

## Approach to Pulmonary Embolism

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Pulmonary embolism (PE) results when an embolus (most commonly from leg veins) travels to the pulmonary vessels, become lodged, and cause infarct of lung tissue

Symptoms: Shortness of breath, chest pain, lightheadedness, syncope

Signs: tachycardia, tachypnea, hypotension, hypoxia, EKG changes

### PE Pathway (Diagnostic Approach):

- 1) If a patient has **any** sign or symptom of PE, then it must be considered! (yes, this is like half of ED patients)
- 2) **Exclude people with clear alternate cause** of their manifestation
- 3) **Calculate the Well's Score** (low, medium, high risk)
  - a. **Low risk patients -> See if patient meets any PERC criteria**, if not, no further PE workup needed
- 4) Get a **D-Dimer** if:
  - a. **Low Well's score and meet 1+ PERC criteria**
  - b. **Medium Well's score**
- 5) **Get a CTA if: elevated D-Dimer or high Well's Score**

### Quick Facts

- PE is the most missed and over tested diagnosis in the ED
- A young healthy person may have SoB on exertion that improves with rest
- **Know the S1Q3T3 EKG pattern** (deep S in lead I, Q wave and T wave inversion in III)
- Get the MD Calc phone app and never forget a clinical tool criteria again!
- **Patient's with PE need anticoagulation!** Type + duration depends on the cause of their PE's and other medical history
- Bilateral leg ultrasound is NOT sensitive enough to rule out PE!