

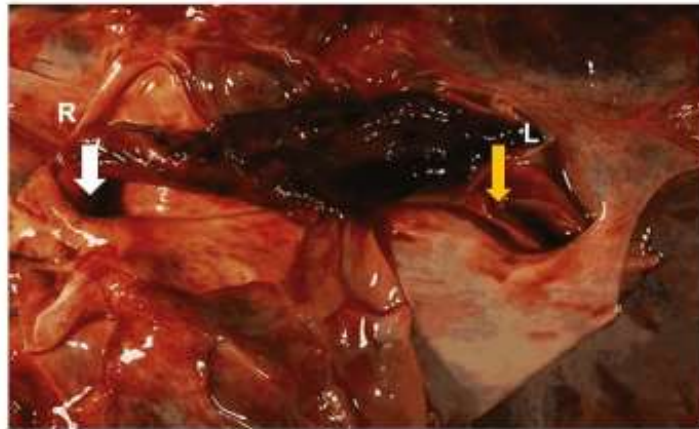


## XV. Diseases of the Cardiovascular System

<b>Thrombosis</b>				
<b>Femoral artery (and branches):</b>	<i>Show a thrombus</i>			
	<b>The thrombus:</b>	Big Dull Greyish-white Has a granular surface		
				
<p><b>N.B.:</b>  <b>Varieties of thrombi are:</b></p> <ol style="list-style-type: none"> <li>1. <b>Pale (true) thrombus:</b> As the vegetations of rheumatic endocarditis (on the fortified line of cusps).</li> <li>2. <b>Red thrombus:</b> Usually venous and more soft and friable.</li> <li>3. <b>Mixed thrombus:</b> A combination.</li> </ol> <p>Any one of these types may be <b>septic or aseptic</b>.</p>				

<b>Embolism</b>	<b>I- 6-24</b>			
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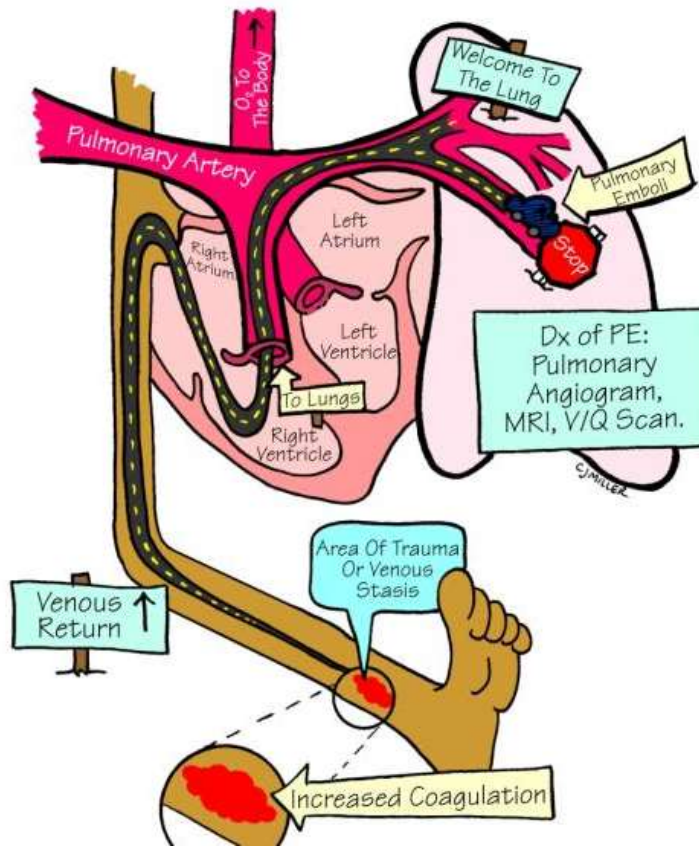


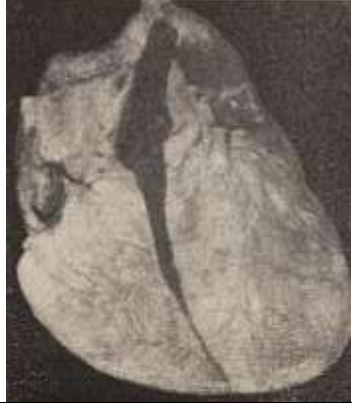
**Pulmonary embolism, gross;**  
 A Saddle embolus that bridges the pulmonary artery trunk as it divides into right and left main pulmonary arteries.  
 A common lab test is an increased **plasma D-dimer**

<b>Heart</b>	Shows no particular gross changes except in right side		
<b>Right ventricle</b>	Is opened Filled with an embolus (? thrombus)		
<b>Pulmonary artery</b>	Is opened Shows an impacted embolus (? thrombus)		
<b>The embolus</b>	<ul style="list-style-type: none"> <li>• Is impacted in the vessel filling it</li> <li>• Moderate in size</li> <li>• Somewhat cylindrical</li> <li>• Rather coiled (in parts)</li> <li>• Mostly dull</li> <li>• Pale Greyish-red</li> <li>• Granular (in parts)</li> <li>• Somewhat lamellated</li> </ul>		

- N.B.:**
- This patient died of collapse after **she had been operated upon in the uterus.**
  - Death occurred on **the seventh day after the operation.**
  - An embolus appears more coiled than a thrombus, is more curled and is not adherent.
  - **The sites of arrest of an embolus:**
    - The first vessel which is too small to allow its passage.
    - Bifurcation of blood vessels.
    - Sudden diminution in caliber of the vessel.

## THE PULMONARY EMBOLI HIGHWAY



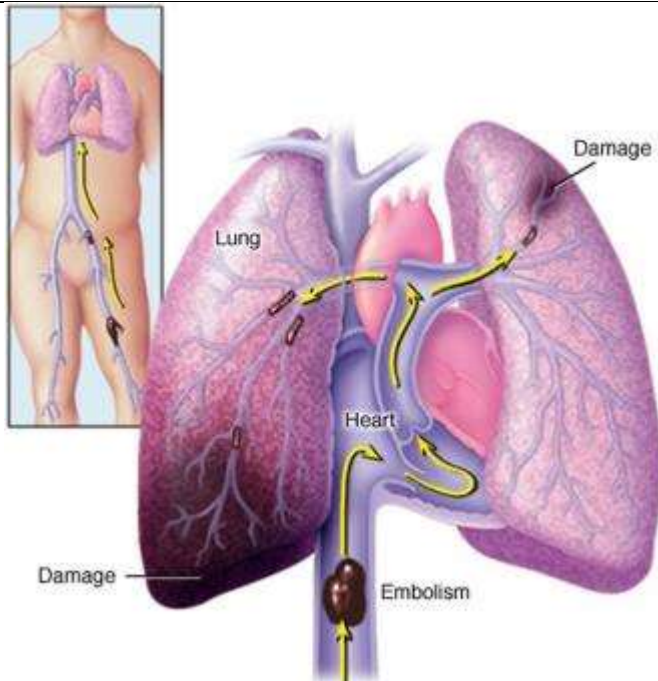
<b>Embolism</b>		
<b>Femoral artery</b>	Is opened (in parts) Shows an embolus	
<b>The embolus</b>	Is elongated Fills the lumen of the vessel (completely) Is greyish-red	
		<p><b>Figure 62</b>  <b>Nature</b>  <b>Pulmonary Artery Embolism</b>  <b>Specimen No1-6.24.</b>  <b>Reference P. 144</b></p>

**N.B.:**

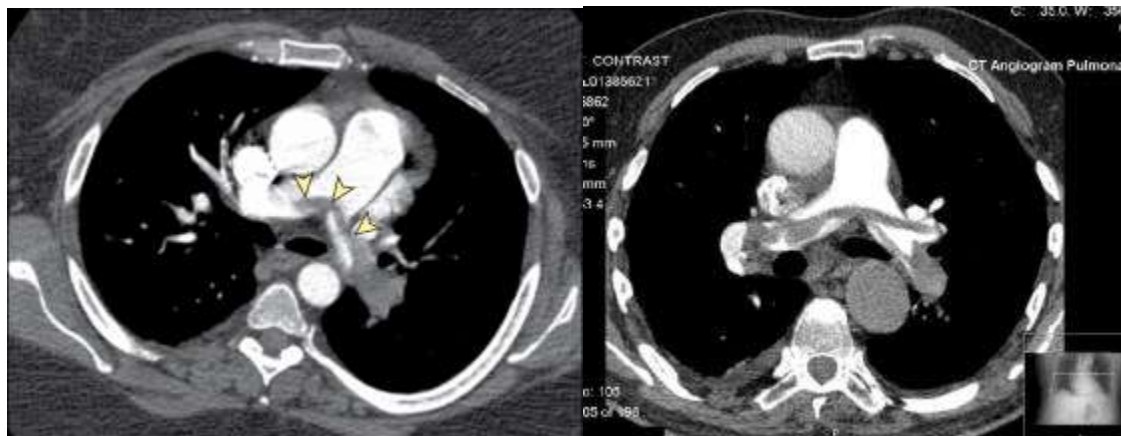
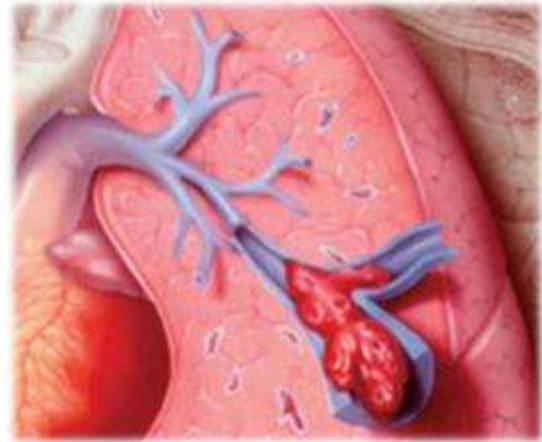
The source of this embolus was from detached vegetations of subacute bacterial endocarditis. It is observable that under ordinary conditions, arteries are usually empty after death.

<b>Emboli of:</b>	<b>1. Systemic veins</b> <b>2. Right cardiac cavities</b> <b>3. Pulmonary artery</b>	<b>Are arrested in the vessels of lungs.</b>
<b>Emboli of:</b>	<b>1. Pulmonary veins</b> <b>2. Left cardiac cavity</b> <b>3. Arteries</b>	Are arrested in <b>systemic arteries and their capillaries</b> as in: <b>Spleen, Brain, Kidneys.</b>

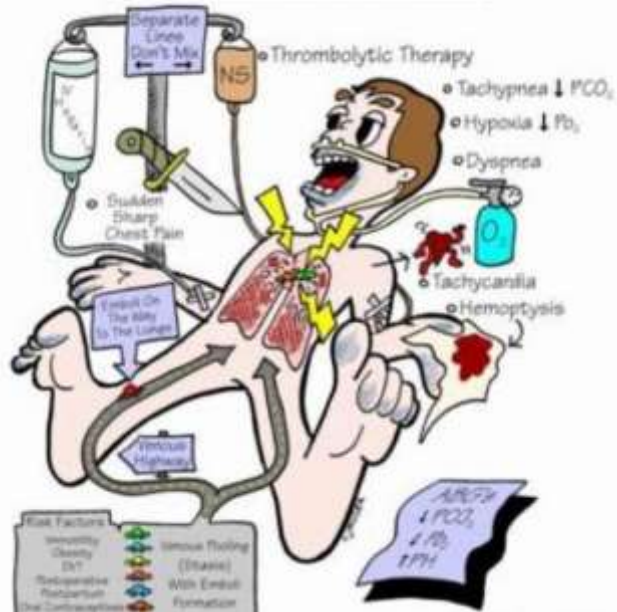
Emboli originating in organs drained into portal venous system → are arrested in branches of the portal vein in the liver.



# Pulmonary Embolism



# PULMONARY EMBOLUS



## Massive Pulmonary Saddle Embolus

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2. Massive pulmonary thromboemboli, with complete occlusion of pulmonary outflow tract; numerous coiled thrombi in right and left pulmonary arteries, pulmonary tract, and right ventricle

Parenchyma of enlarged right lung is congested, dark purple, and exudes large amounts of blood and frothy fluid



Parenchyma of smaller left lung is crepitant, light tan-pink, and exudes minimal amount of blood and frothy fluid