



# SURGERY OF THE AORTIC ARCH

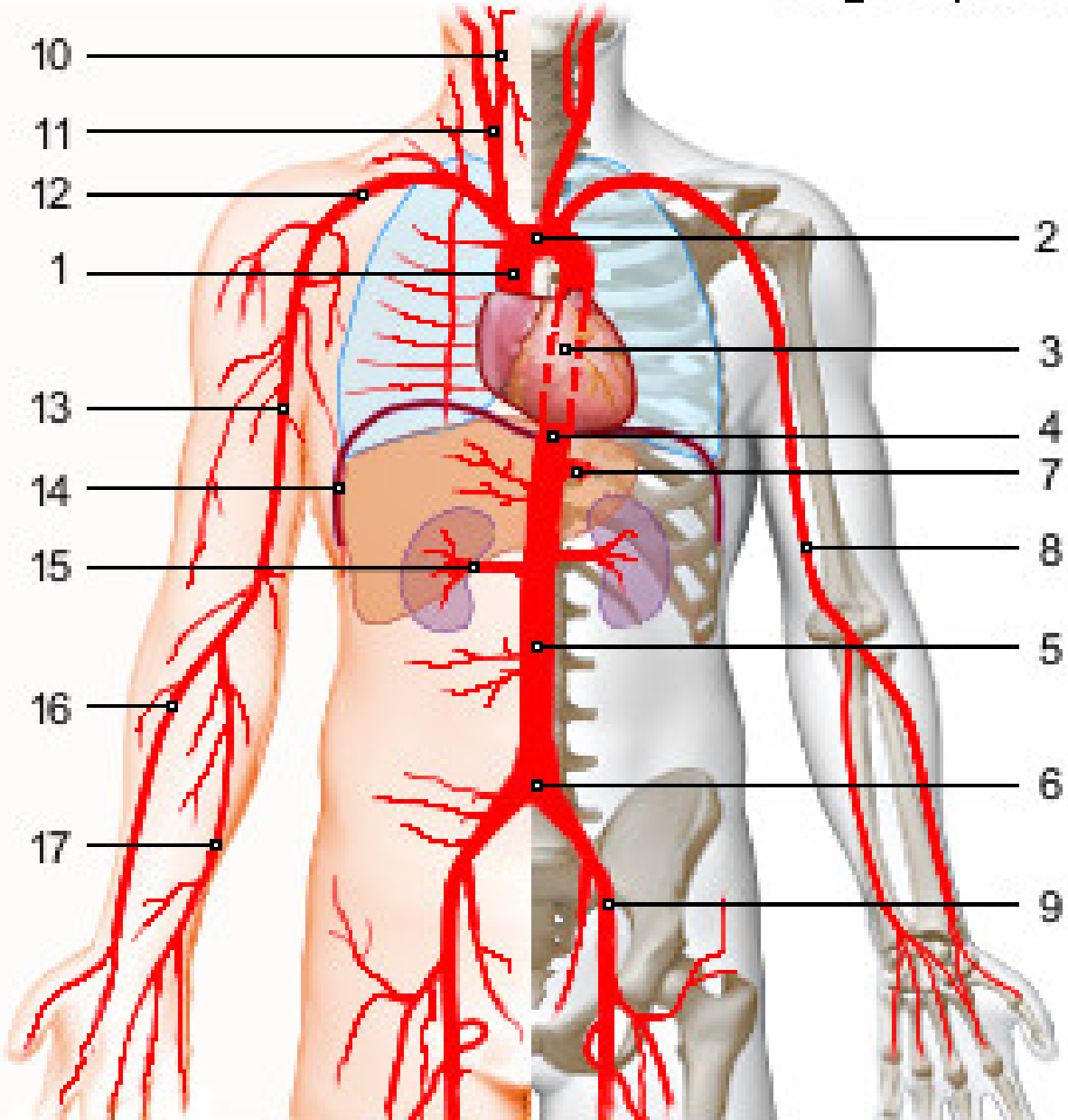
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## NEW TREATMENT STRATEGIES

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Clinic for Cardiac Surgery

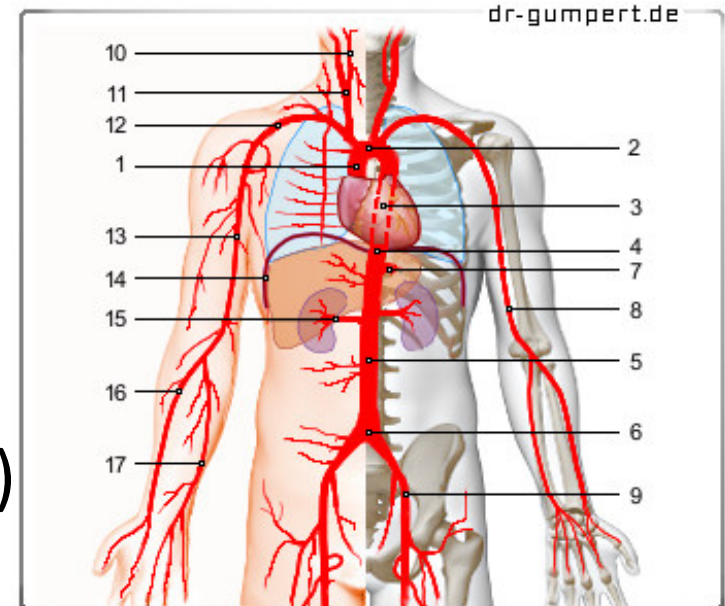


**KLINIKUM** Passau

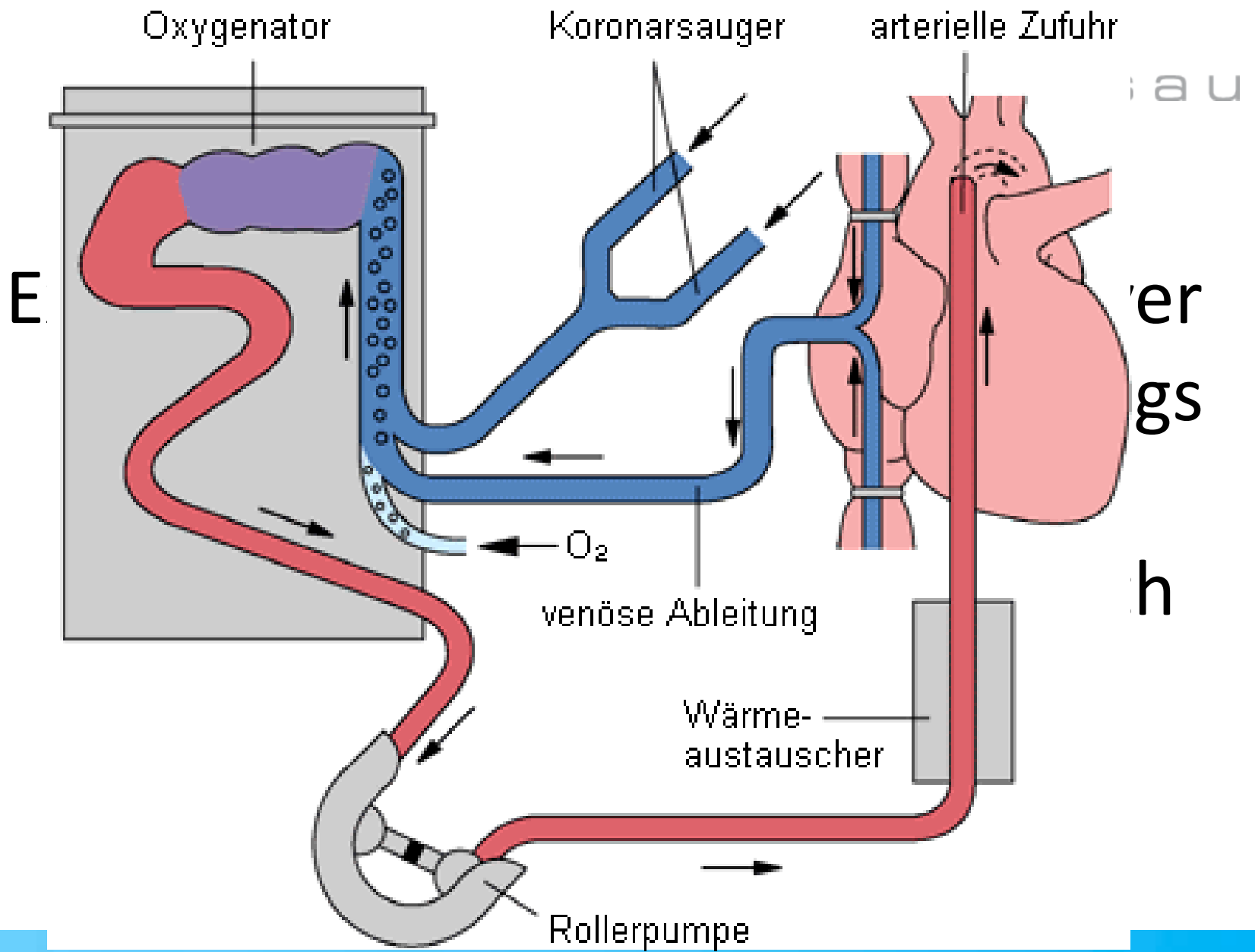


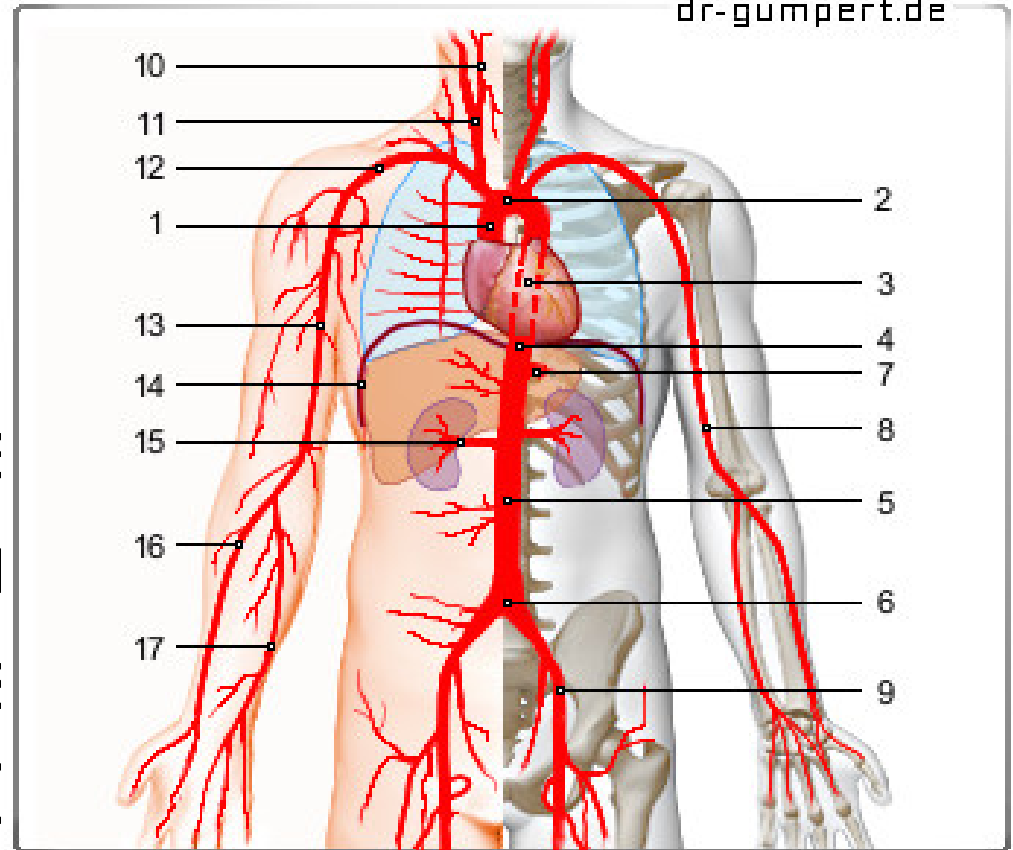
- Surgery of the aortic arch is always complex surgery, because the aorta has to be opened. With the aorta open, the perfusion of

- the heart
- the brain
- the abdomen
- the extremities (arms and legs)



has to be secured by **extracorporeal circulation.**



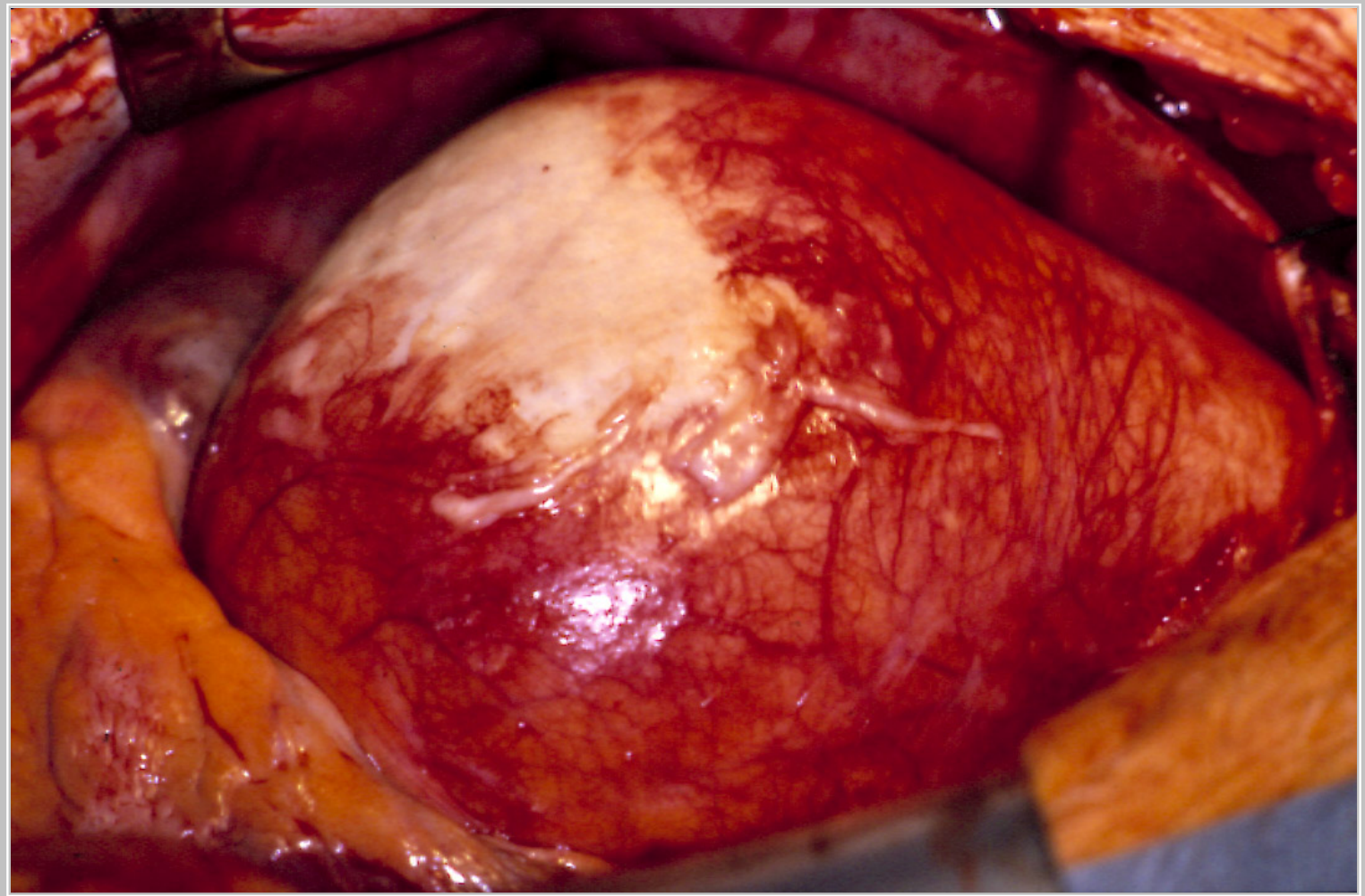


With the aorta  
be perfused  
metabolism  
temperature is  
less than 25°C  
arrest has to be applied. The head (and  
also other organs) can be perfused  
separately.



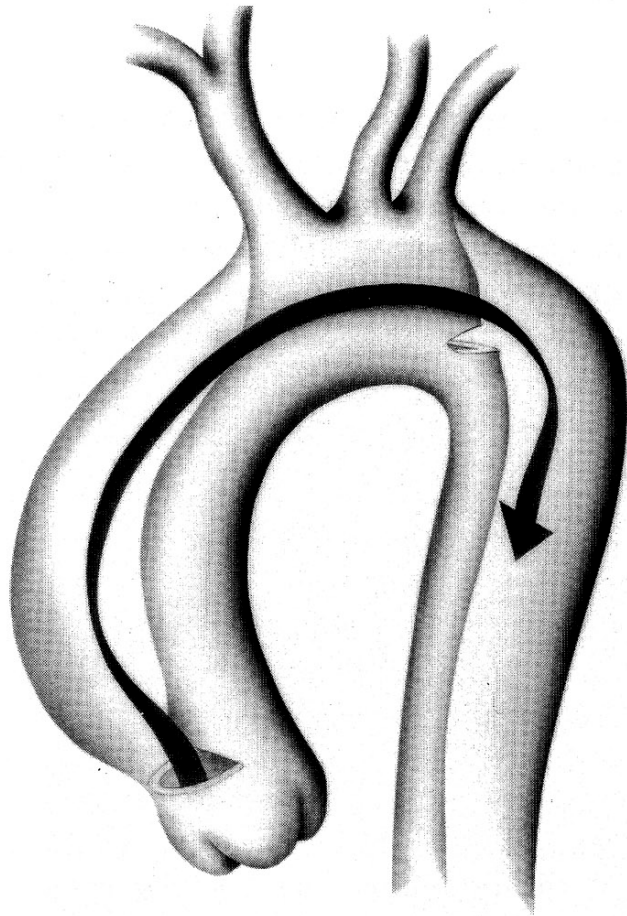
The perfusionist is responsible for the heart-/lung-machine

In the following slides I will show you  
the pathologies of the aortic arch  
and how we treat them

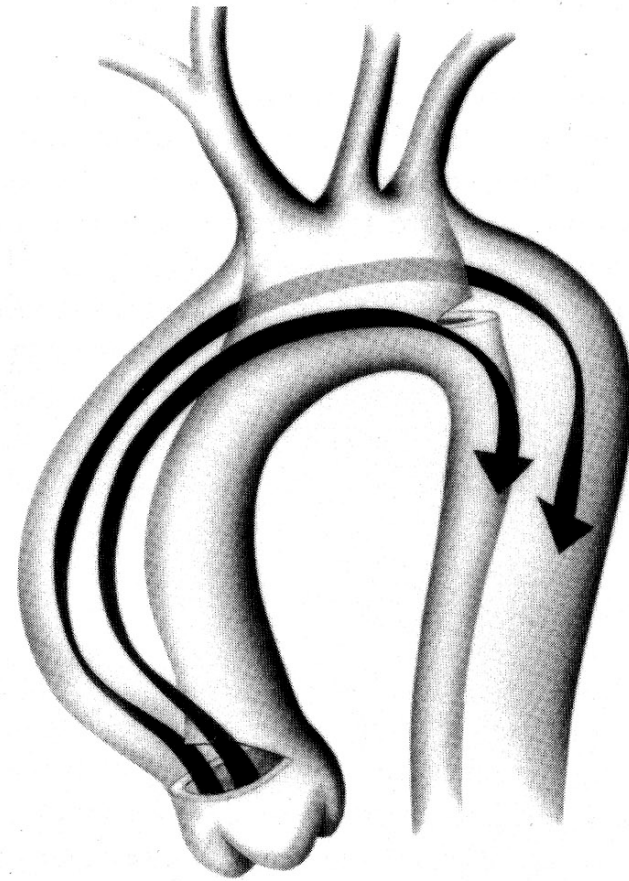


Massive aneurysm of ascending aorta





A



B

Dissection of ascending and descending aorta

- In all cases of problem with

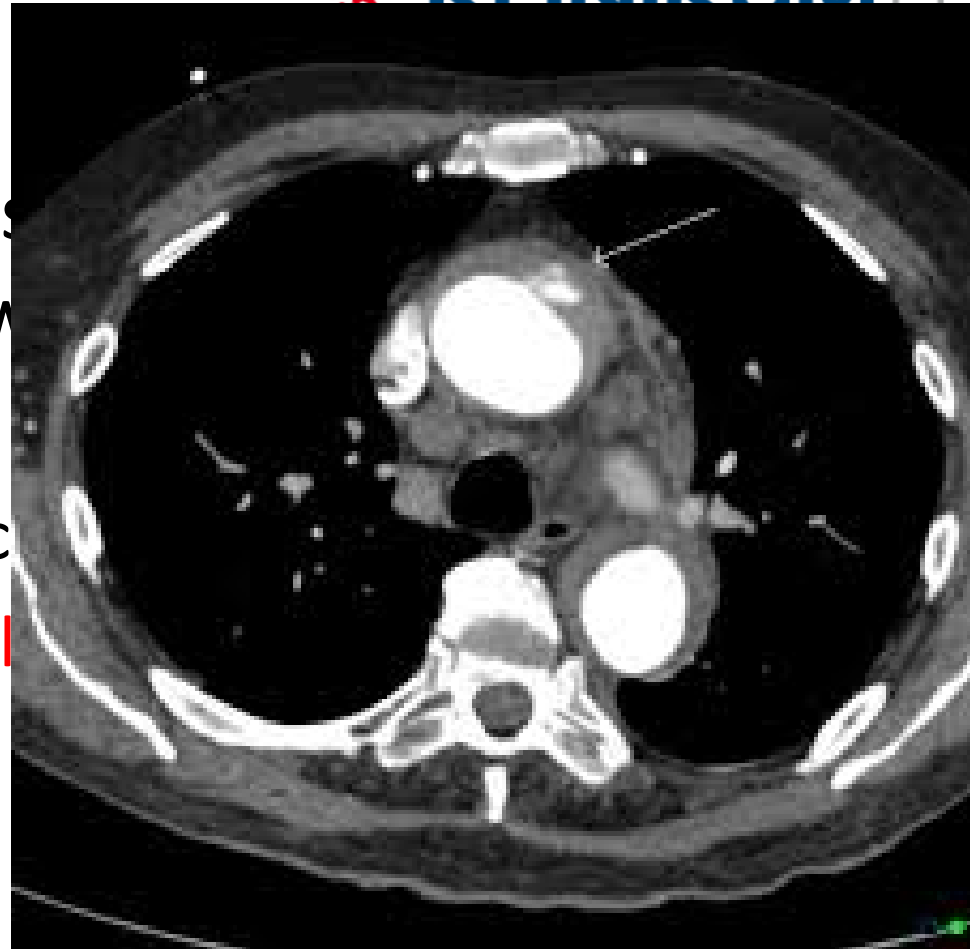
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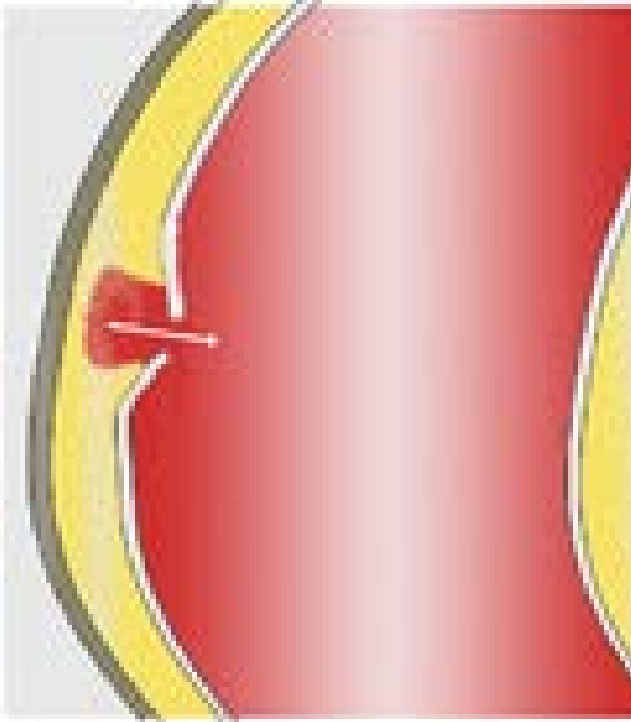




- In all cases  
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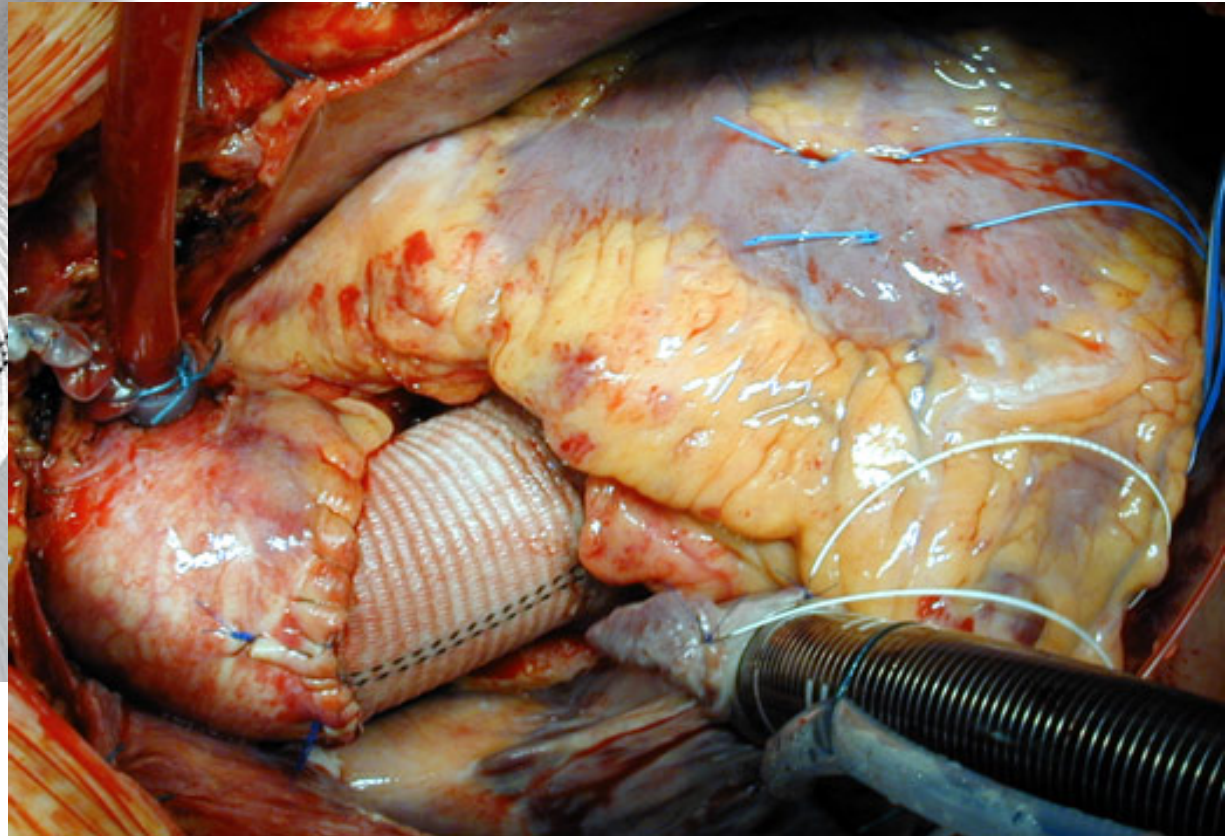
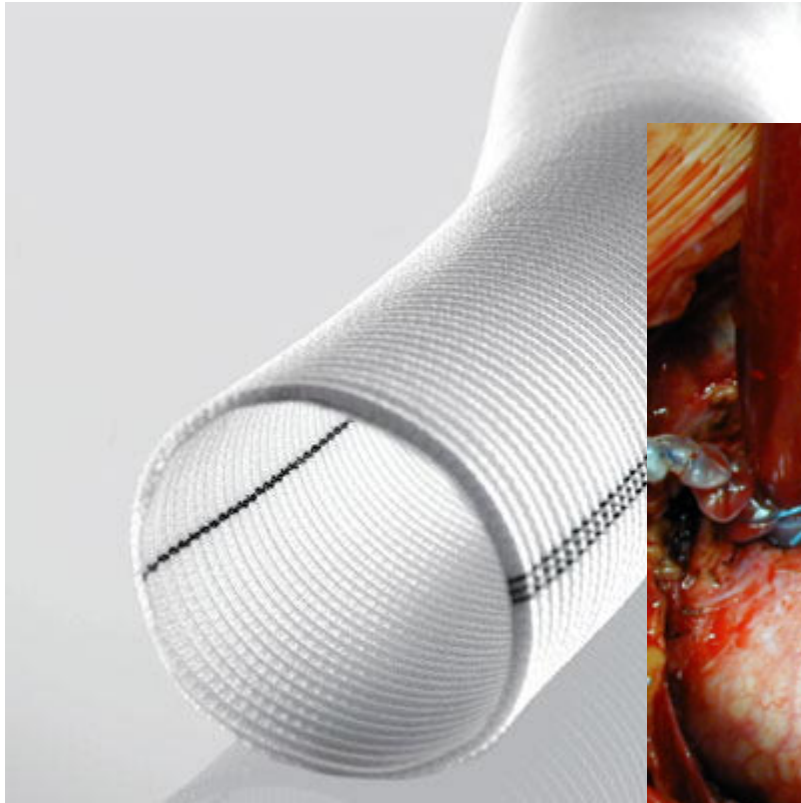
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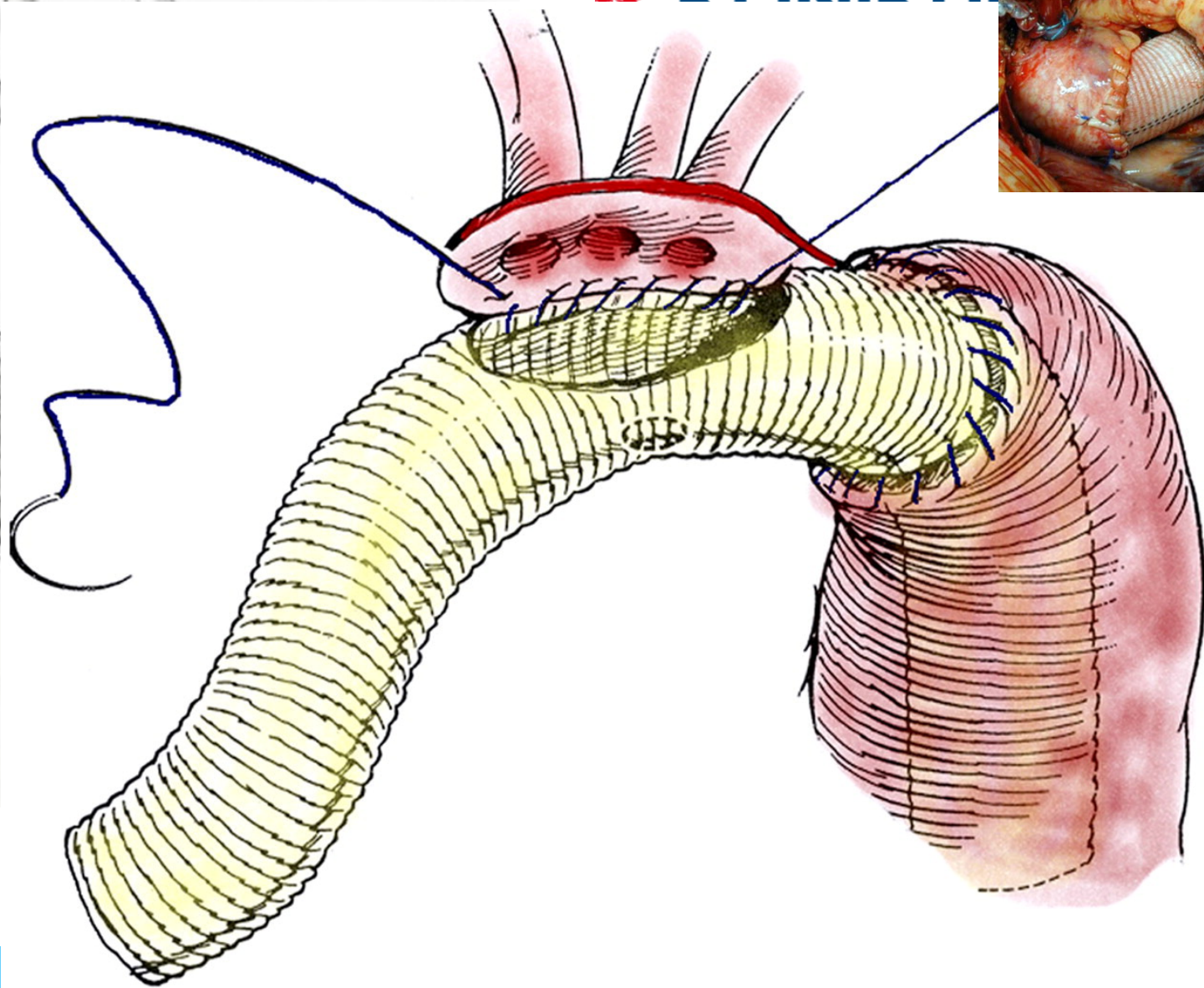
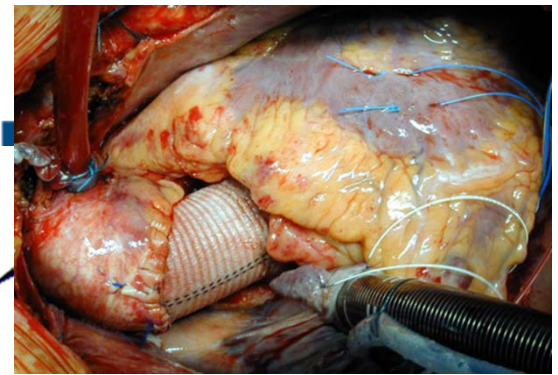




- dissected, in da

**Now we come to the surgical and  
interventional forms of therapy**

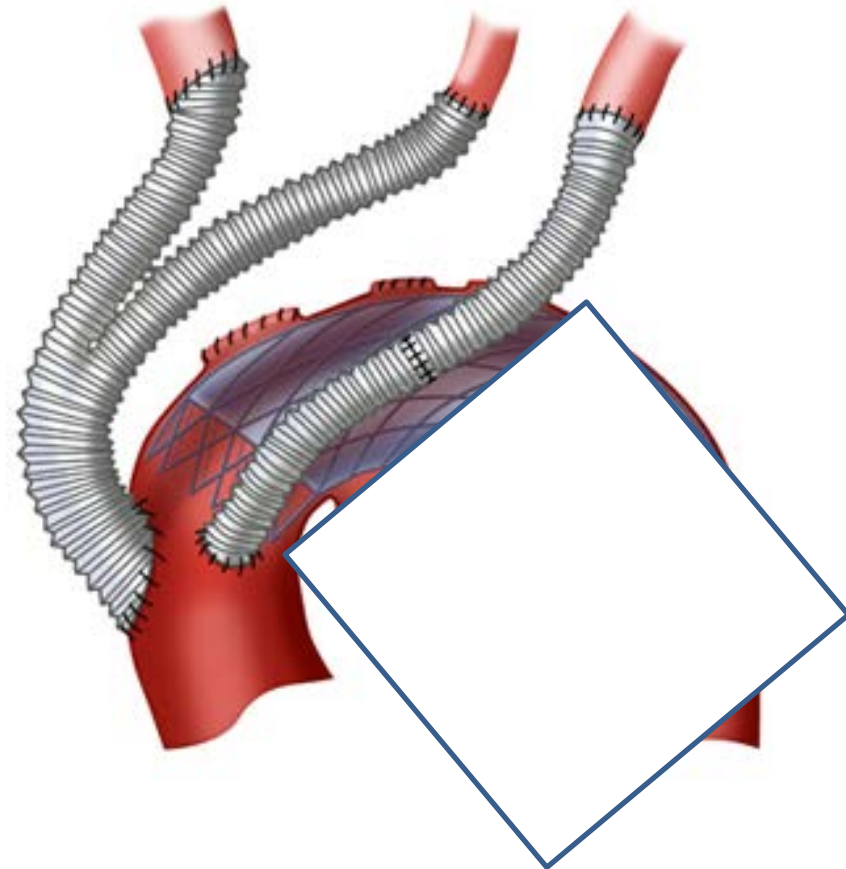
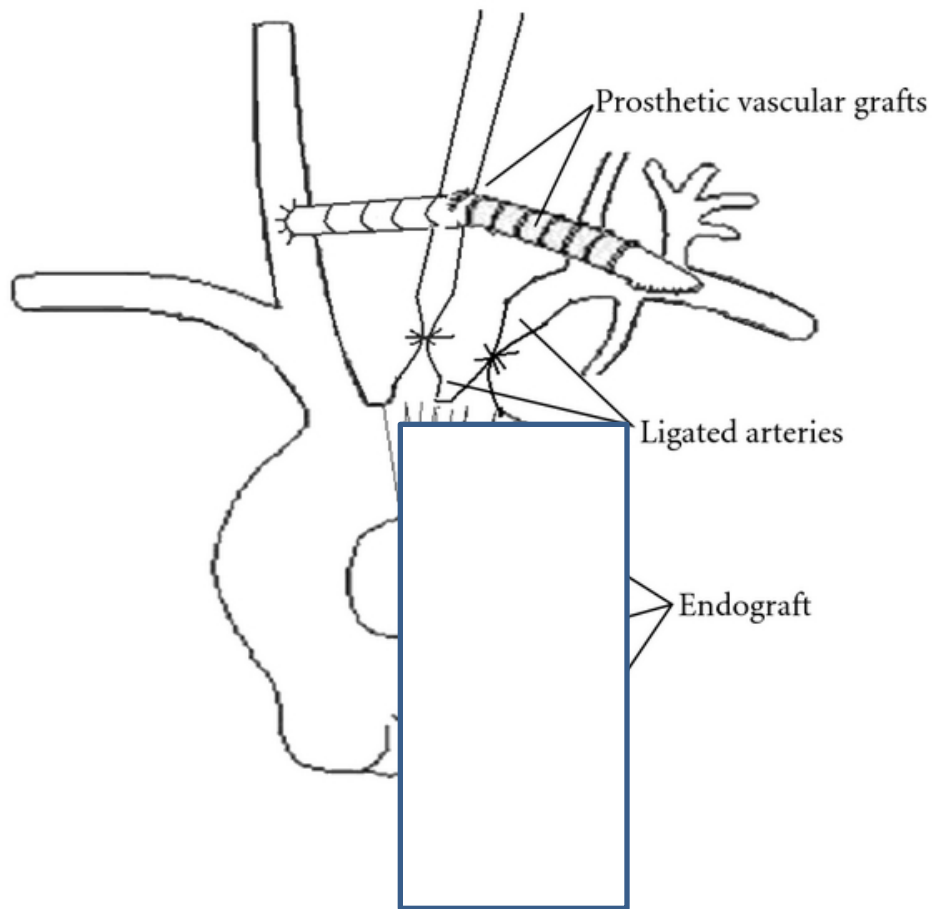




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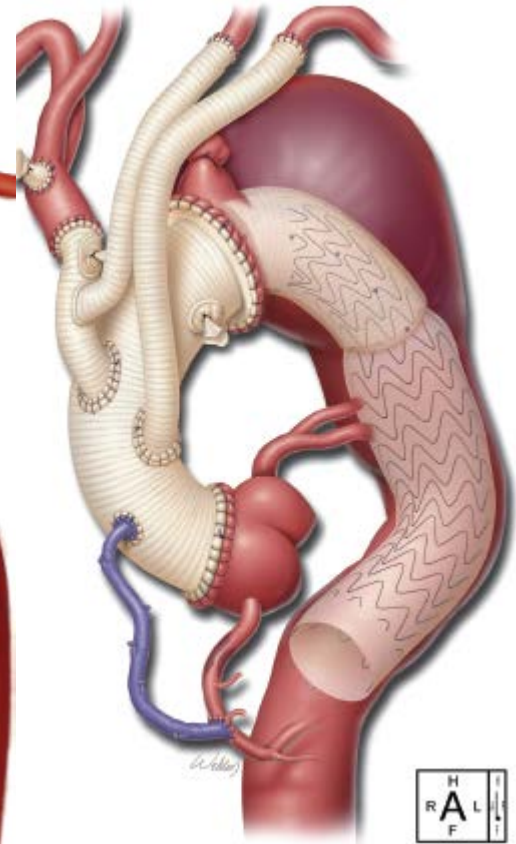
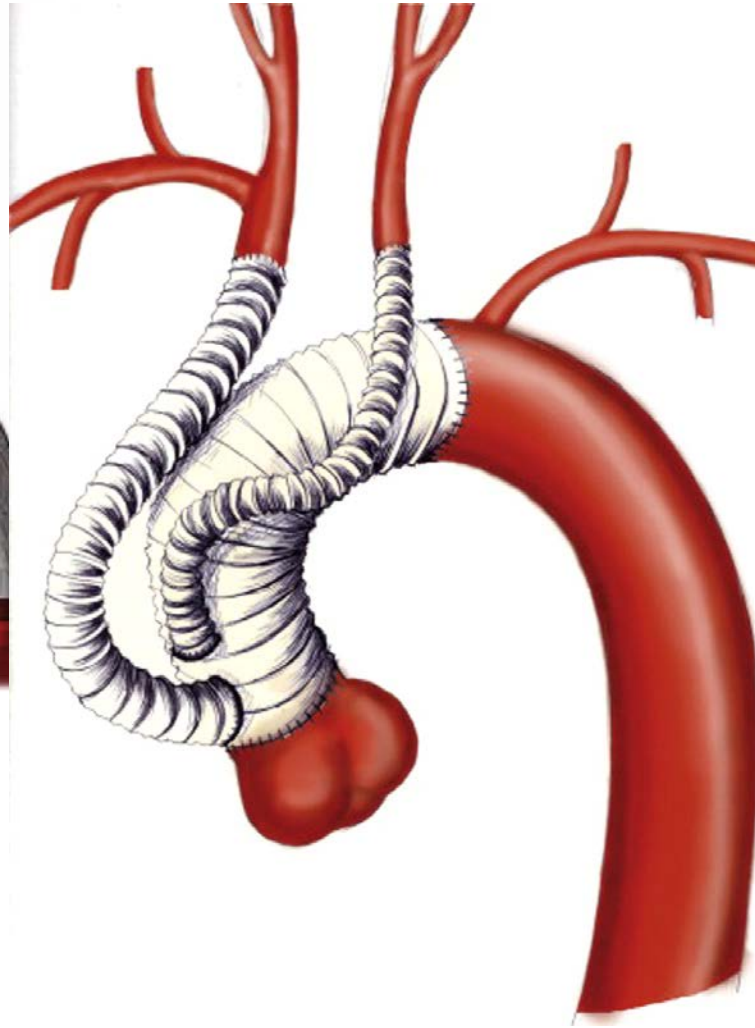
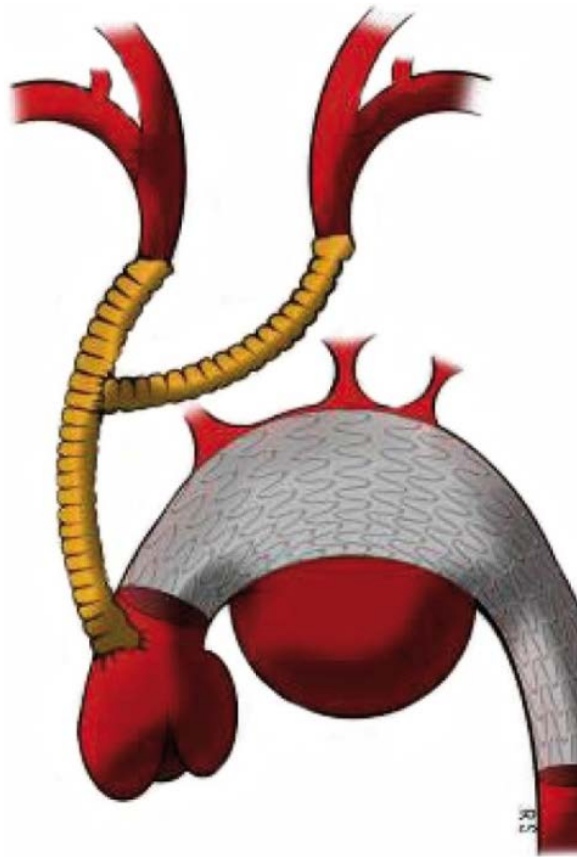
- In recent years, a surgical modification (re-direction) of the natural course of the head vessels allows for a range of alternatives in the treatment of pathologies in the aortic arch. In principle we can either connect the head vessels with each other or redirect and reconnect them to the aorta





Connected with each other

Re-connected with the aorta



- The techniques I described have considerably widened the range of surgical and/or interventional therapy
- In many hospitals, patients are discussed in a multidisciplinary team to offer each individual patient the best form of therapy

## Conclusion

**I would like to conclude that surgery of the aortic arch is demanding and requires a team of specialists (cardiac surgeon, perfusionist, vascular surgeon, interventional radiologist, anesthetist)**

**In recent years, the techniques were refined considerably and allow for individualized therapy**