

فسلجة الامراض النظري  
المرحلة الثالثة  
الفصل الاول



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٢٠١٨ - ٢٠١٩

# Disorders of The Cardiovascular System

Lec (4 + 5)

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# 1- thrombosis:

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- ▶ Formation of a solid or semi-solid mass from the constituents of the blood within the vascular system during life
- ▶ **Causes of thrombosis:**
  - ▶ Endothelial injury
  - ▶ Changes in blood flow
  - ▶ Changes in the composition of blood
- ▶ **Appearances and composition of thrombi:**
- ▶ **Types of thrombosis:**
  - ▶ Venous thrombosis
  - ▶ Arterial thrombosis
  - ▶ Cardiac thrombosis



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▶ **Fate of the thrombi:**

- ▶ Propagation
- ▶ Embolism
- ▶ Lysis and removal
- ▶ Organization & recanalization

▶ **Embolism:**

- ▶ Is a detached intravascular solid, liquid or gaseous mass that is carried by the blood to a site distant from its point of origin
- ▶ Types of embolism:
  - Pulmonary thromboembolism
  - Systemic thromboembolism
  - Fat embolism
  - Air embolism
  - Amniotic fluid embolism



## 2- infarction:

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- ▶ Area of ischemic necrosis caused by occlusion of either the arterial supply or venous drainage in a particular tissue
- ▶ **Causes if infarction:**
  - ▶ Thrombotic or embolic occlusion
  - ▶ Local vasospasm
  - ▶ Extrinsic compression of a vessel
  - ▶ Swelling of atheroma
  - ▶ Twisting of vessel
- ▶ **Morphological changes of the infarcted area:**
- ▶ **Factors influencing the development of an infarct:**



## 3- shock:

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- ▶ Acute circulatory failure or cardiovascular collapse. It is the end result of number of potentially lethal clinical events.
- ▶ **Types of shock:**
  - ▶ Cardiogenic shock
  - ▶ Hypovolemic shock
  - ▶ Septic shock
  - ▶ Neurogenic shock
  - ▶ Anaphylactic shock
- ▶ **Pathogenesis of septic shock:**



# 4- hyperemia & congestion:

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- ▶ Definition
- ▶ Physiological and pathological of congestion
- ▶ Causes of congestion
- ▶ Edema:
  - ▶ Is increased fluids in the interstitial spaces.
  - ▶ Causes of edema:
    - ▶ Increase hydrostatic pressure
    - ▶ Lymphatic obstruction
    - ▶ Sodium and water retention
  - ▶ Types of edema fluid:
  - ▶ Types of edema:
  - ▶ Causes of edema:



## 5- myocardium infarction (MI):

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- ▶ It indicates development of defined area of myocardial necrosis caused by local ischemia.
- ▶ Pathogenesis of MI:
- ▶ **Other CVS disorders:**
  - ▶ Rheumatic heart disease
  - ▶ Heart failure (HF)
  - ▶ Varicose veins
  - ▶ Aneurysms
  - ▶ Coronary heart disease (CHD)
  - ▶ Hypertension & Hypotension

