

# Endocarditis

## Pathology Team

These are the companion notes  
for the HANDOUTS given by Dr. Sufia Hussain  
You can study from: Them + The Pathology Handouts

N.B. The” 📖 “means it is an important MCQ

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## Infective Endocarditis

Acute → Very Toxic (virulent) → Causes More Damage

Anti-bacterials are given after dental surgeries – WHY?? to prevent infection (will be more predisposed to it)



What is the most common organism which causes “Infective Endocarditis”??

- Previously Damaged Valves (or abnormal ones) → *Streptococcus viridans*
- Healthy or deformed valves (commonlu in IV drug abusers) → *Coagulase-negative staphylococci (S.aures)*  
((you need to study microbiology so you'd know the really causative ones))

The Most Common Site: in Aortic & Mitral Valves

Vegetation in left Valves → infection goes to systemic circulation

Vegetation in Right Valves → infection goes to pulmonary circulation

By microscopic (in acute infection) we see :

Neutrophils + Macrophages

**Endocarditis:** inflammation in the endocardium layer

**Bacteremia:** there are bacteria in blood stream

**Virulemia:** if it is caused by a virus

**Prosthetic:** superficial (changed the original one)

**OCCULT:** we can't identify it (difficult)

**Petechiae:** small drop in the skin

**Non- Bacterial (maratic)** → here we don't see neutrophils (REMEMBER neutrophils come only with acute inflammation)

Instead we see: Fibrin + Platelets + blood components on the leaflet of the cardiac valves



Commonly encountered in debilitated (weakened) patients – hypercoagulative state



Libman-Sacks endocarditis – is associated with SLE (Systemic Lupus Erythematosus)

(mitral and tricuspid valvulitis with small sterile vegetations)

Children with congenital <3 disease (damaged heart) – are more exposed to bacterial (infective) endocarditis

Healing → Fibrosis (Fibrosis tissue formation → shrinkage or the tissue)

## Pericarditis:



**Common Cause:** Viral infections

When it comes alone (Primary) → it is mostly viral or due to other organisms

OR it may come secondary to → Acute MI , cardiac surgery, radiation of the mediastinum



All of the following cause pericarditis except (type of an MCQ)

**Associated systemic disorders:** disorders in other systems associated with “pericarditis” → mainly uremia (blood in urine)  
Fibrinopurulent → yellowish (pus-like) [Pus= yellow]



#### Mentioned in the Revision

- ❖ Which side of the heart is involved (infective) (right or left)
- ❖ People more predisposed to it
- ❖ Difference between acute and subacute (and who are the people more prone to each)
- ❖ Need to know about
  - marantic endocarditis → is with cancer
  - Ligman-sacks endocarditis (associated with SLE)
- ❖ Primary pericarditis- common with viral
- Secondary bacteria
- ❖ Hemopericardium due to pericarditis and MI

IF you had any inquiry about any point in any of those notes or even the previous ones, feel free to contact me on my e-mail “ [donabaraka@yahoo.com](mailto:donabaraka@yahoo.com) “ and I will be more than glad to help you

Thank yous for everyone who helped

Good Luck all....

Dona Barakah