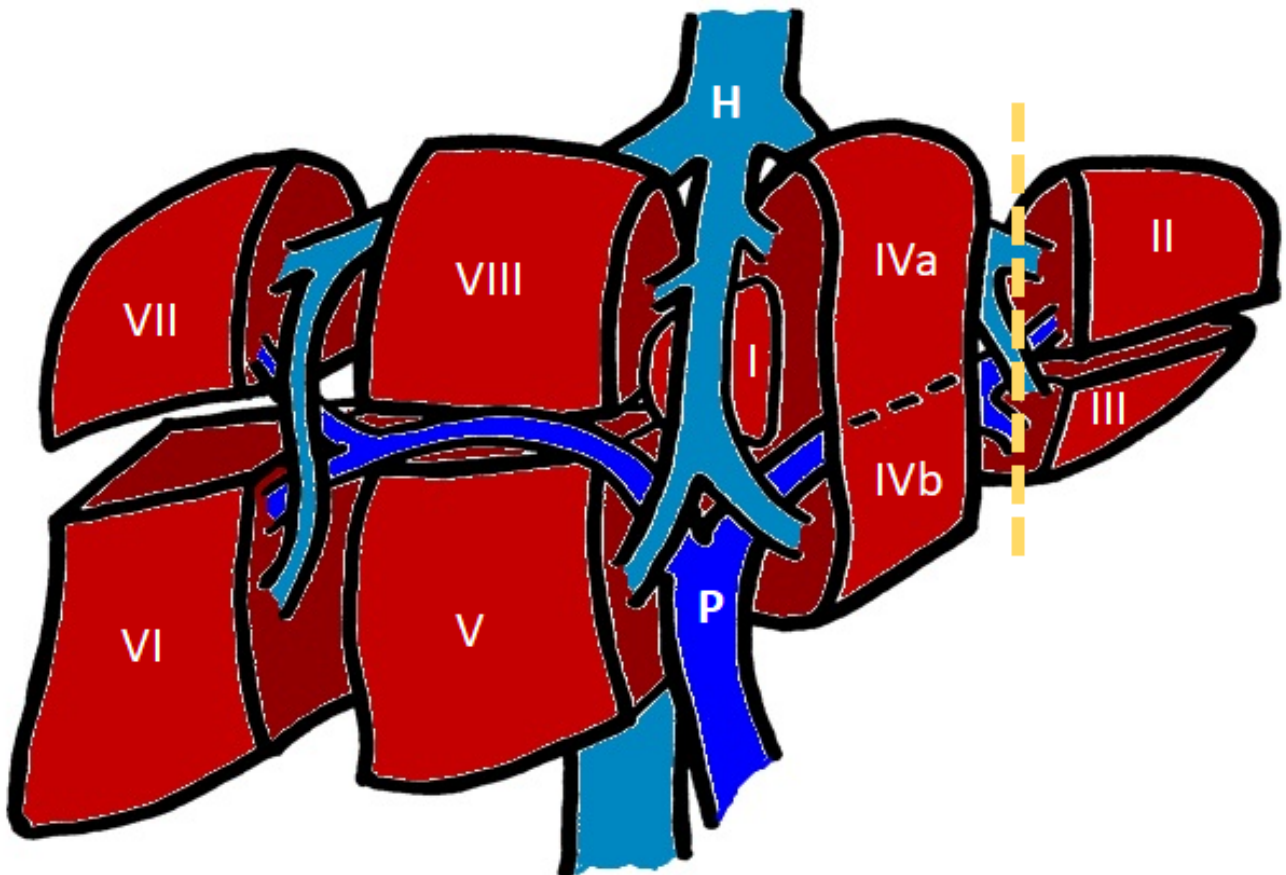


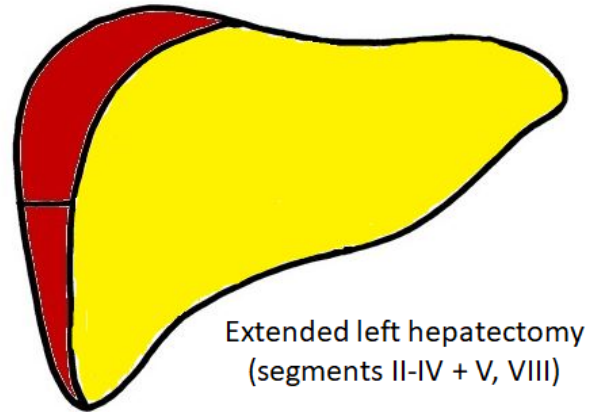
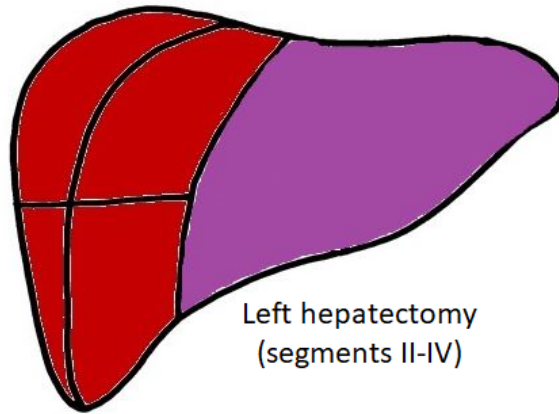
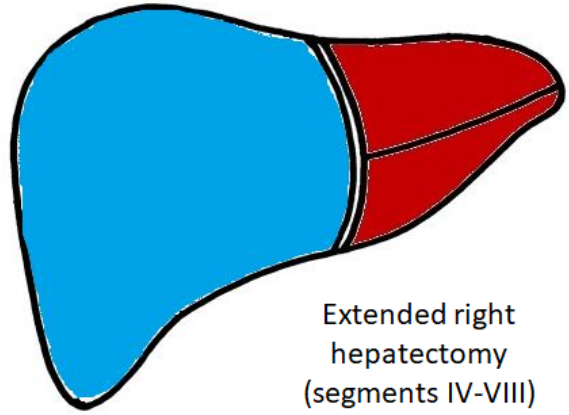
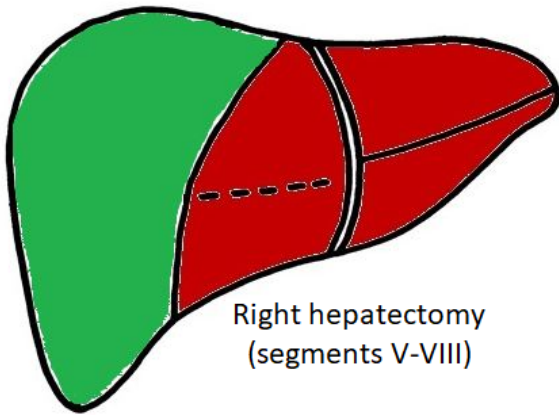
SUMMARY OF LEARNING POINTS

LIVER SEGMENTAL ANATOMY (COUINAUD)



- The liver consists of 8 functional segments
- The left and right branches of the **portal vein (P)** divide the liver into upper segments (II, IVa, VIII, VII) and lower segments (III, IVb, V, VI)
- The middle branch of the **hepatic vein (H)** divides the liver into a left lobe (segments II-IV) and right lobe (segments V-VIII)
 - The **falciform ligament** (dotted yellow line) divides the left lobe into segments II/III and Segment IV
 - The **right hepatic vein** divides the right liver into segments V/VIII and VI/VIII)

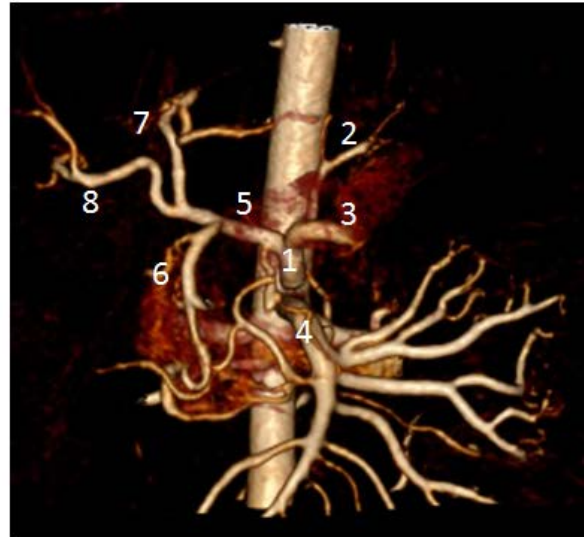
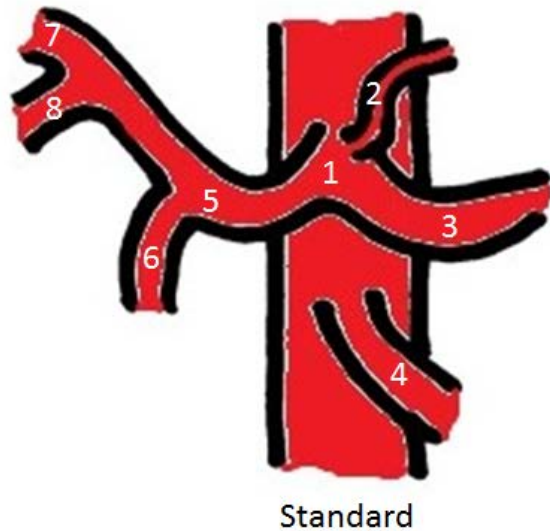
SURGICAL RESECTION PLANES



Terminology for surgical resection according to the Couinaud liver segmental anatomy

ARTERIAL ANATOMY AND VARIANTS

Standard anatomy:



1 = coeliac trunk

2 = left gastric artery

3 = splenic artery

4 = superior mesenteric artery (SMA)

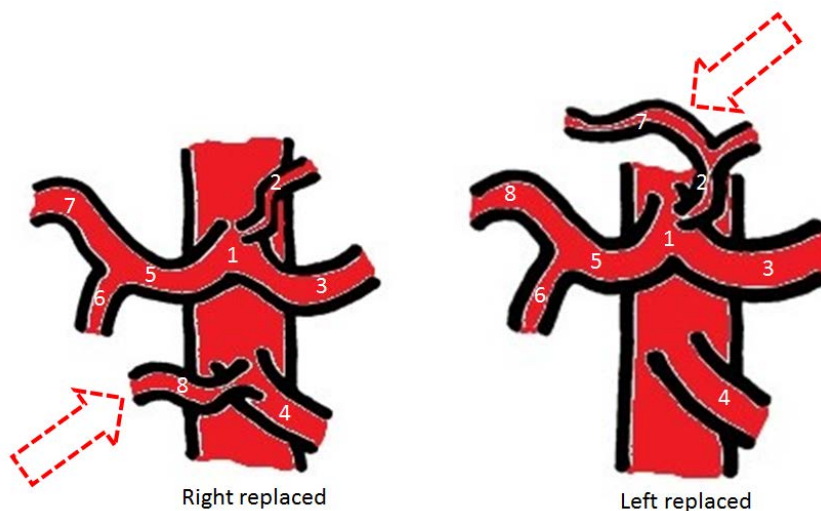
5 = common hepatic artery

6 = gastroduodenal artery

7 = left hepatic artery

8 = right hepatic artery

Two common examples of variant anatomy:

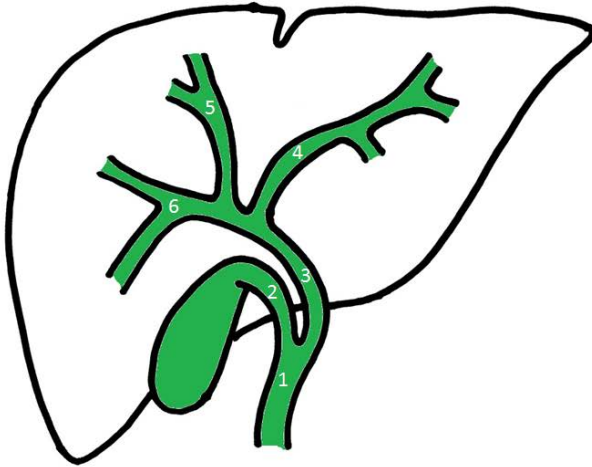


Right replaced: right hepatic artery originates from the SMA

Left replaced: Left hepatic artery originates from left gastric artery

BILE DUCT ANATOMY AND VARIANTS

Standard anatomy:



1 = common bile duct

2 = cystic duct

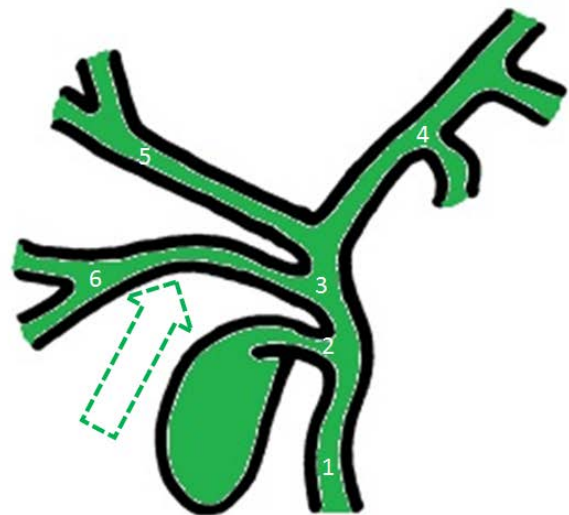
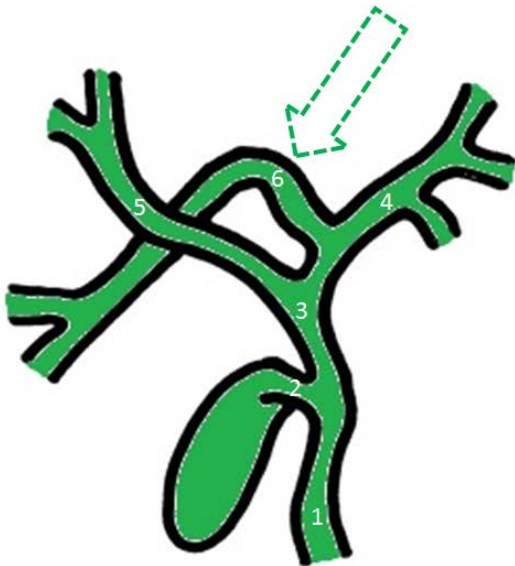
3 = common hepatic duct

4 = left hepatic duct

5 = right hepatic duct, anterior branch

6 = right hepatic duct, posterior branch

Two common examples of variant anatomy:



Left: right posterior branch originating from left hepatic duct

Right: aberrant right branch originating from common hepatic duct