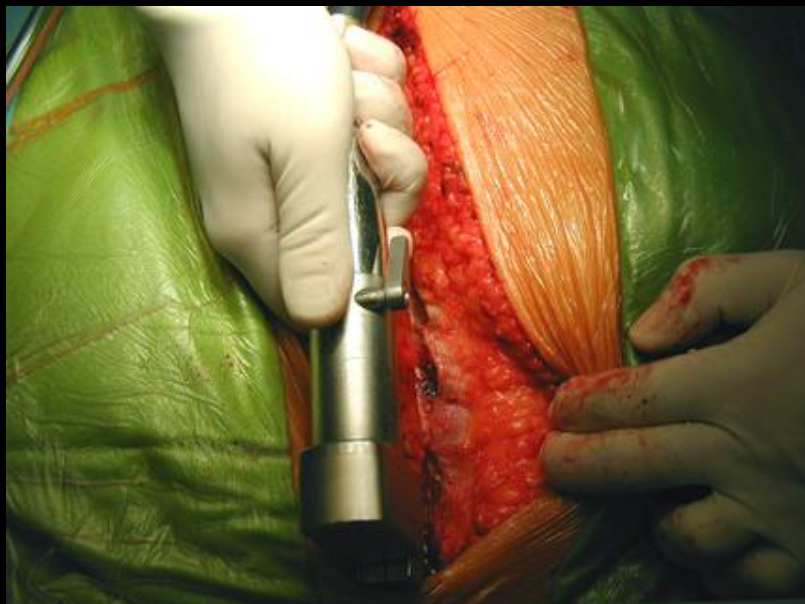
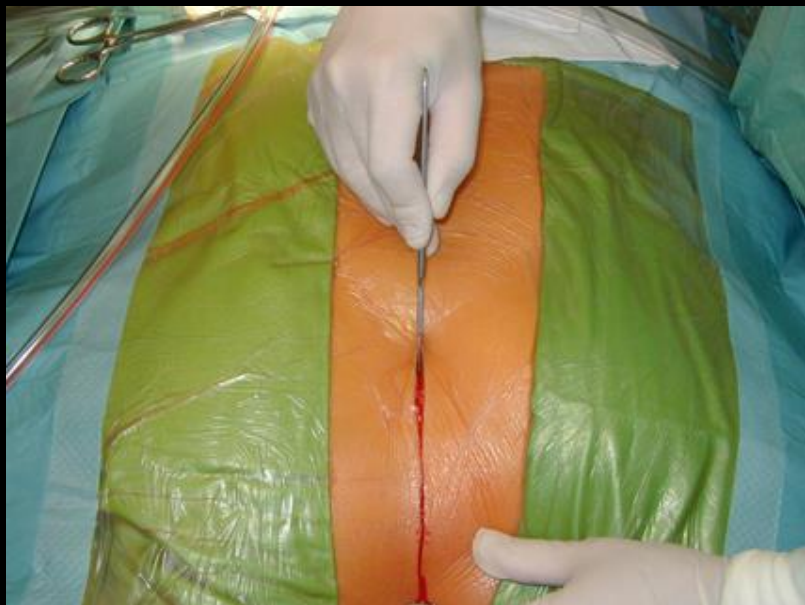


# Oberflächen, Binnenräume und Wandbau des Herzens. Herzskelett, Myokard, Herzklappen.

**Dr. Tamás Ruttkay**

**Anatomisches, Histologisches und  
Embryologisches Institut  
2019.**





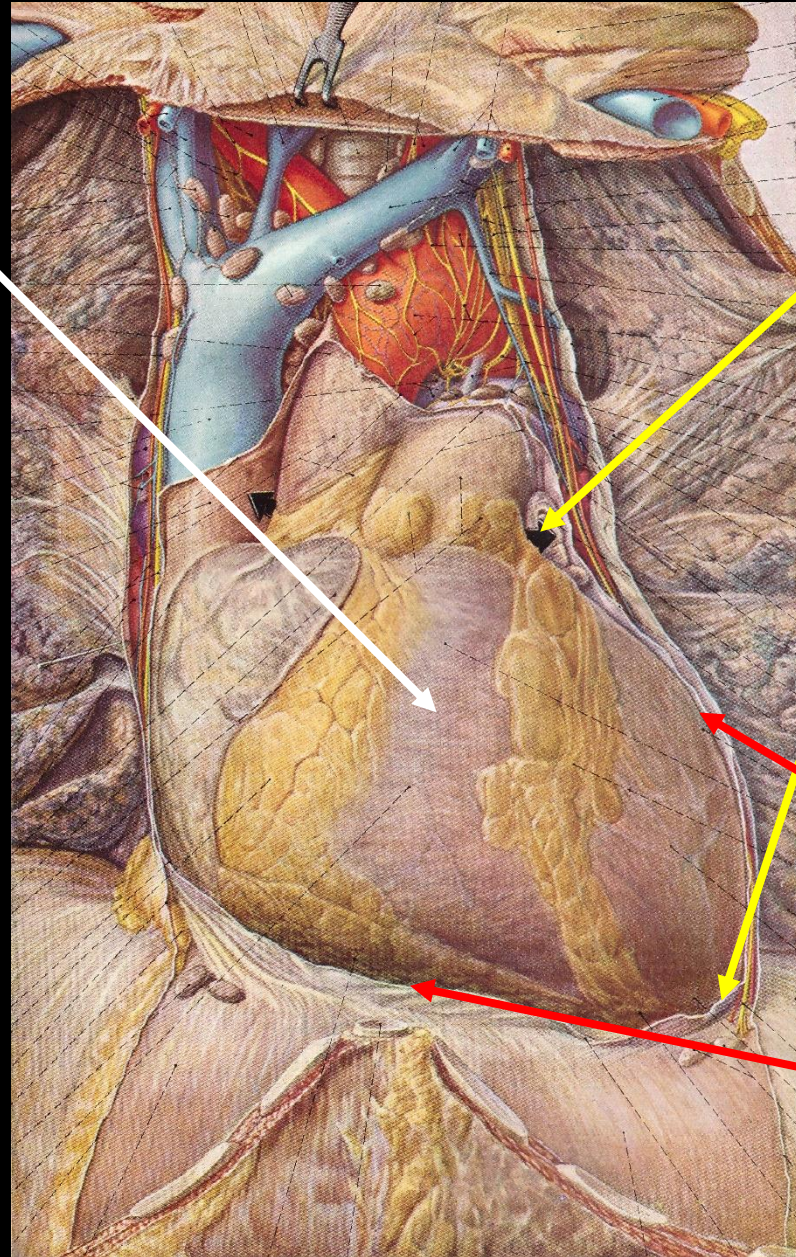
# Oberflächen des Herzens

**Facies sternocostalis:**  
→ Brustbein und Rippen

**Facies diaphragmatica:**  
→ Zwerchfell

**Facies posterior /  
mediastinalis:**  
→ Mediastinum posterius

**Facies pulmonalis:**  
→ Lunge



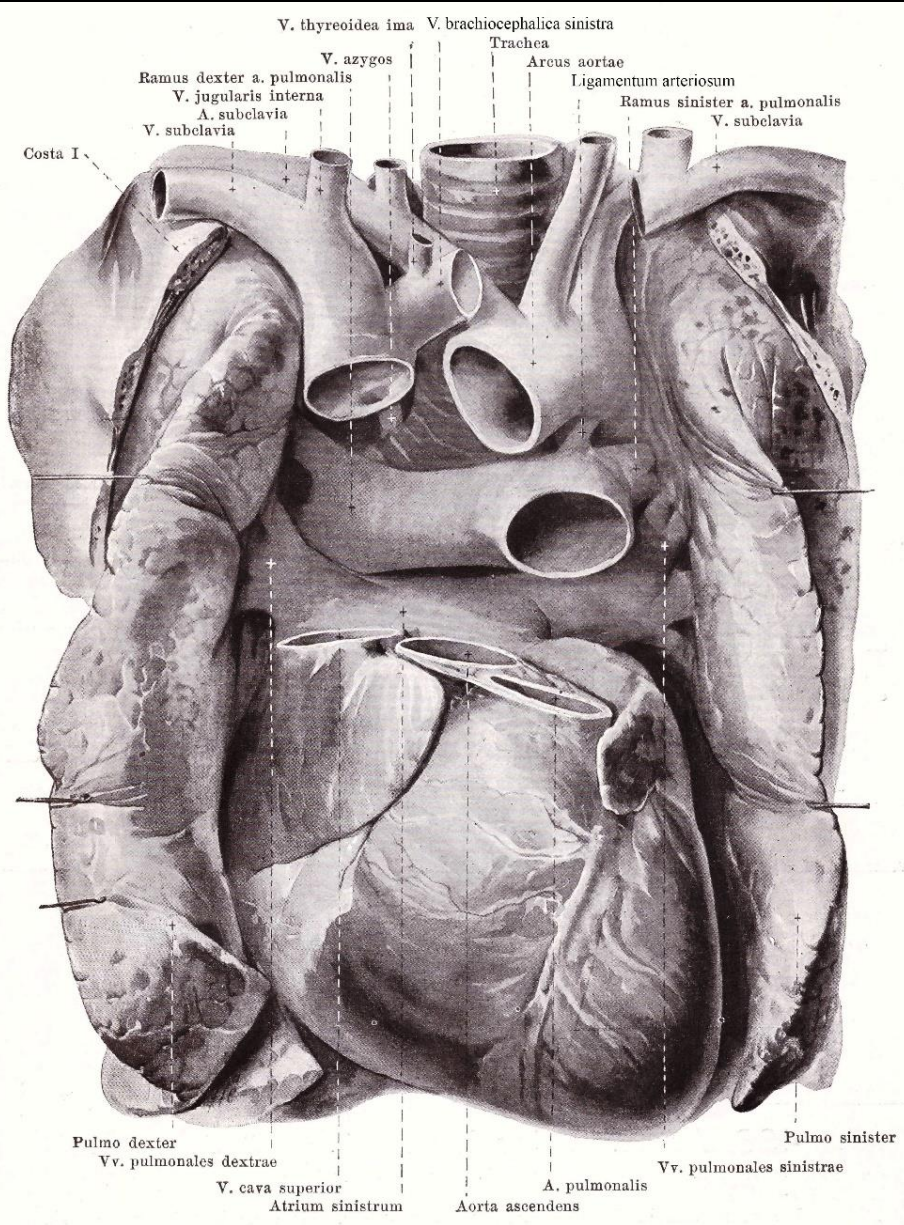
**Basis cordis**

**Apex cordis**

**Margo obtusus / sinister:**  
→ „stumpfer“ Übergang

**Margo acutus / dexter:**  
→ „scharfer“ Übergang

# Vasa publica



## rechtes Herz:

Vena cava superior  
Vena cava inferior

↓  
rechter Vorhof

↓  
rechter Kammer

↓  
Truncus pulmonalis

↓  
Arteria pulmonalis  
- dextra  
- sinistra

## linkes Herz:

Venae pulmonales  
- dextrae  
- sinistrae

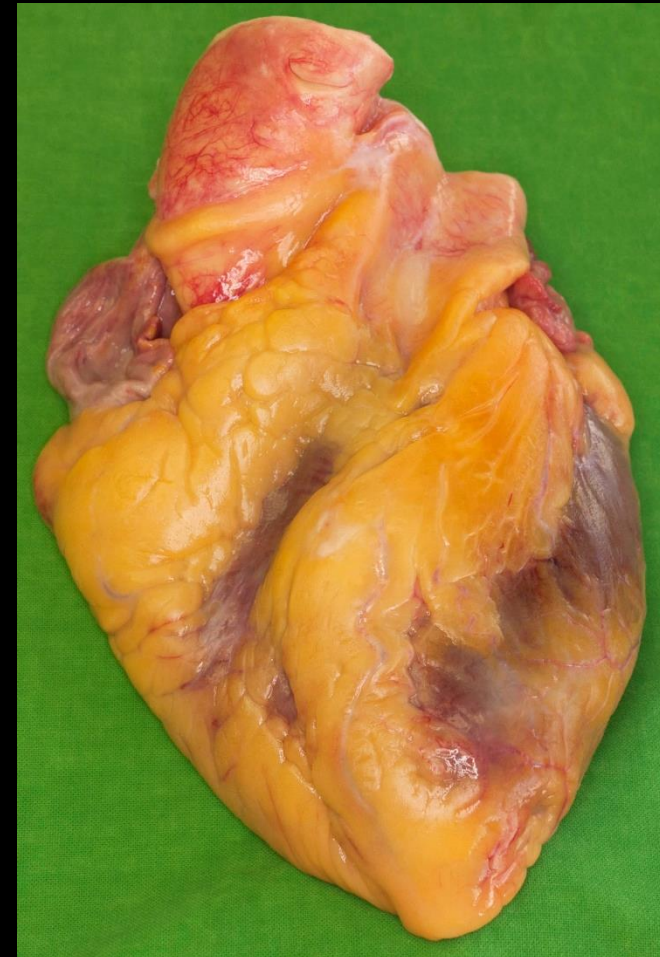
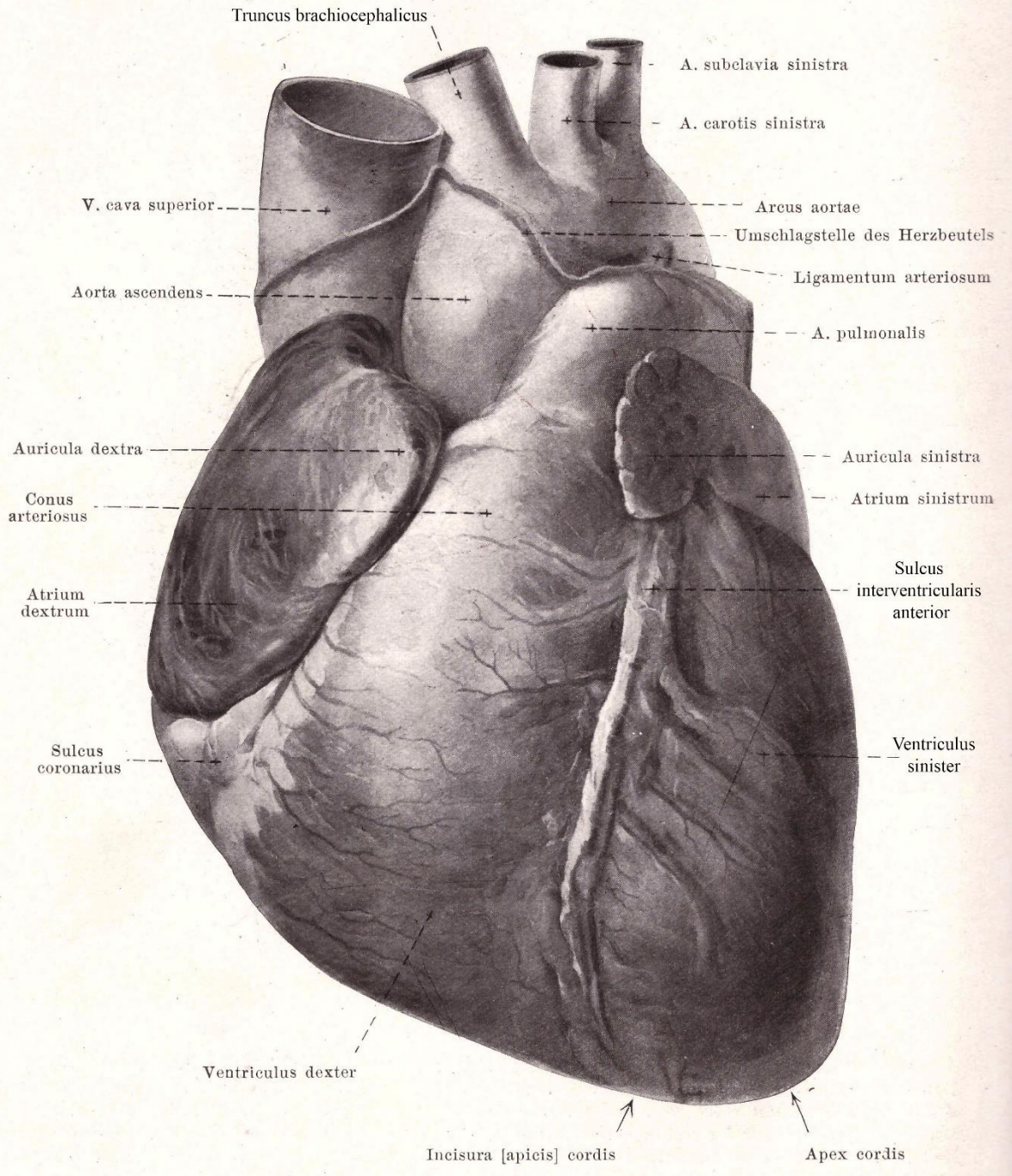
↓  
linker Vorhof

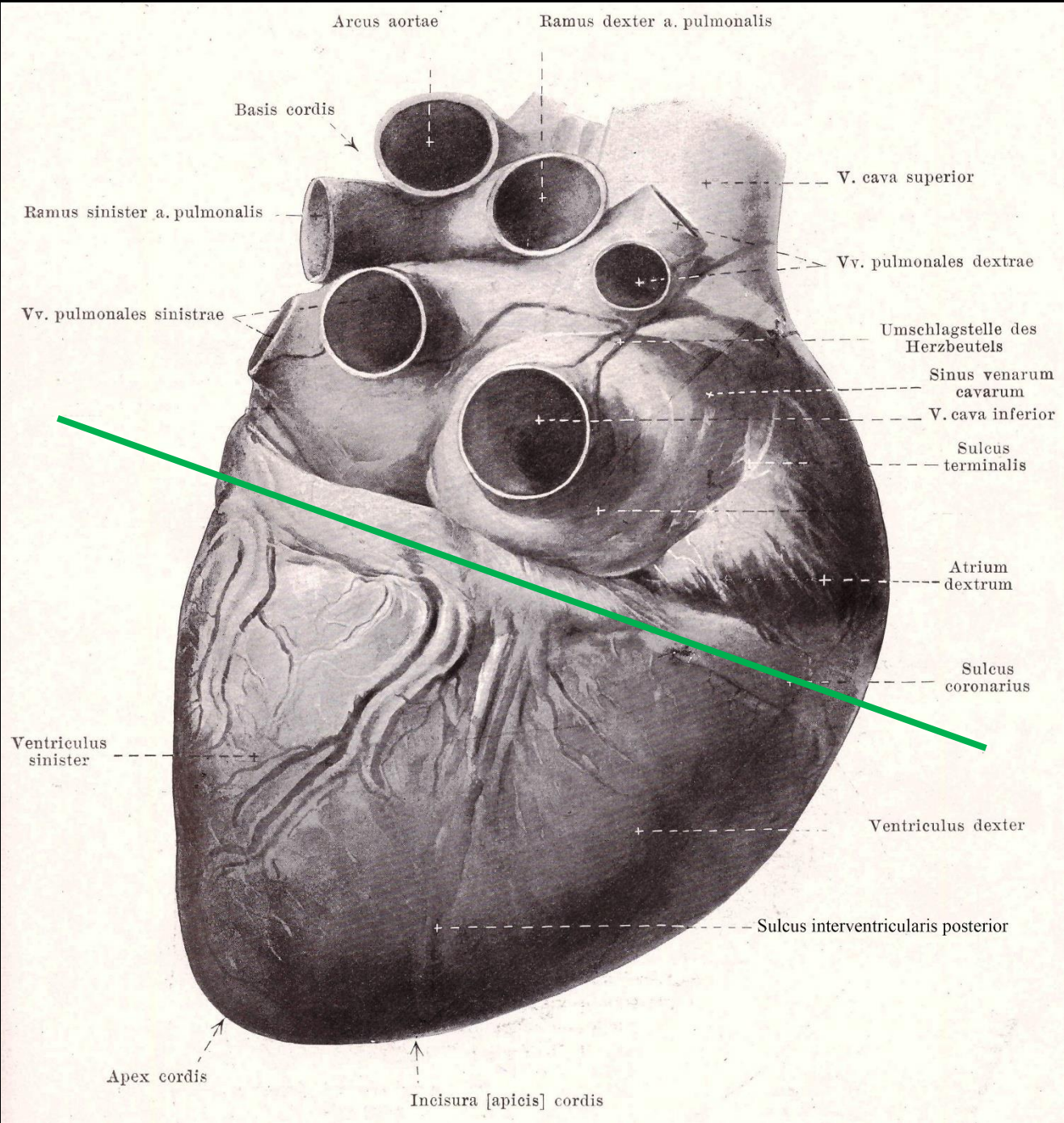
↓  
linker Kammer

↓  
Aorta ascendens

↓  
Arcus aortae  
- Truncus  
brachio-  
cephalicus  
- A. carotis  
comm. sin.  
- A. subclavia  
sin.

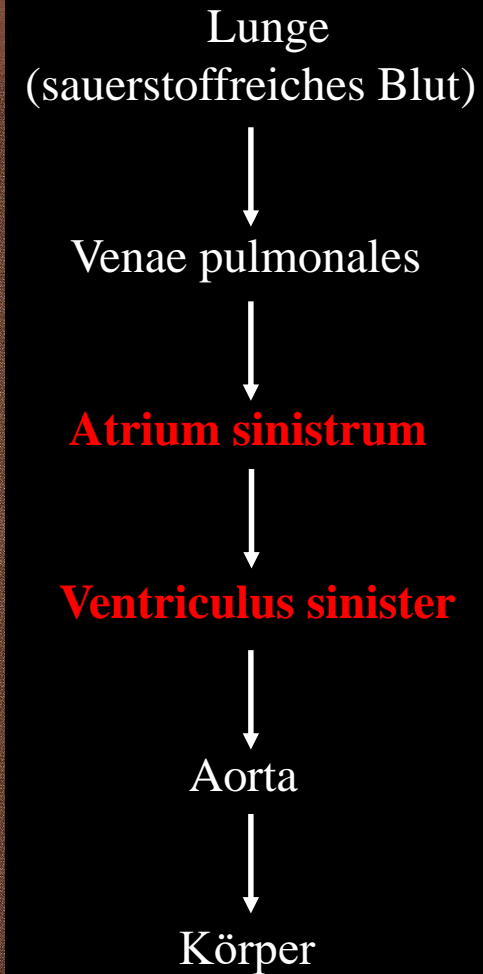
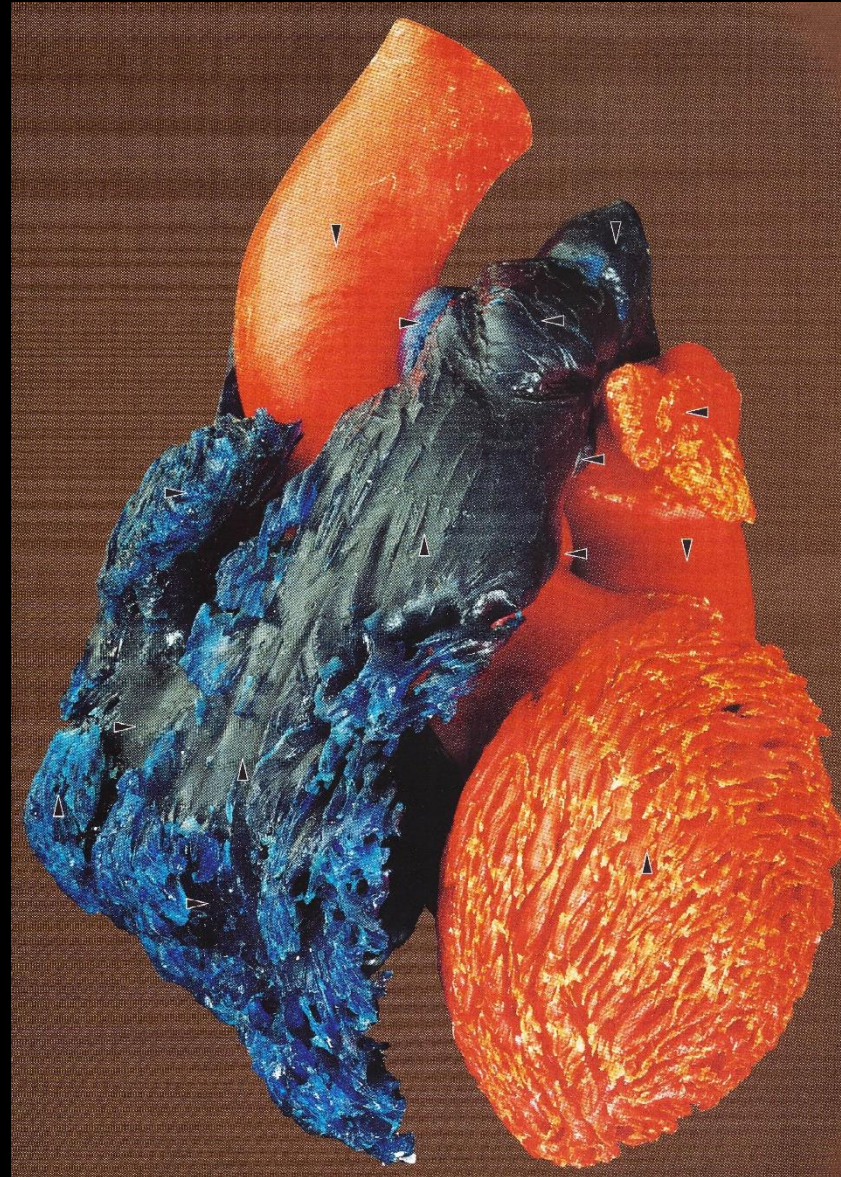
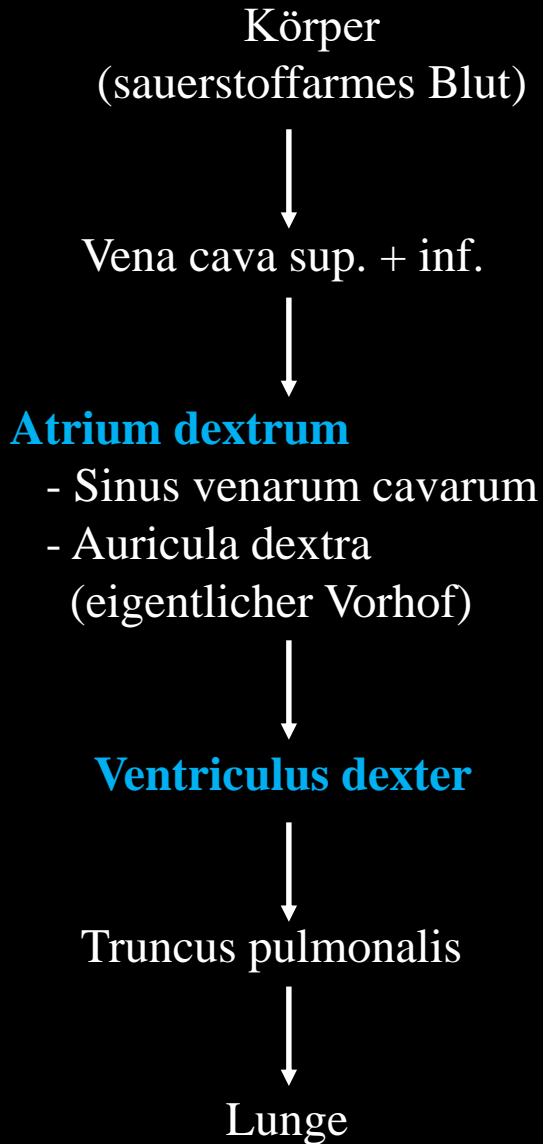
# Facies sternocostalis





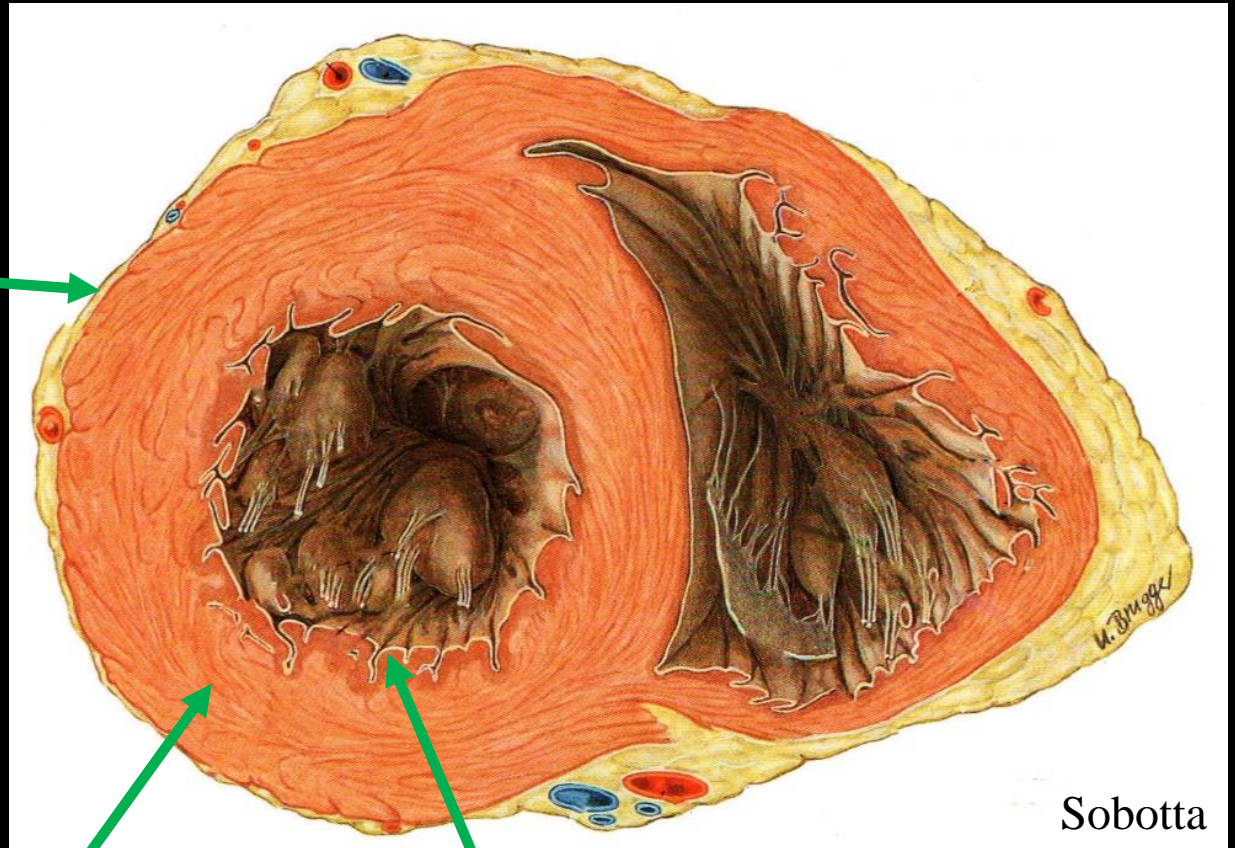
**Facies  
mediastinalis  
+  
diaphragmatica**

# Binnenräume des Herzens



# Wandbau des Herzens

**Epikard**  
(*Pericardium  
viscerale*)



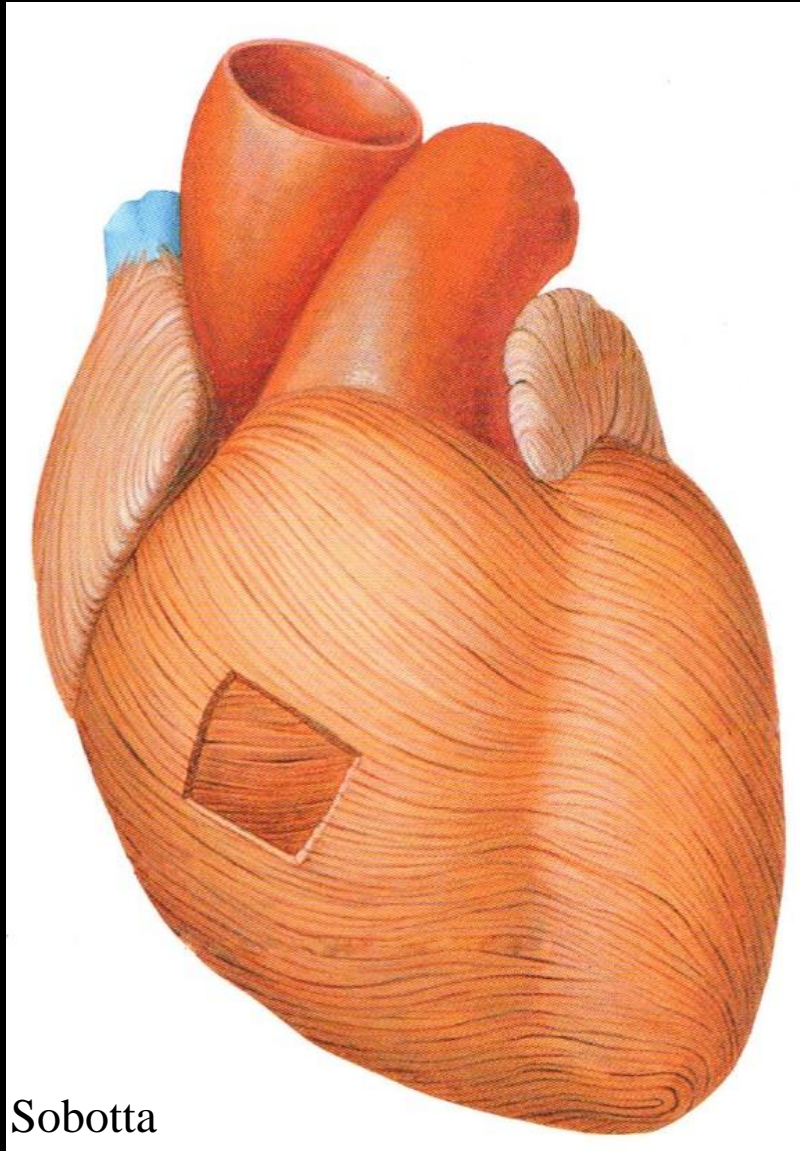
Sobotta

**Myokard**

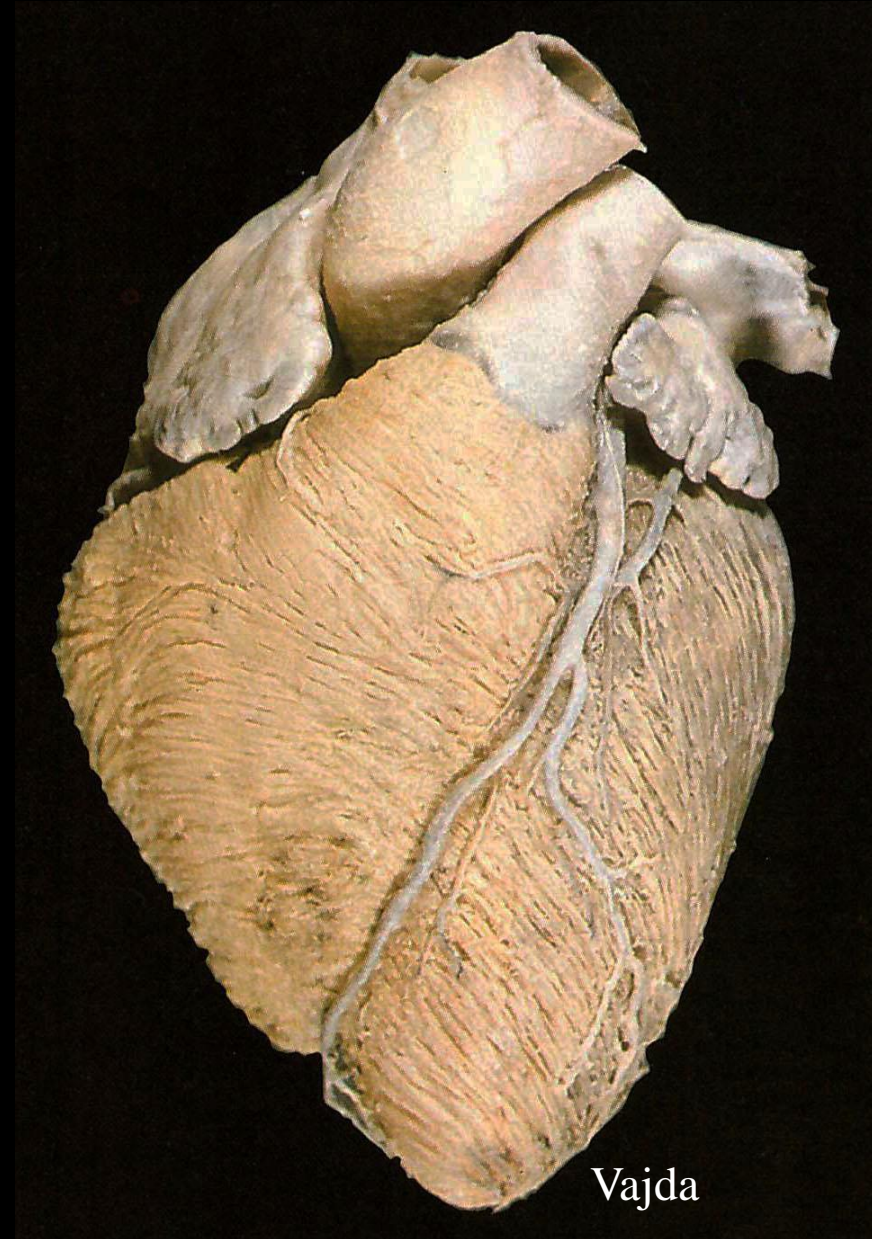
**Endokard**



# Myokard

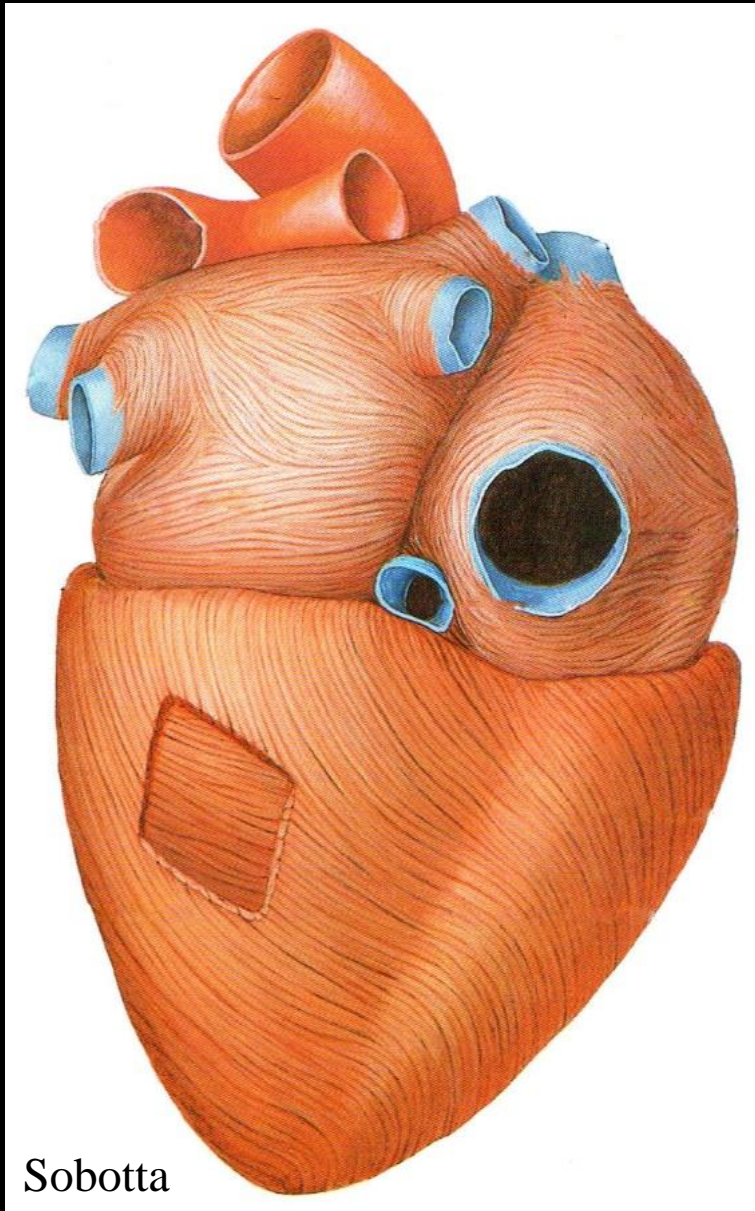


Sobotta

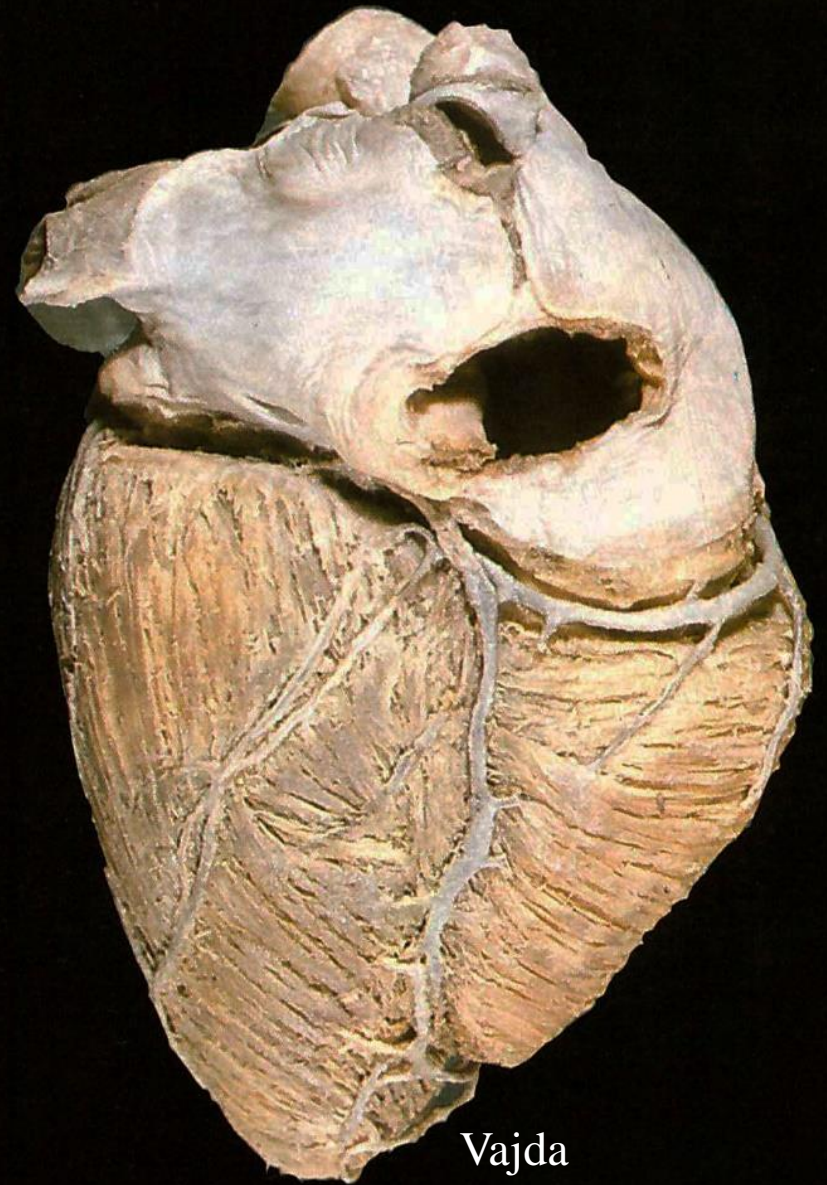


Vajda

# Myokard

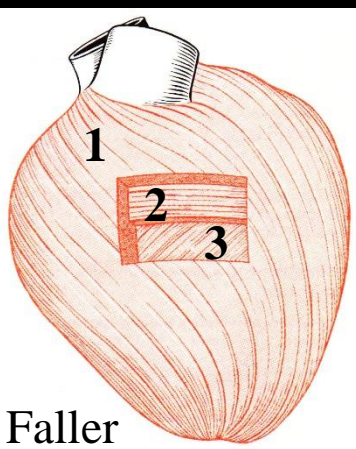


Sobotta

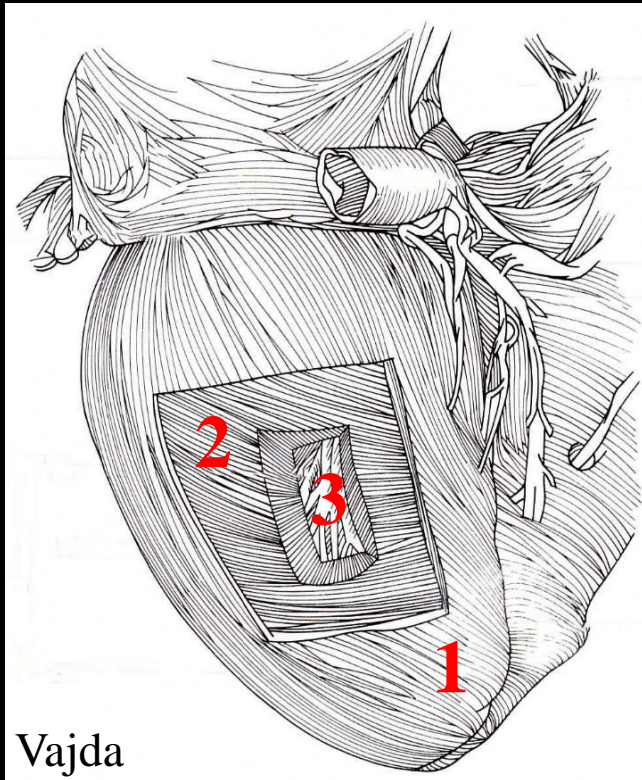


Vajda

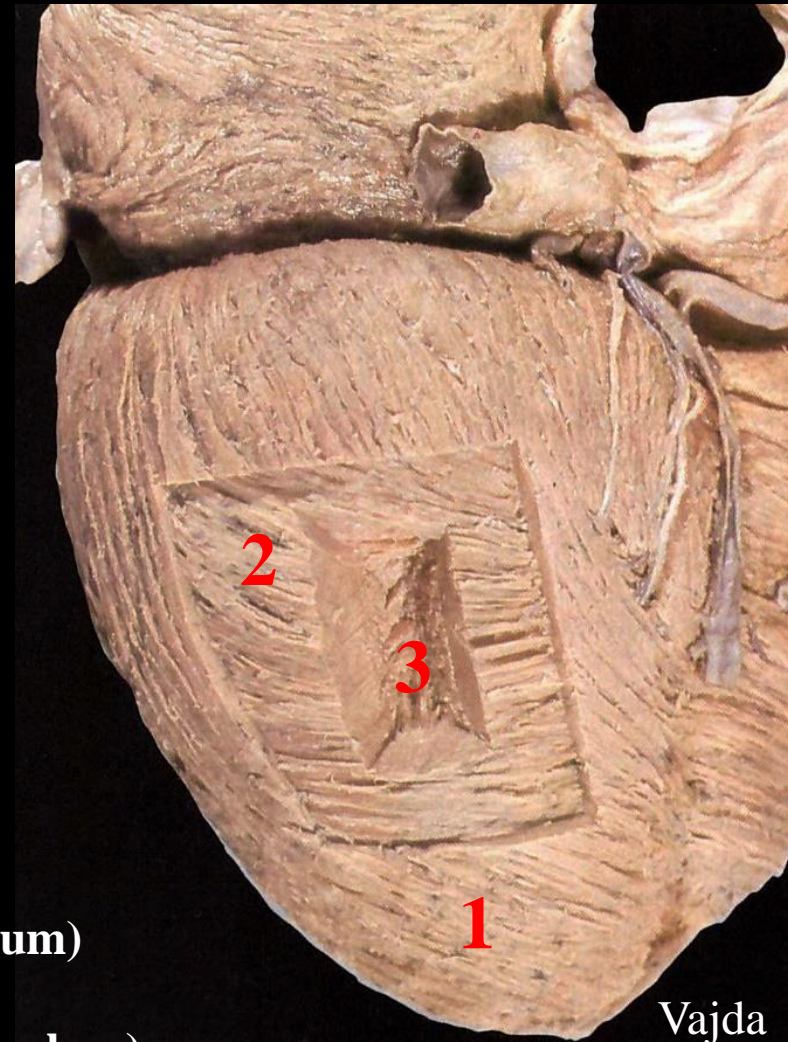
# Myokard der Ventrikel



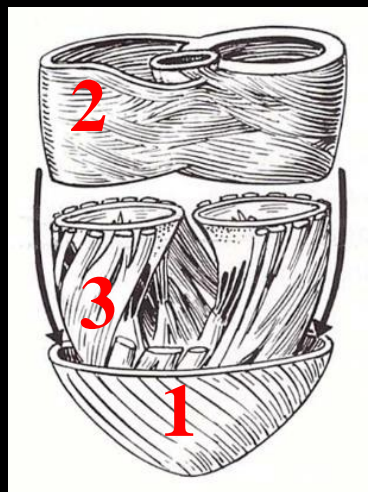
Faller



Vajda



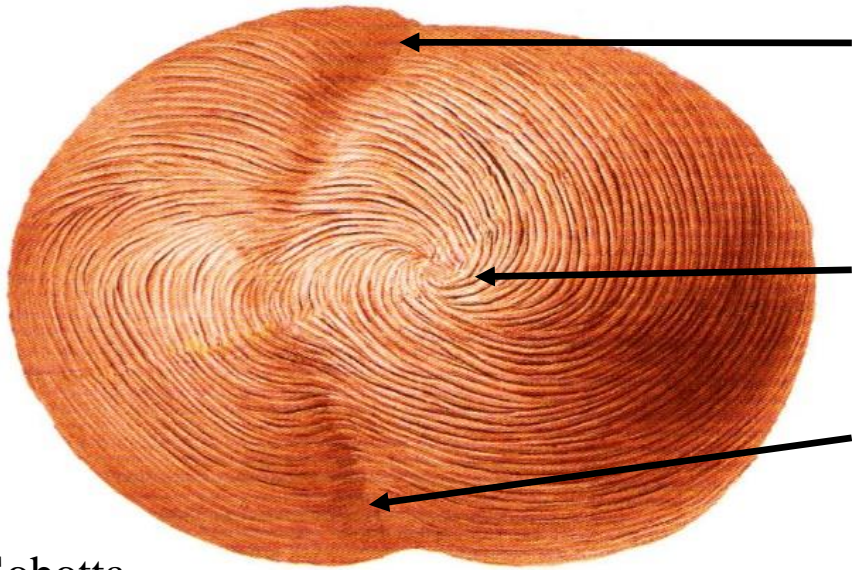
Vajda



Szentágothai

1. Äußere, schräge, spirale Schicht (Stratum externum)
2. Mittlere, kreisende Schicht (Stratum medium/circulare)
3. Innere, longitudinale Schicht (Stratum internum)

# Myokard



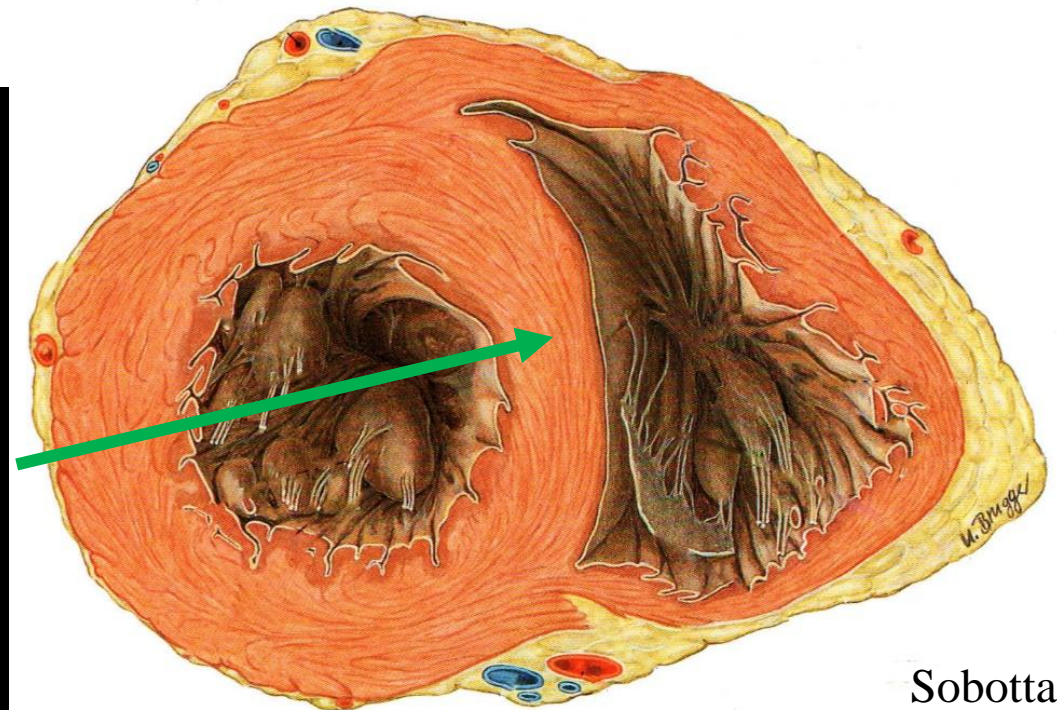
Sulcus interventricularis anterior

Vortex cordis

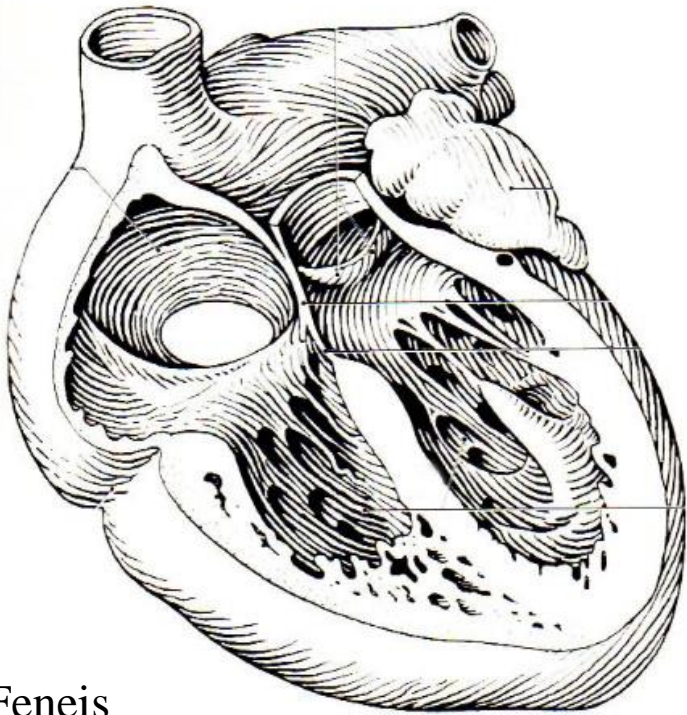
Sulcus interventricularis posterior

Sobotta

Septum interventriculare

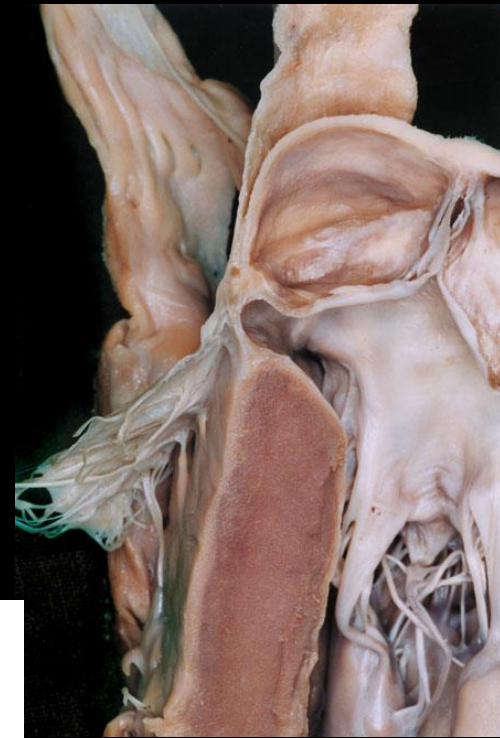


Sobotta



Feneis

# Septum interventriculare



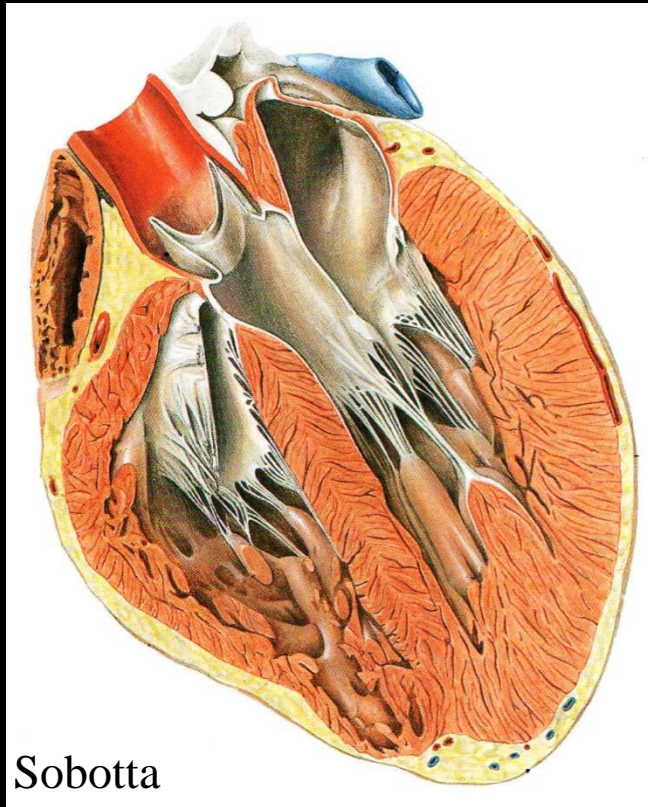
Berdajs

Septum atrioventriculare

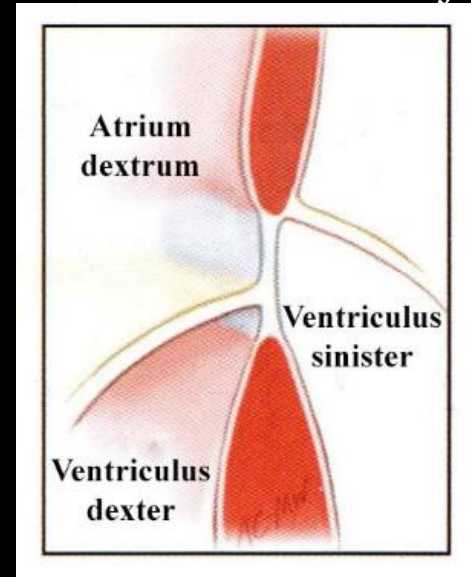
Septum interventriculare:

*Pars membranacea*

*Pars muscularis*

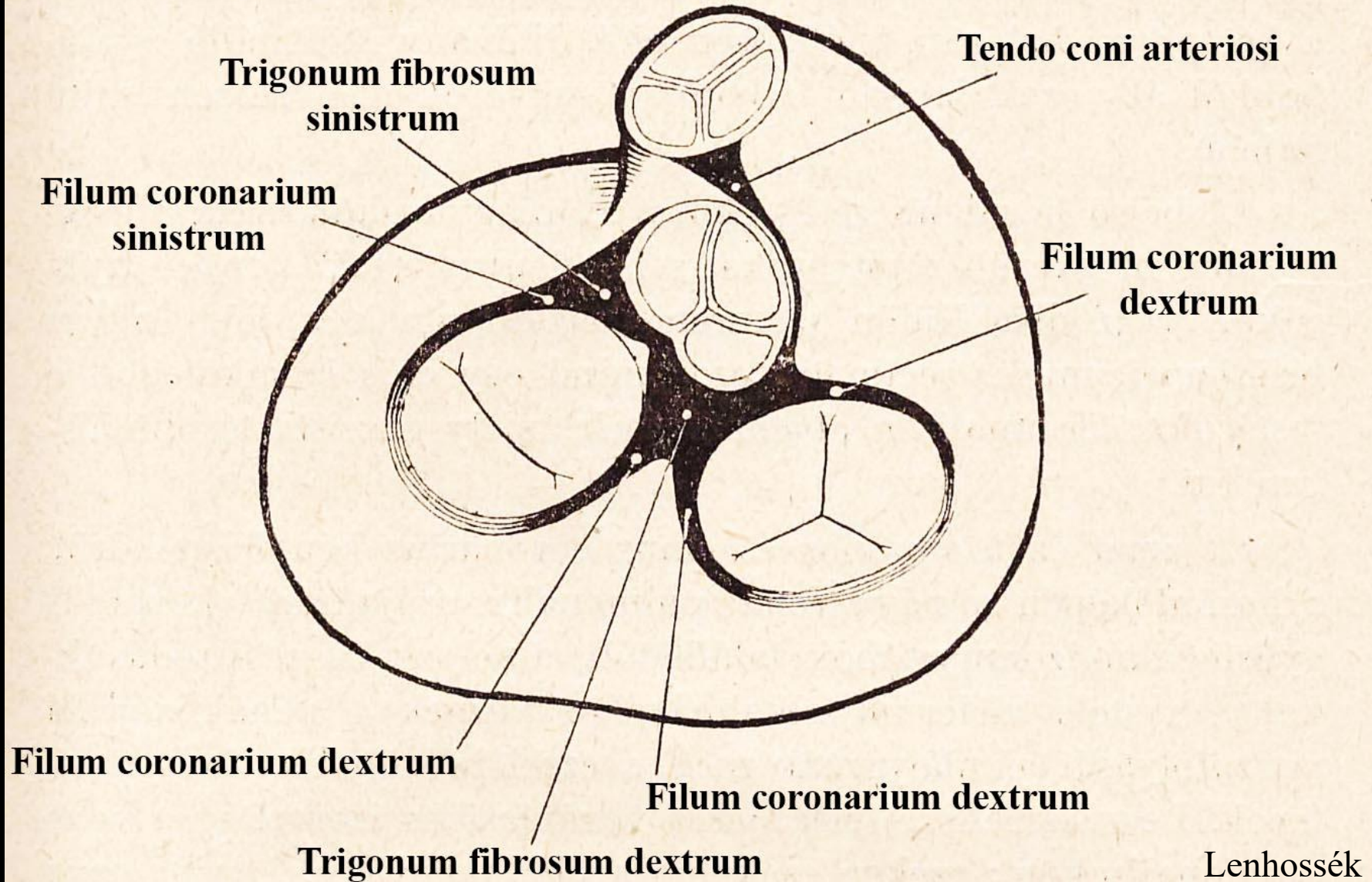


Sobotta



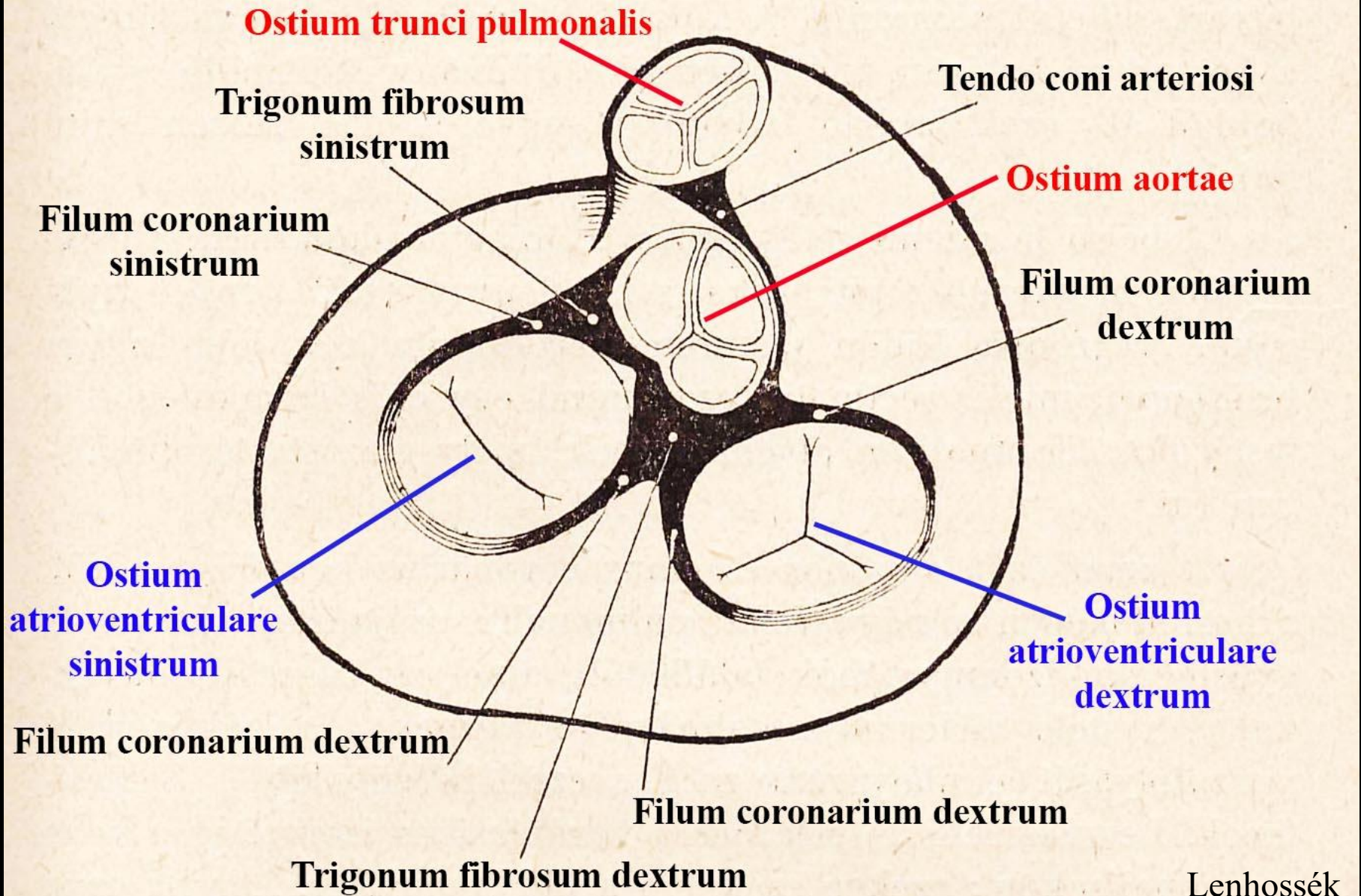
Carpentier

# Faserringe (Anuli fibrosi)



Lenhossék

# Faserringe (Anuli fibrosi)



# Herzklappen

## Segelklappen:

→ venöse Ostien

- Valva atrioventricularis dextra, Valva tricuspidalis
- Valva atrioventricularis sinistra, Valva bicuspidalis, Valva mitralis

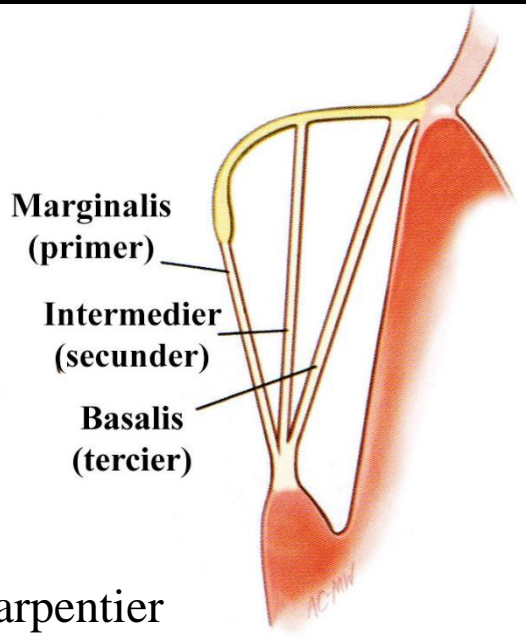
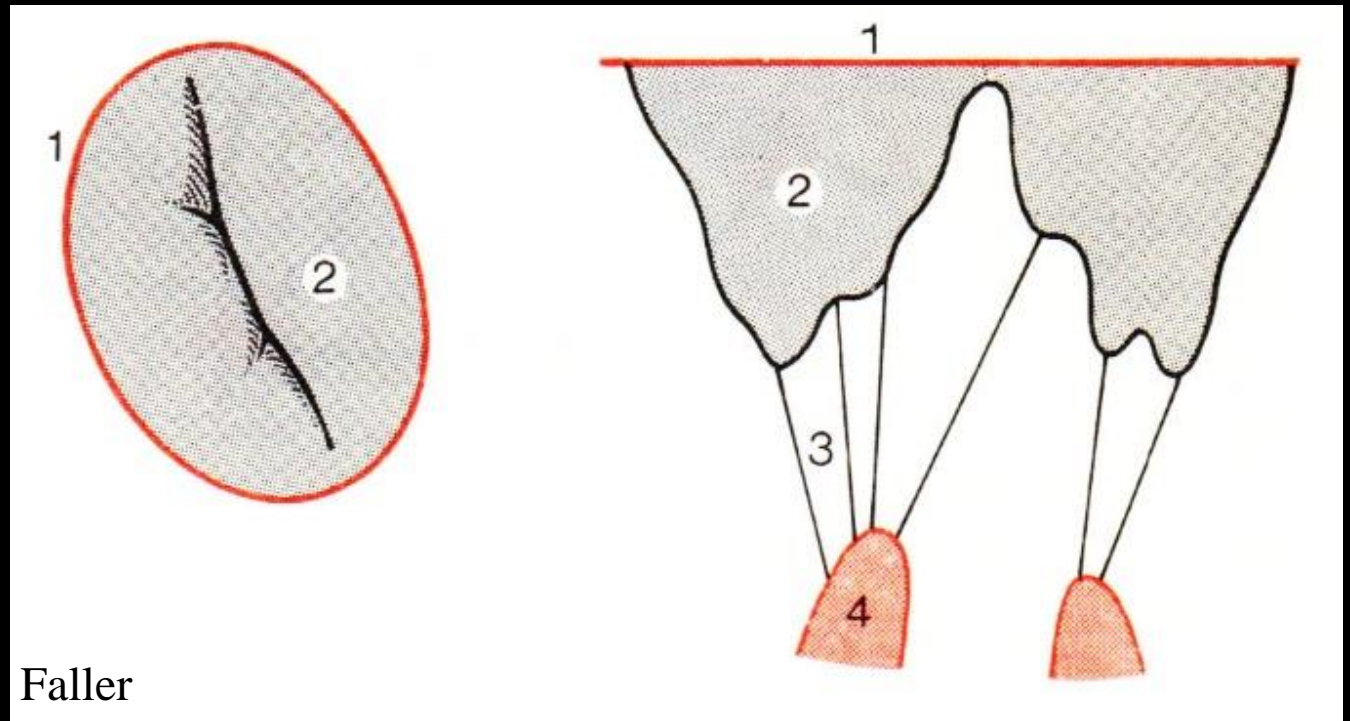
## Taschenklappen/Semilunarklappen:

→ arterielle Ostien

- Valva trunci pulmonalis
- Valva aortae

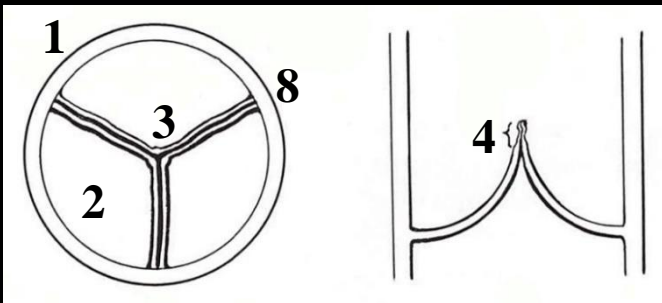
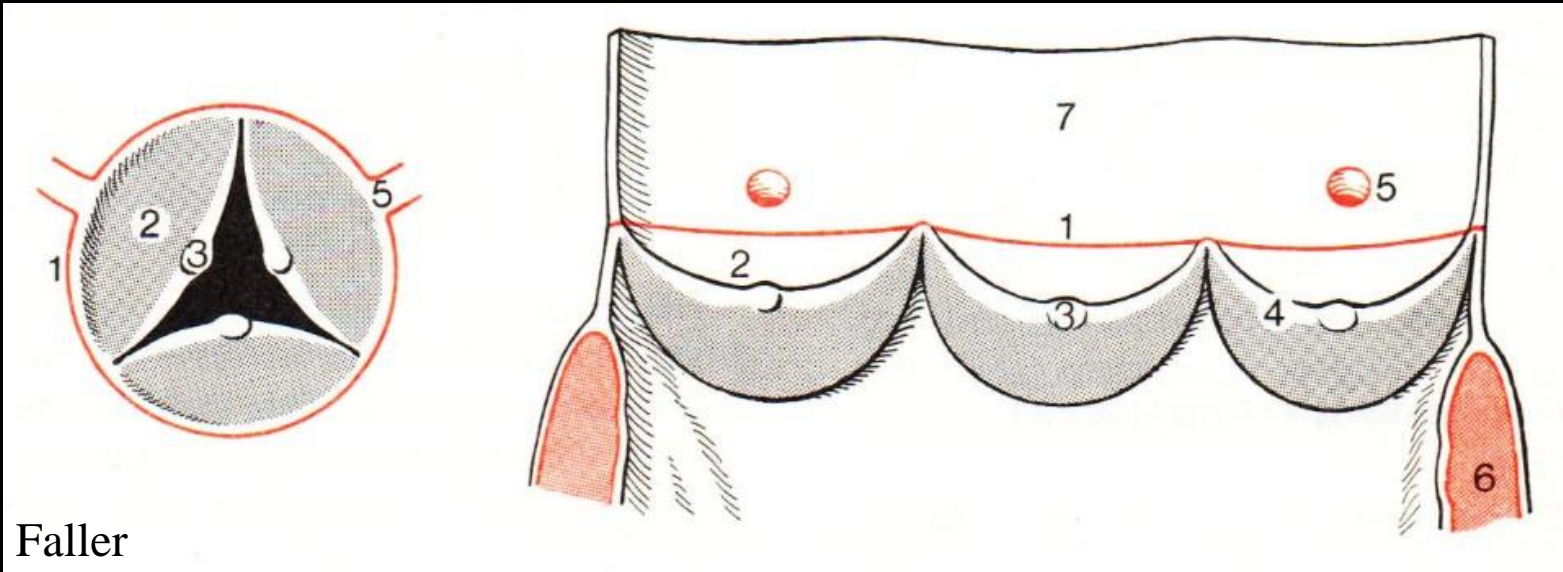


# Allgemeiner Aufbau der Segelklappen

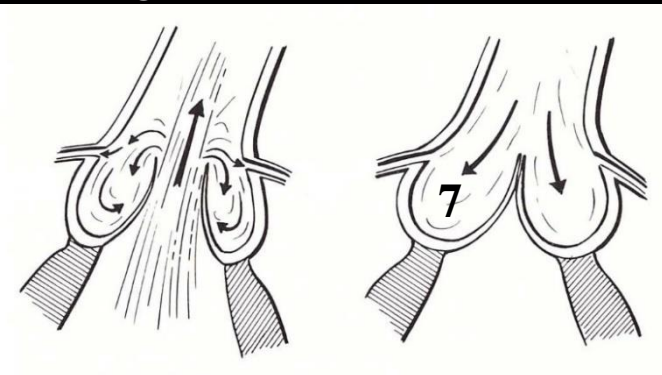


1. Anulus fibrosus (fibröser Ring)
2. Cuspis (Segel)
3. Chordae tendineae (Sehnenfäden)
4. Musculus papillaris (Papillarmuskel)

# Allgemeiner Aufbau der Taschenklappen

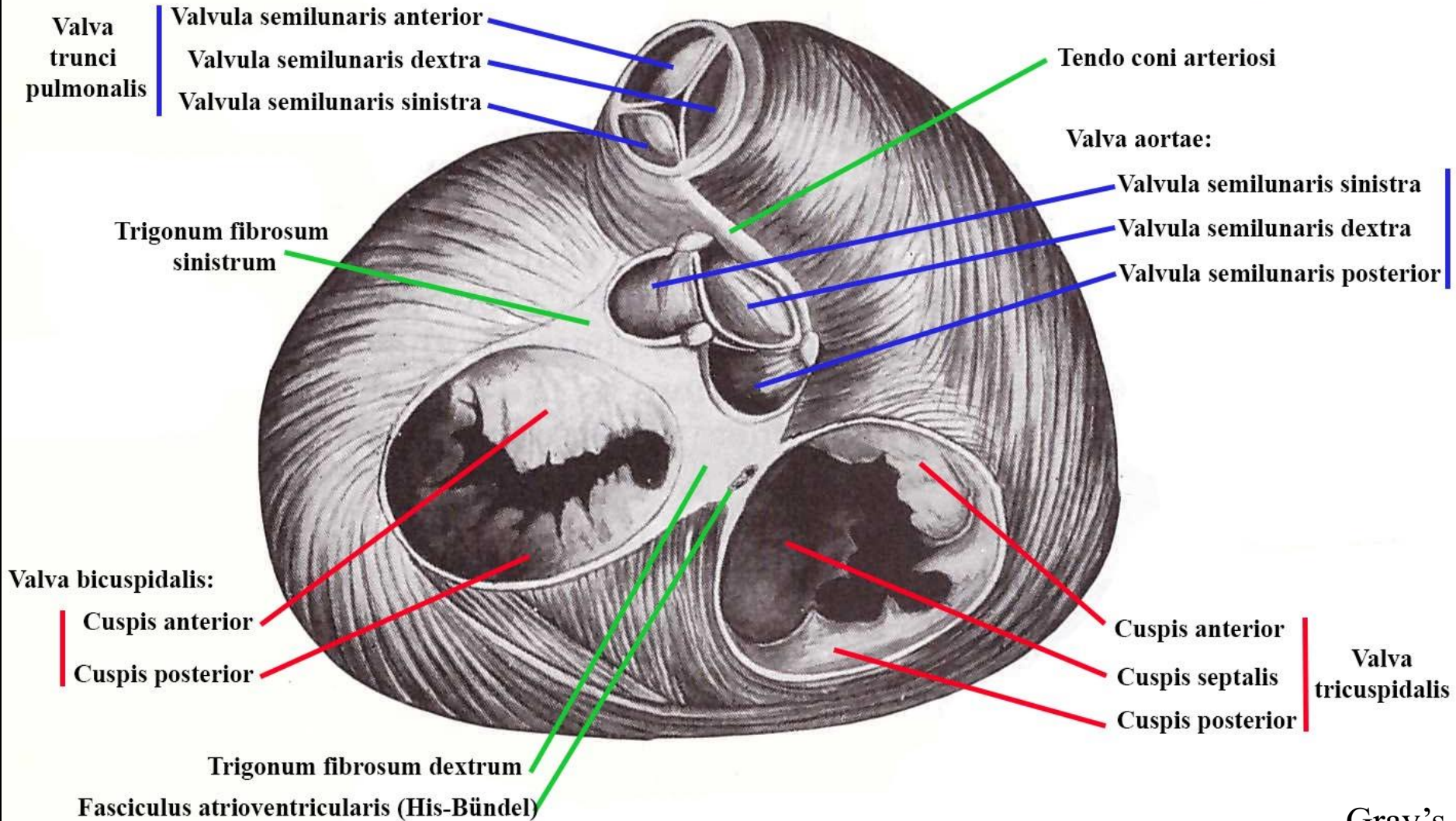


Szentágothai

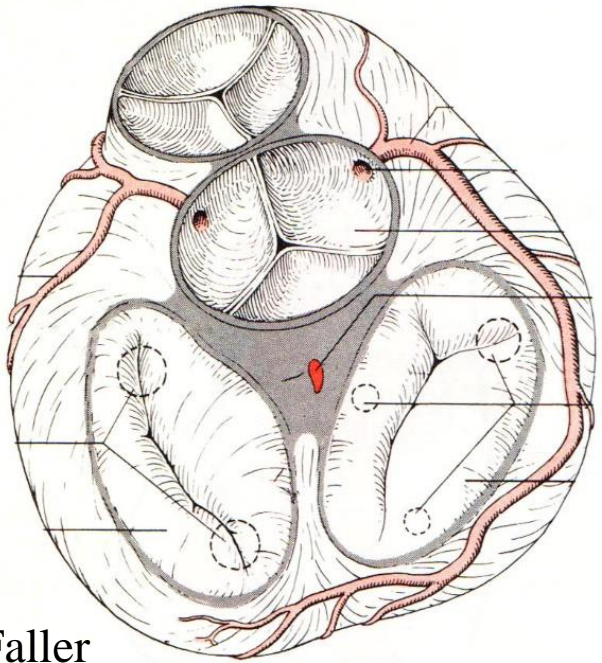


1. Anulus fibrosus
2. Valvula semilunaris: *Pars flaccida*  
*Pars tensa*
3. Nodulus valvulae semilunaris
4. Lunula valvulae semilunaris
5. Arteria coronaria
6. Ventrikelwand
7. Sinus aortae
8. Commissura valvulae semilunaris

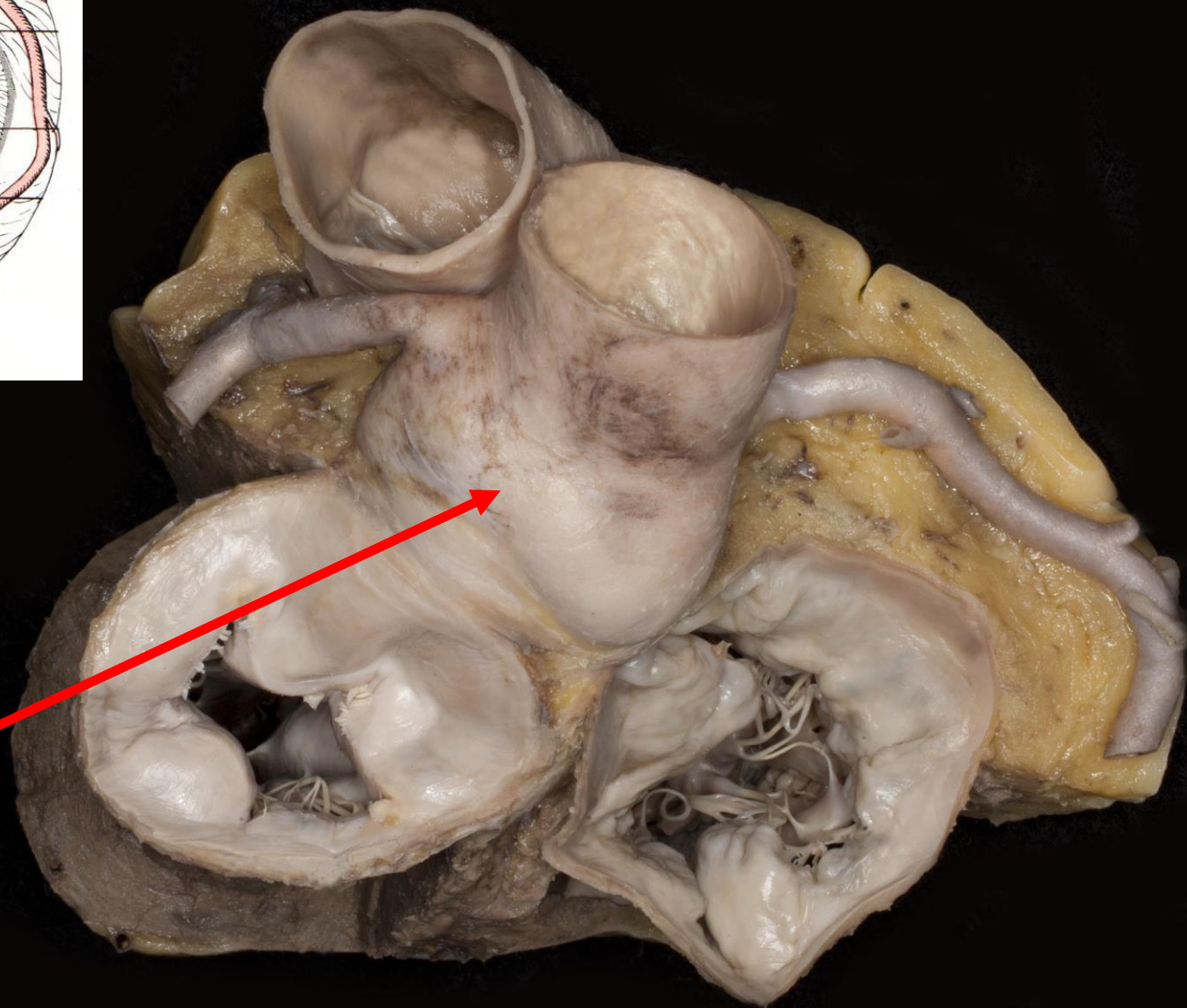
# Herzklappen



# Herzklappen



Faller



**Bulbus aortae**

# Valva aortae

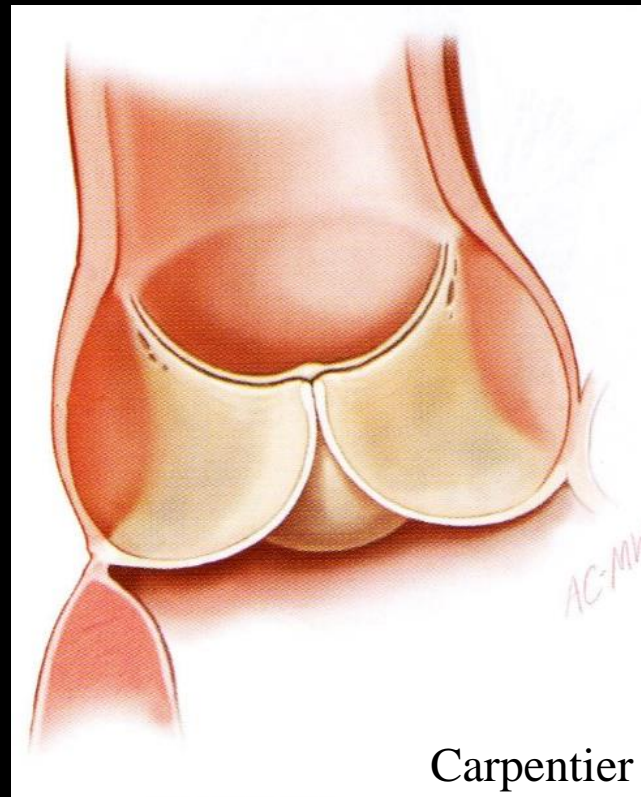
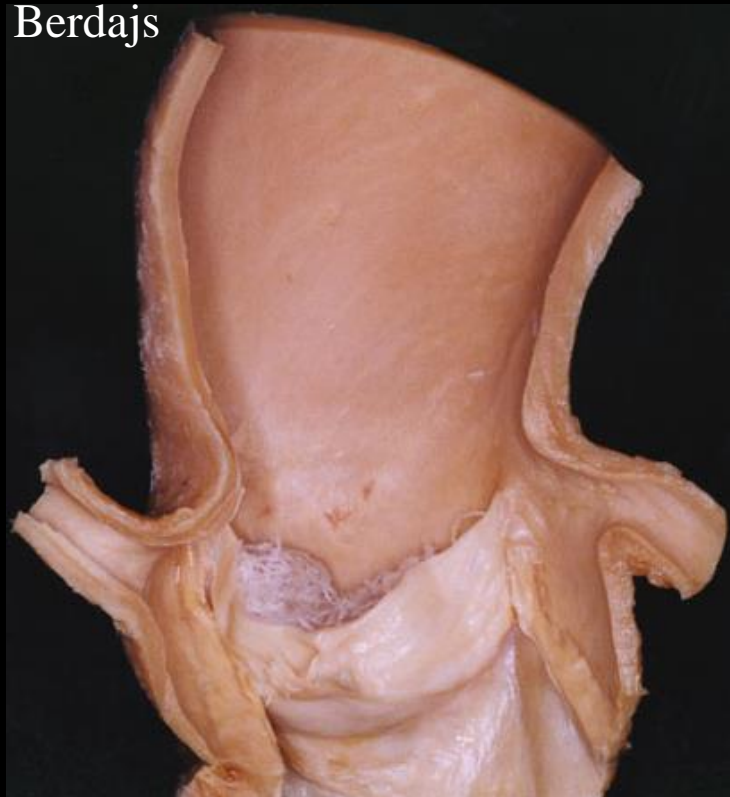


**Valvula semilunaris dextra**  
(*Valvula coronaria dextra*)

**Valvula semilunaris sinistra**  
(*Valvula coronaria sinistra*)

**Valvula semilunaris posterior**  
(*Valvula non coronaria*)

Berdajs

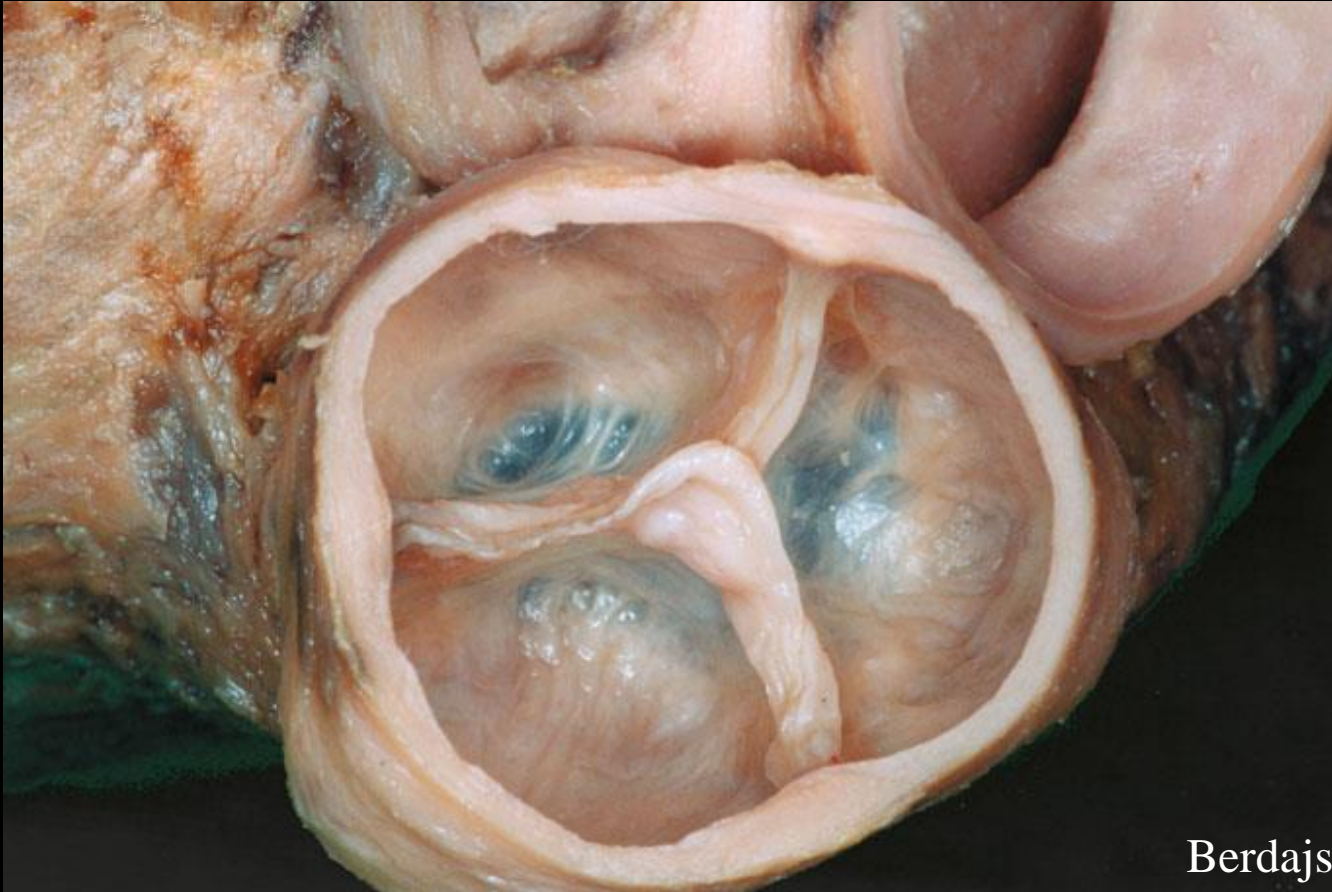


**Sinus aortae**  
(**Valsalva**)

**Bulbus**  
**aortae**

Carpentier

# Valva trunci pulmonalis



Berdajs

**Valvula semilunaris dextra**

**Valvula semilunaris sinistra**

**Valvula semilunaris anterior**

# Valva mitralis

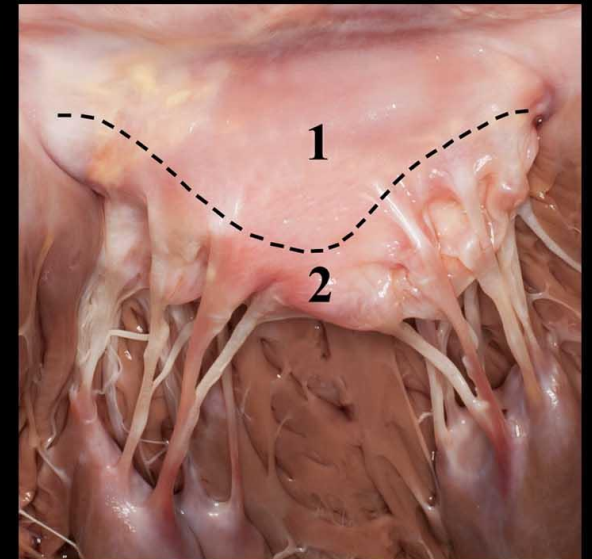
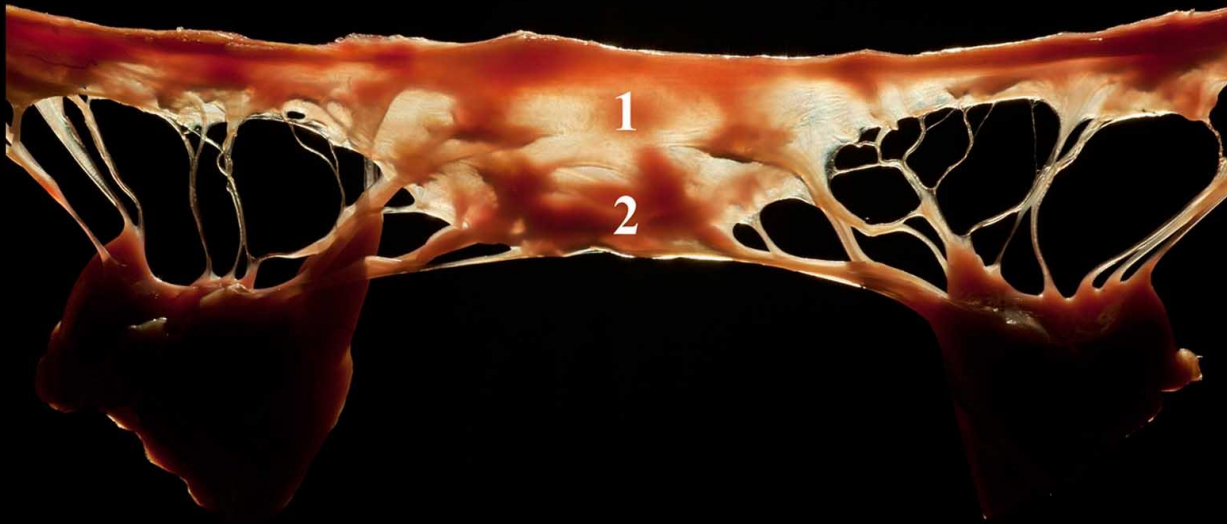
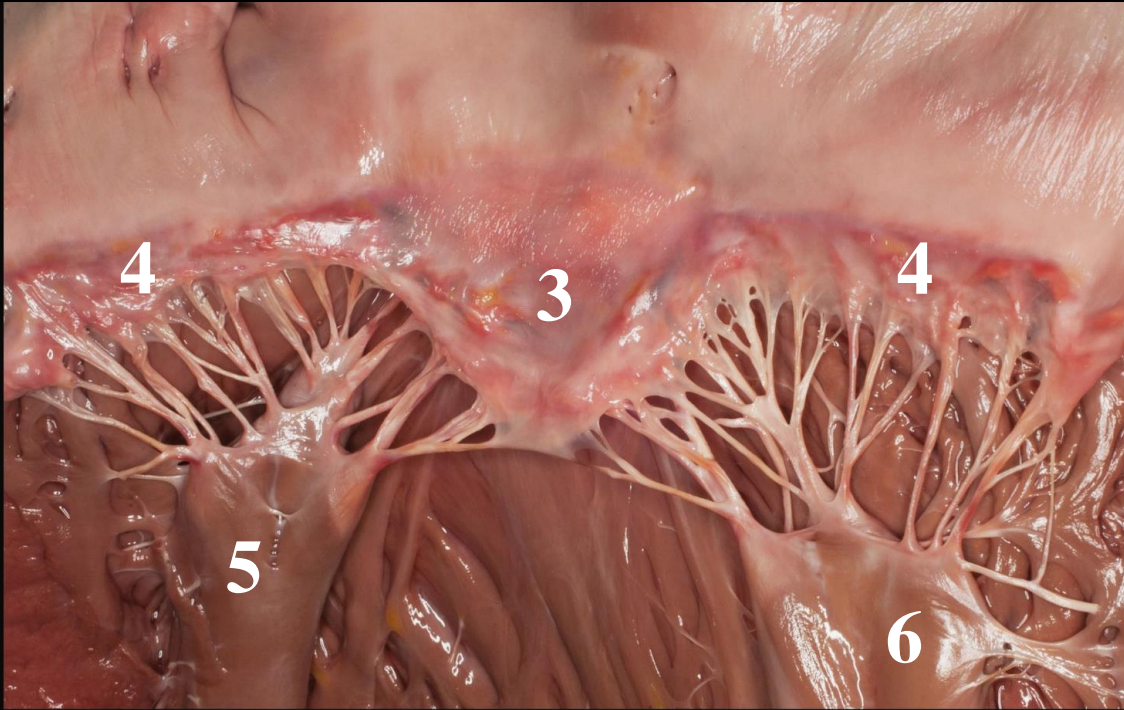
3. Cuspis anterior

4. Cuspis posterior

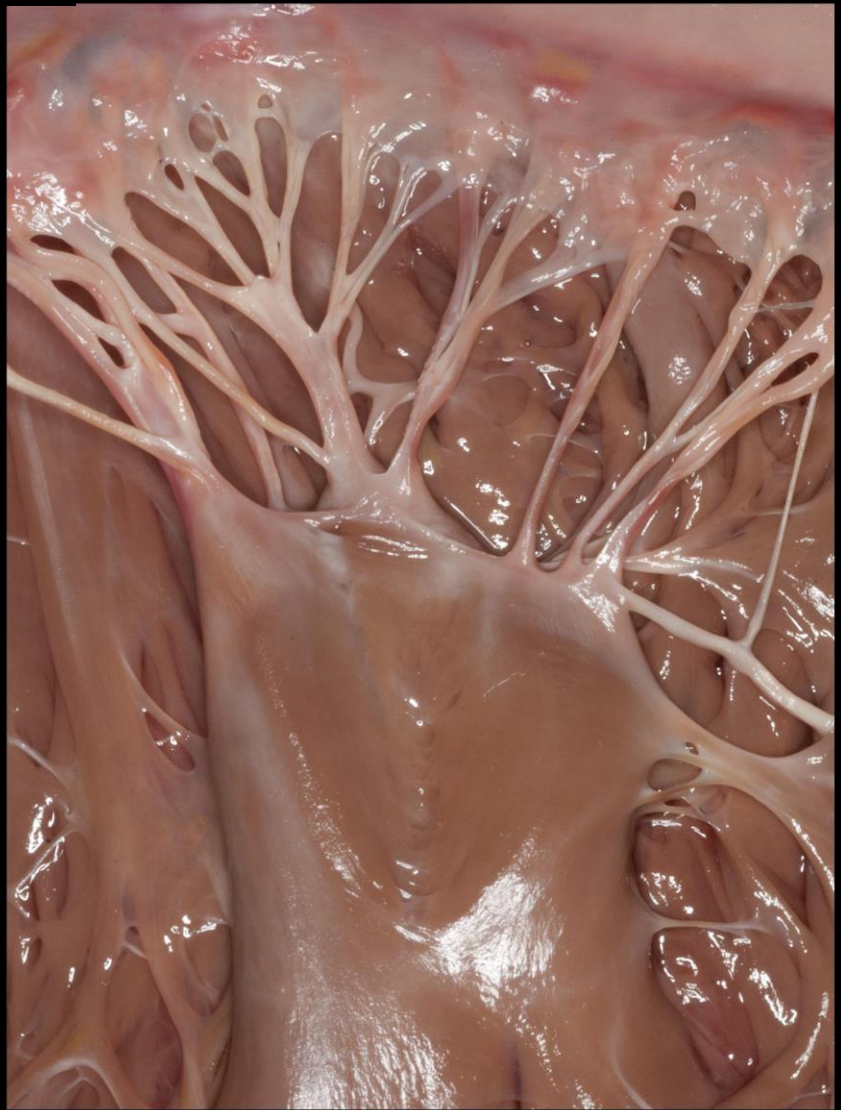
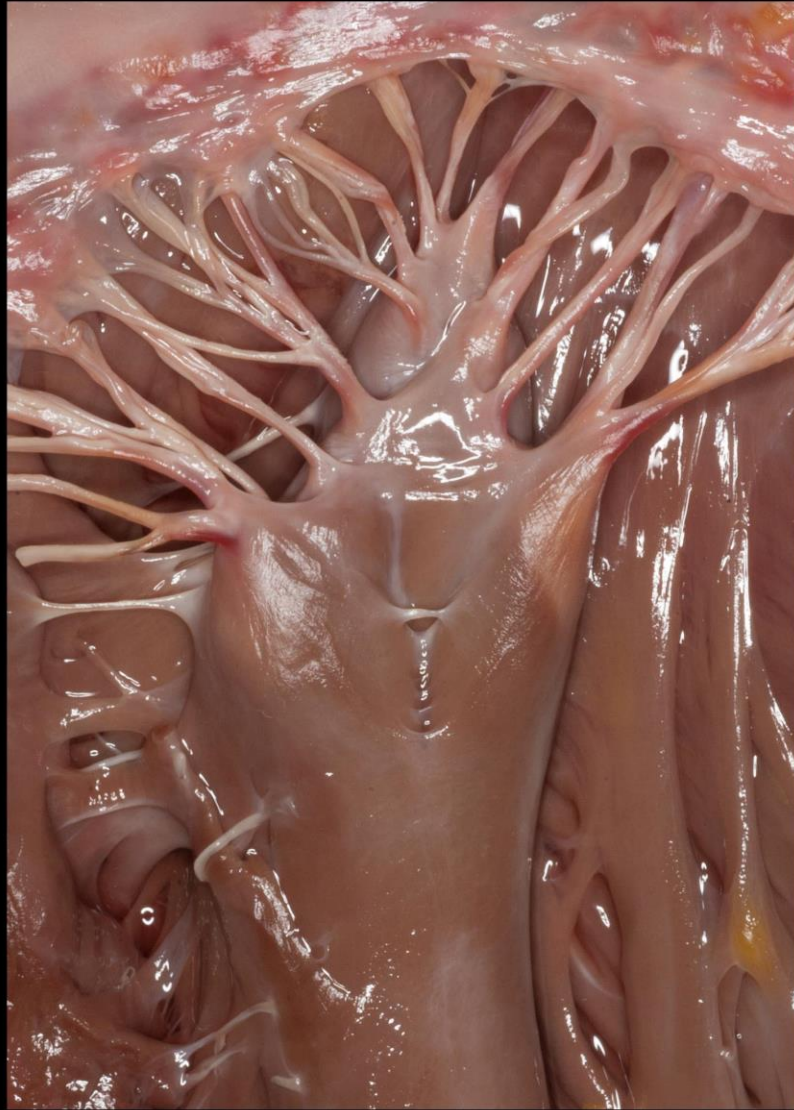
Chordae tendineae

5. M. papillaris anterior

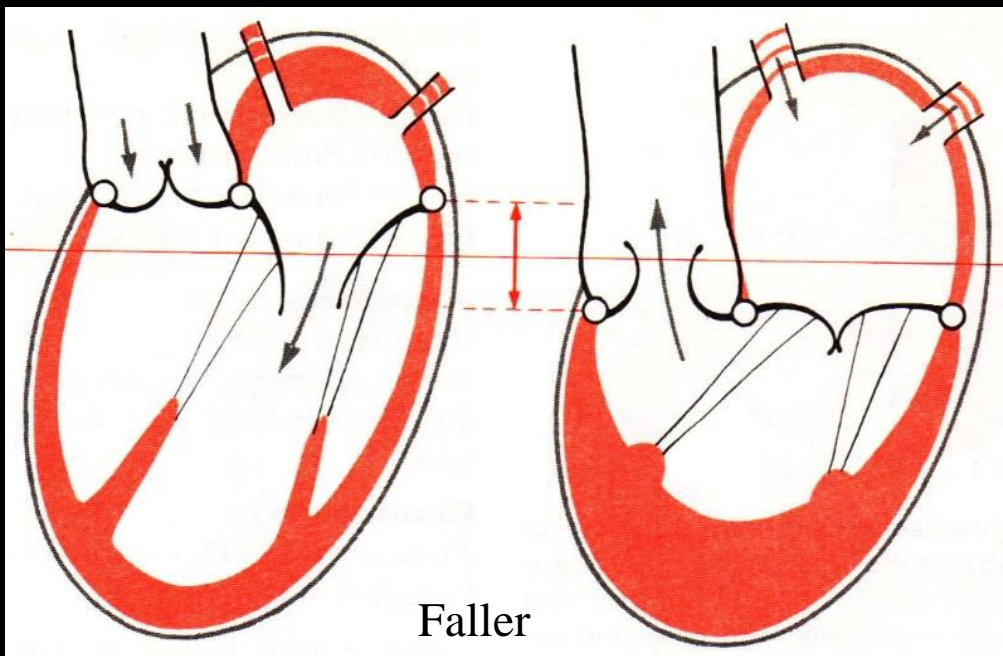
6. M. papillaris posterior



# Variabilität der Papillarmuskeln

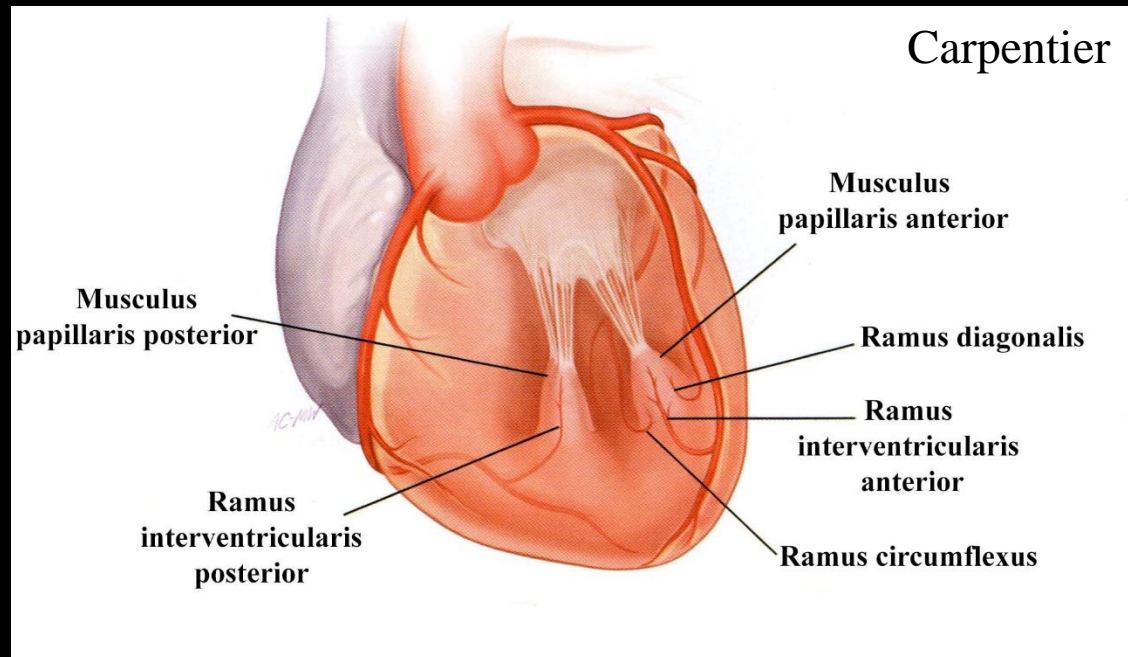




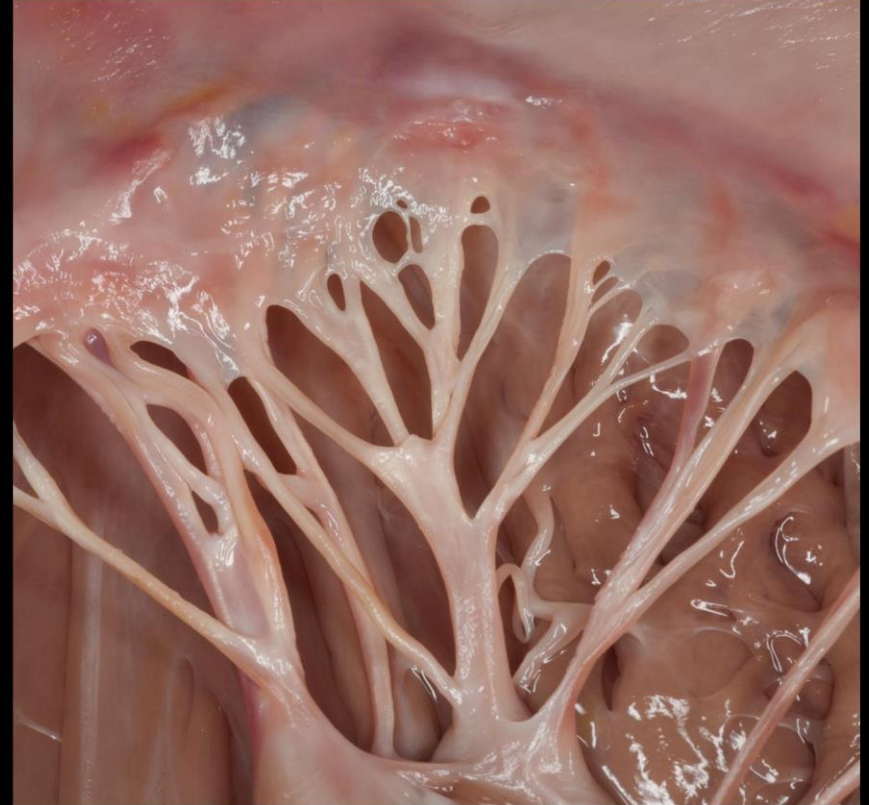
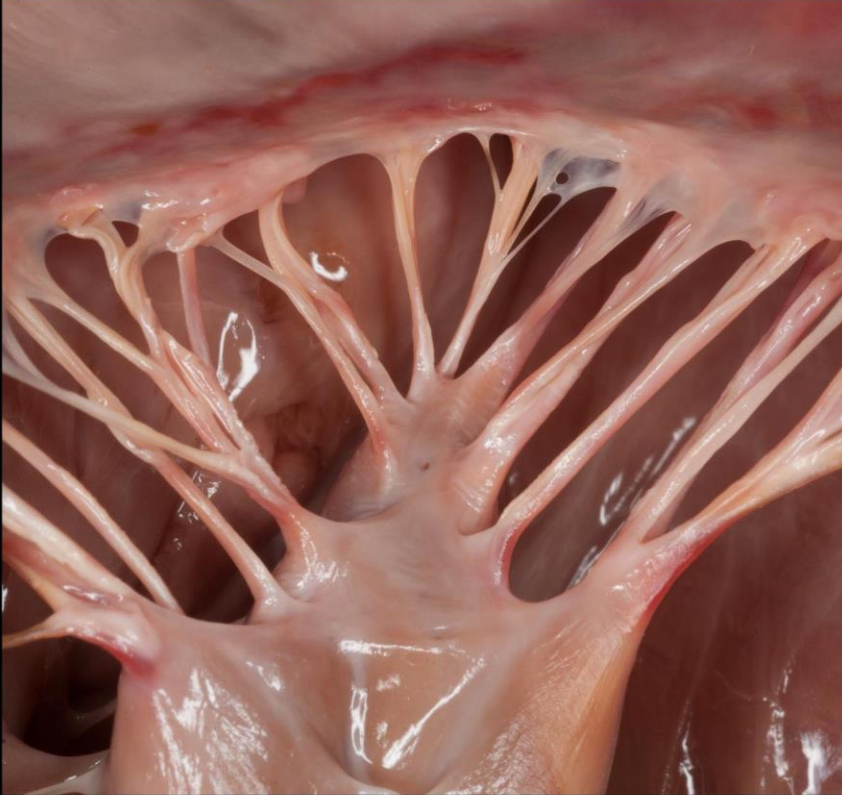


## Kontraktion der Papillarmuskeln

## Blutversorgung der Papillarmuskeln



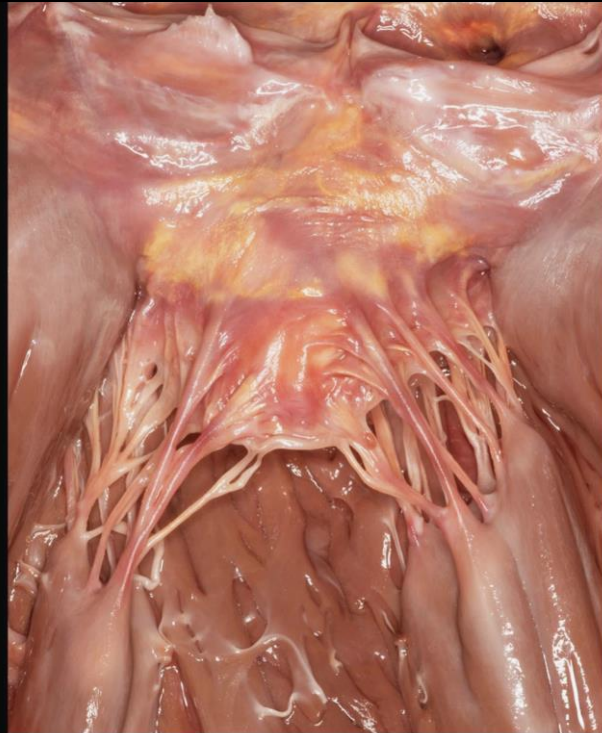
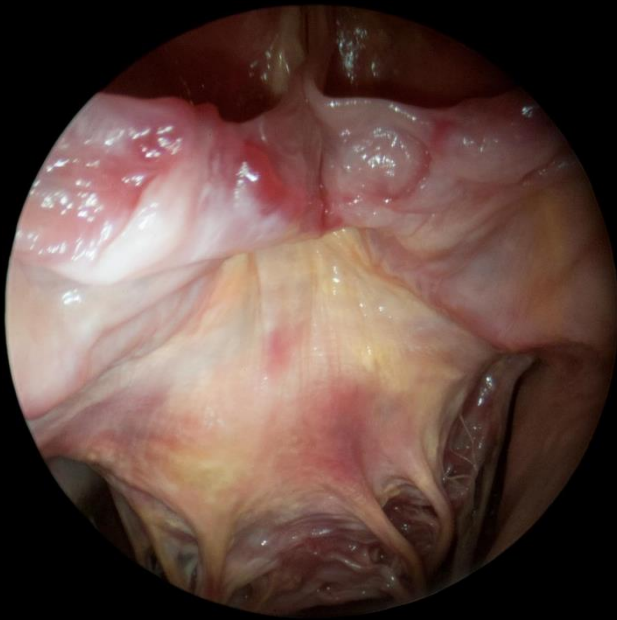
# Kommissuren der Mitralklappe



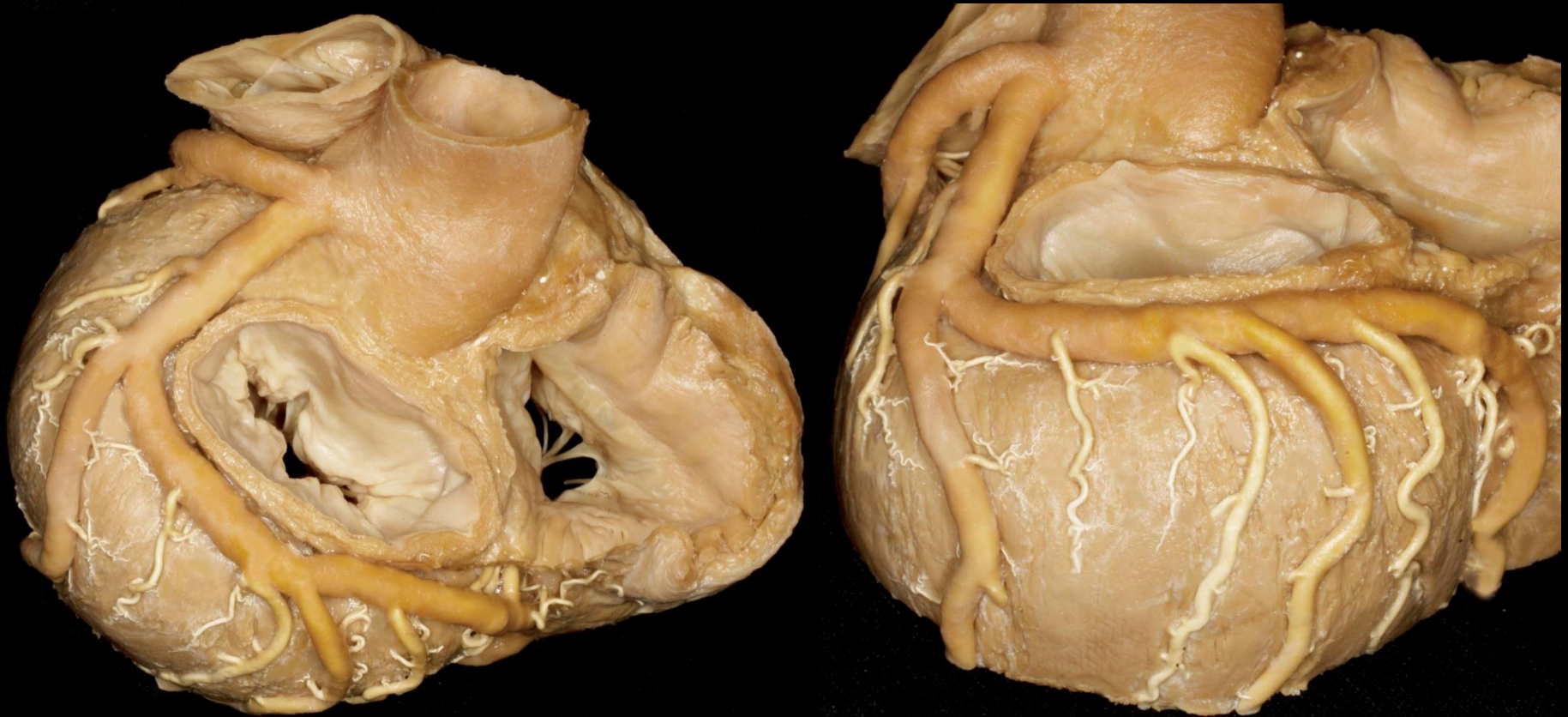
**Cuspid commissuralis**

- anterolateralis
- posteromedialis

# Mitralklappe und Aortenklappe



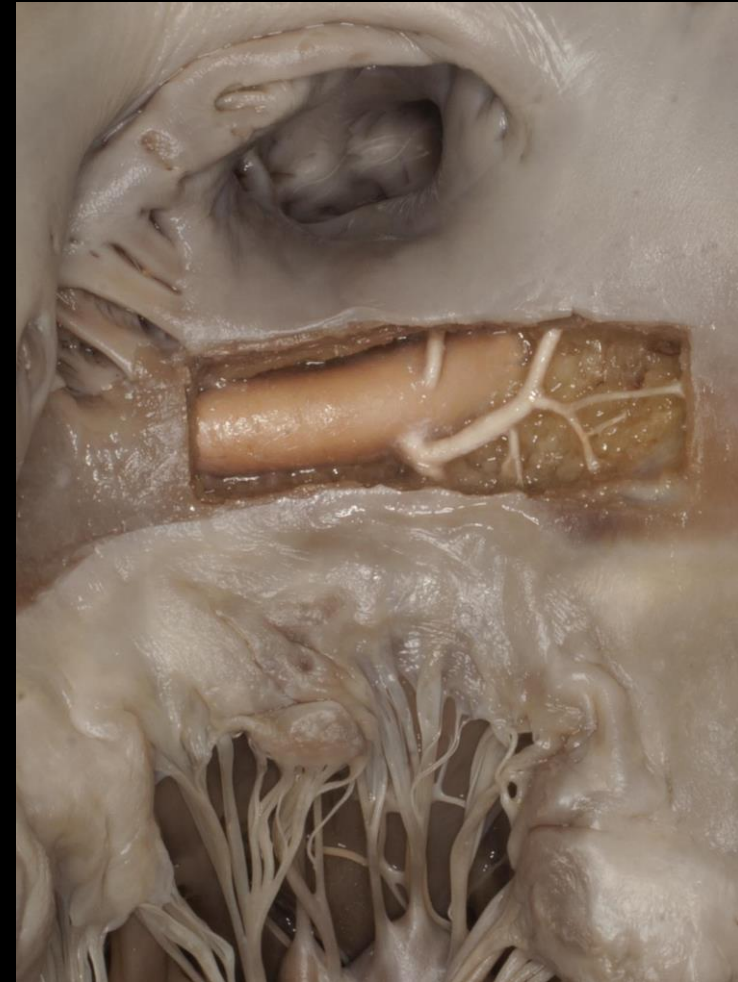
# Herzkranzgefäße um die Mitralklappe



# Umgebung des Mitralklappenannulus



# Die Mitralklappe und der Ramus circumflexus



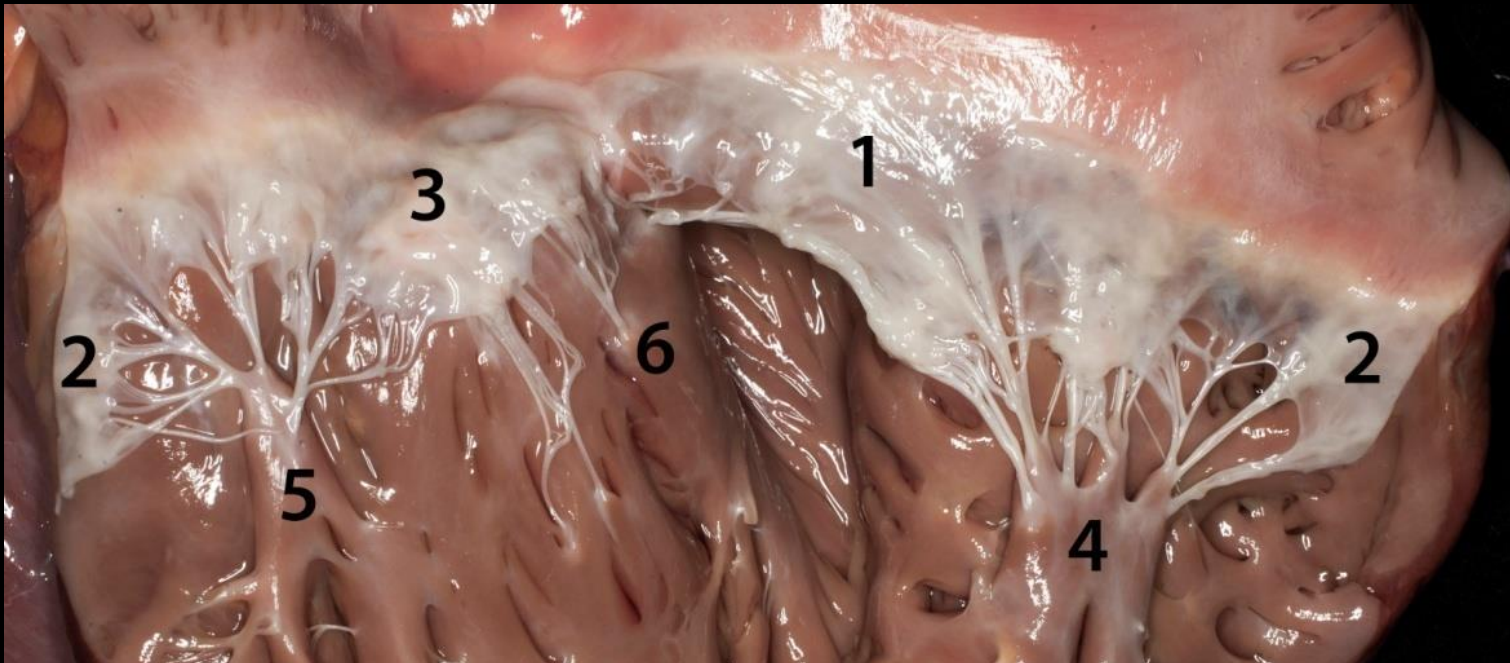
# Valva tricuspidalis

1. Cuspis anterior
2. Cuspis posterior
3. Cuspis septalis

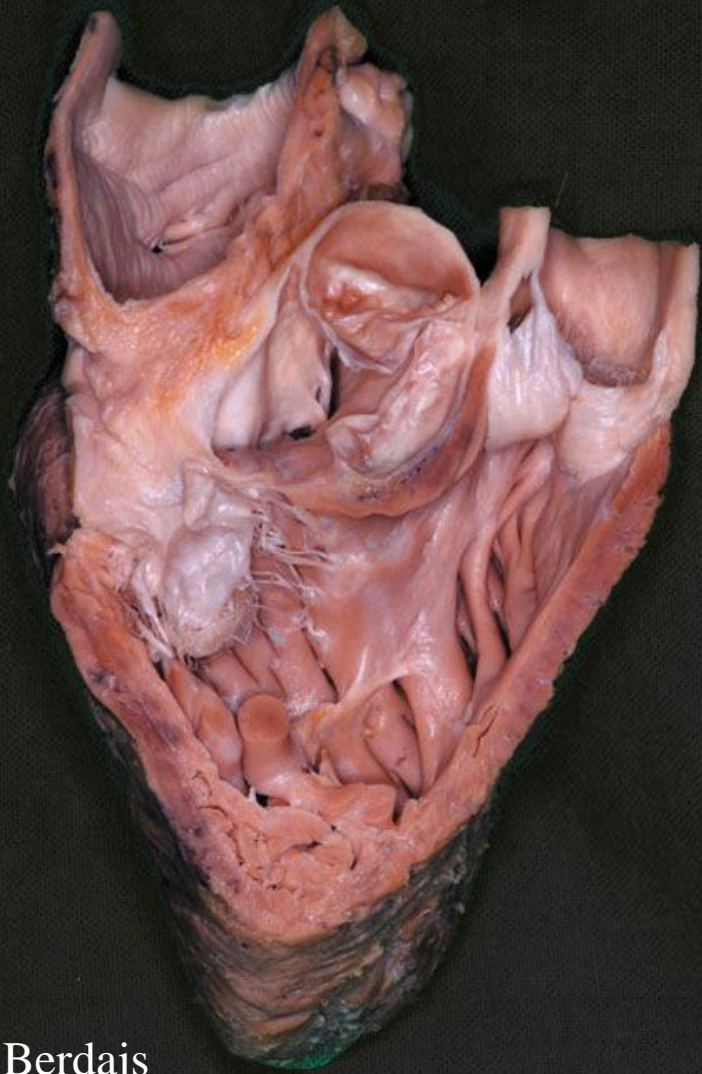


## Chordae tendineae

4. M. papillaris anterior
5. M. papillaris posterior
6. M. Papillaris septalis



# Valva tricuspidalis



Berdajs

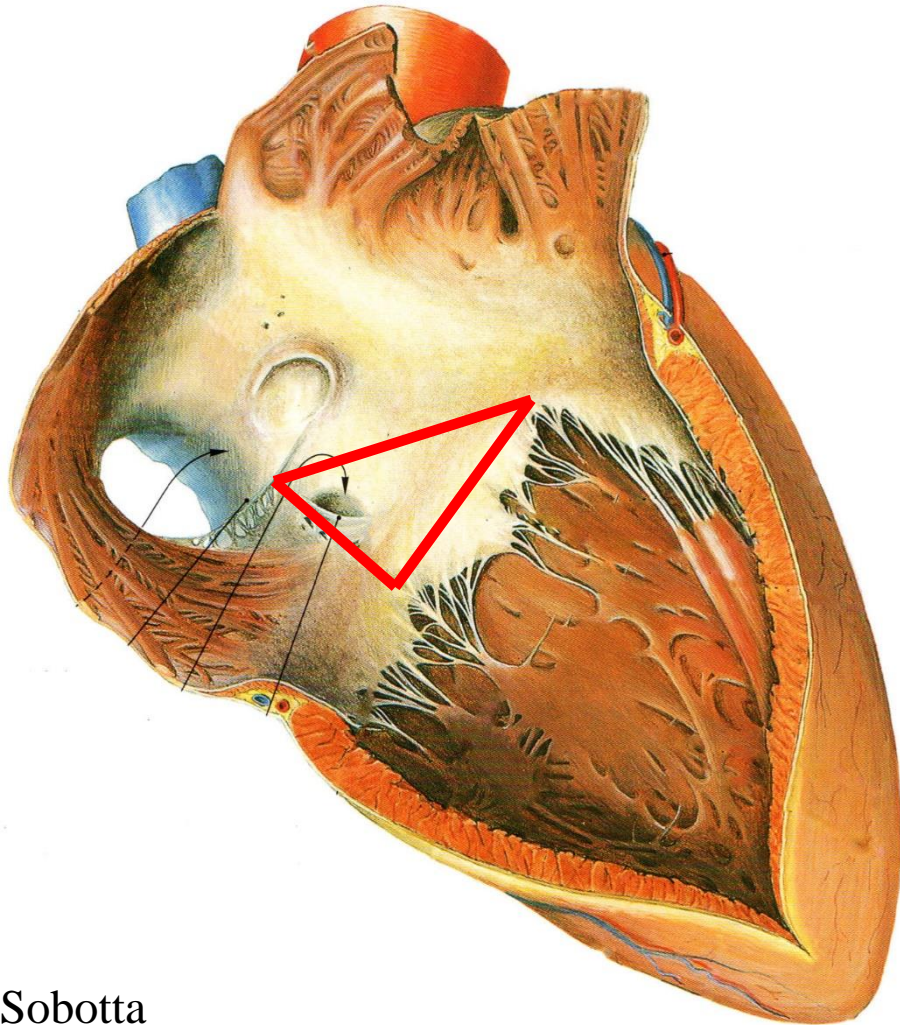
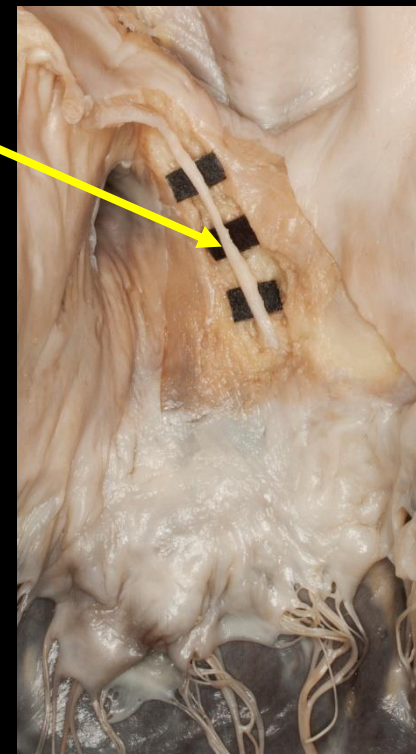


*Trabecula septomarginalis*



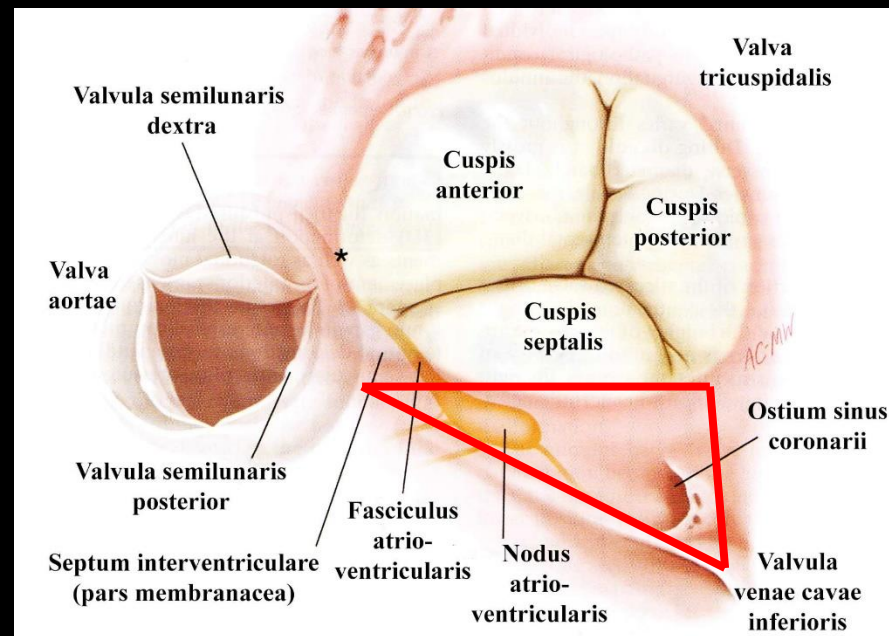
# Der Koch-Dreieck und der Nodus atrioventicularis

## Todaro-Sehne



Sobotta

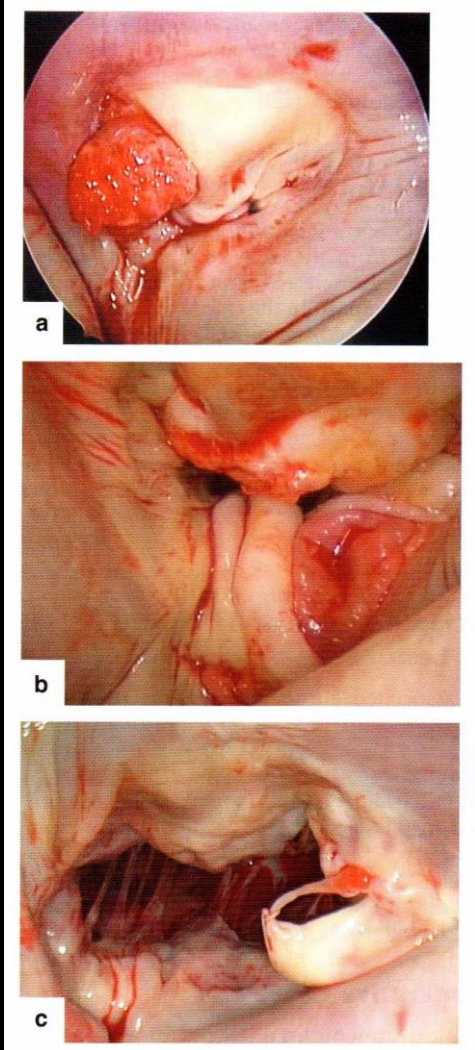
## Carpentier



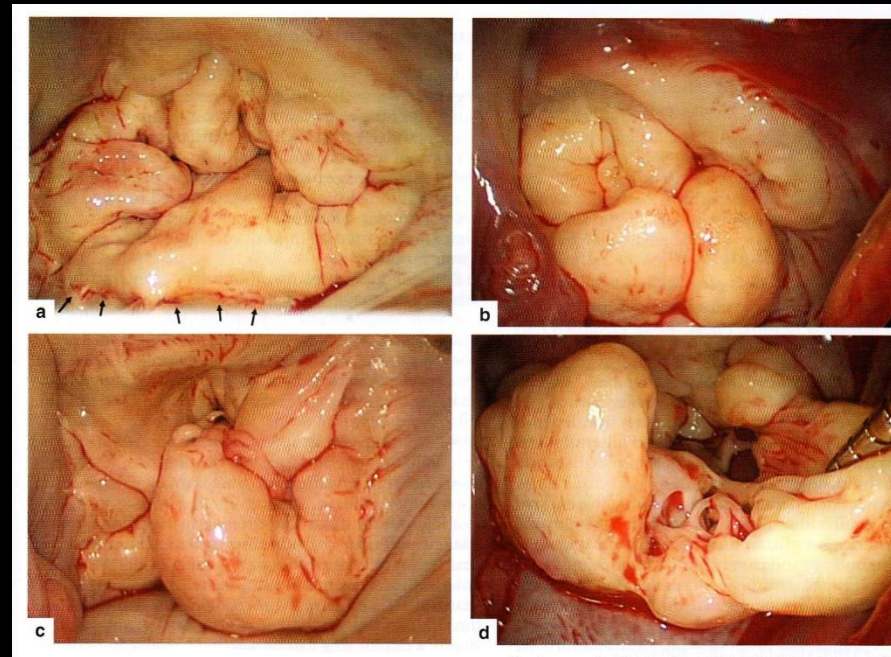
**Klinische Anatomie,  
Pathologie und  
Chirurgie der  
Mitralklappe**

# Erkrankungen der Mitralklappe

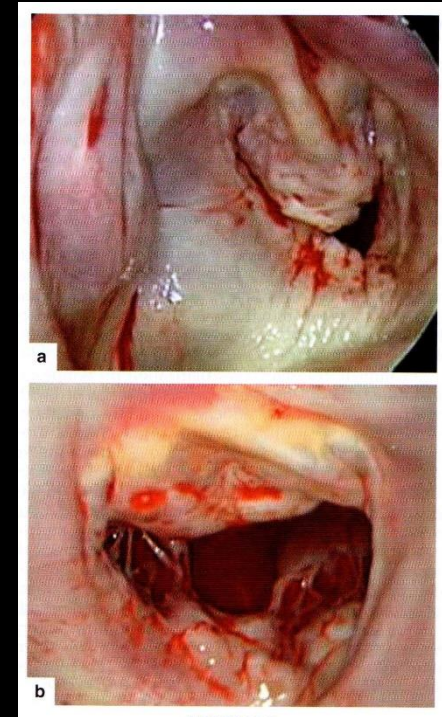
## Endokarditis



## Barlow-Klappe



## Ischaemische Kardiomyopathie





# Echokardiografie der Mitralklappeninsuffizienz

