



BACKGROUND ON THROMBOSIS FOR JOURNALISTS: **CONNECTING THE DOTS BETWEEN COVID-19 AND THROMBOSIS**

Overview

Though novel [coronavirus](#) symptoms thus far have presented within the respiratory system, the infection is swiftly showing to be an all-out, system-wide assault that reaches far past the lungs. Health professionals in the bleeding and clotting community have begun to report an unexpected prevalence of blood clotting among COVID-19 cases, in what could pose a perfect storm of potentially fatal risk factors.

So what are blood clots and why are they a deadly combination with COVID-19?

What is Thrombosis?

Thrombosis is the formation of a blood clot in a blood vessel. The vessel may be any vein or artery as for example, in a deep vein thrombosis (venous) or a coronary artery (arterial).

What Happens Once a Clot is Formed?

Once formed, a clot can slow or block normal blood flow, and even break loose and travel to an organ. A clot that travels to the circulation is called an embolism. Thrombosis is the often preventable underlying pathology of heart attack, thromboembolic stroke, and venous thromboembolism ([VTE](#)), the top three cardiovascular killers.

Are There Types of Thrombosis?

Yes. Thrombosis is categorized by where it occurs in the body. Within these categories, it may be classified further.

- Venous thromboembolism or VTE is a condition in which blood clots form most often in the deep veins of the leg, known as deep vein thrombosis or DVT, and can travel in the circulation and lodge in the lungs, known as pulmonary embolism or PE.
- **Remember this simple equation: DVT + PE = VTE (a deadly combination)**

Can Thrombosis Be Prevented?

Research suggests that VTEs are often preventable, and evidence-based prevention strategies can stop the development of clots in 'at-risk' individuals.

To identify whether a patient is 'at-risk,' healthcare professionals should conduct a VTE risk assessment, which is tool or questionnaire that gathers information about a patient's age, medical history, medications and specific lifestyle factors. Information is then used to discern a patient's potential risk (e.g., high, moderate or low risk) for developing blood clots in the legs or lungs.



What are the most common tests my care team may order to see if I have a blood clot?

- A blood test called a D-Dimer
- An ultrasound of the arm or leg to look for the DVT
- A CAT scan of the chest with intravenous dye to look for a PE

Individuals who are deemed 'at-risk' should be given appropriate prevention (referred to as "prophylaxis"), which can include:

- Anti-clotting medications (e.g., blood thinners, referred to as "anticoagulants")
- Mechanical devices (e.g., compression stockings, intermittent pneumatic compression devices or rapid inflation venous foot pumps)

Hospital patients may also be instructed to move around or do foot/leg exercises as soon and as often as possible.