscus
Diagnosis:
• Deep Vein Thrombosis (DVT)

MANU’S STORY
“A super hero taken too soon.”
Risk Factor:
• Broken Ankle
Diagnosis:
• Deep Vein Thrombosis (DVT)

DEANNE’S STORY
“Blood clots almost ended my life.”
Risk Factor:
• Knee Replacement Surgery
Diagnosis:
• Deep Vein Thrombosis (DVT)
• Pulmonary Embolism (PE)