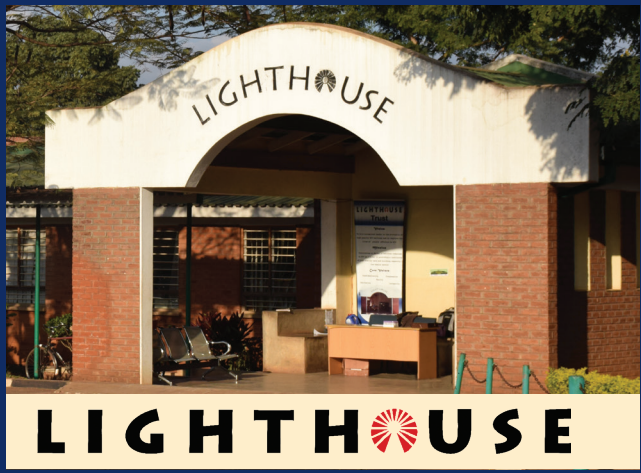
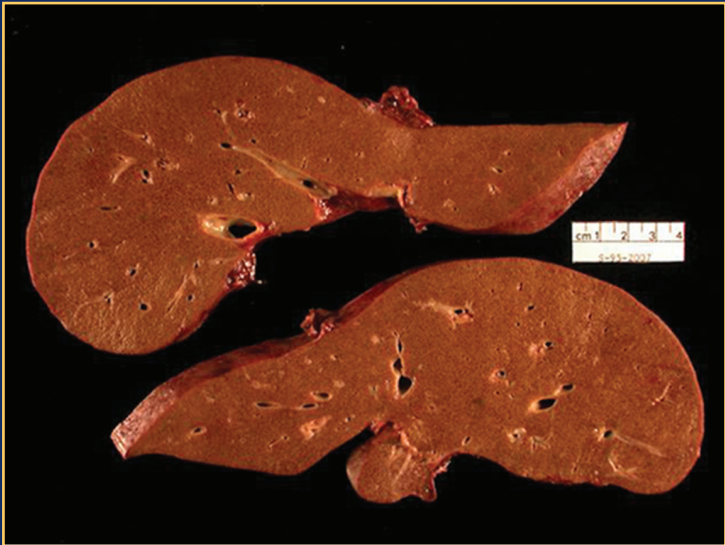
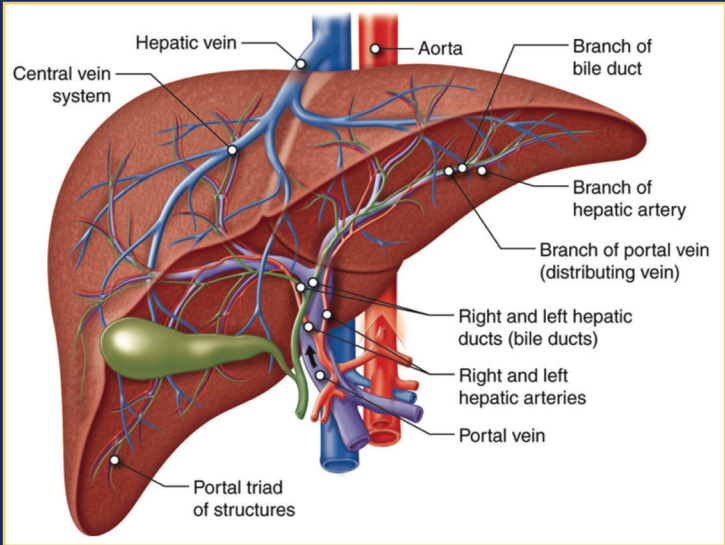




Liver Ultrasound for HBsAg-Positive Clients: Cirrhosis & Hepatocellular Carcinoma (HCC)

Normal Liver



Portal and hepatic veins branch throughout the liver. (Intrahepatic bile ducts are not visible on ultrasound.) The liver tissue has a smooth, **velvet-like echo texture** and a **smooth surface**, as in the central image below.

Scan Windows for the Liver



Epigastric longitudinal



Subcostal transverse

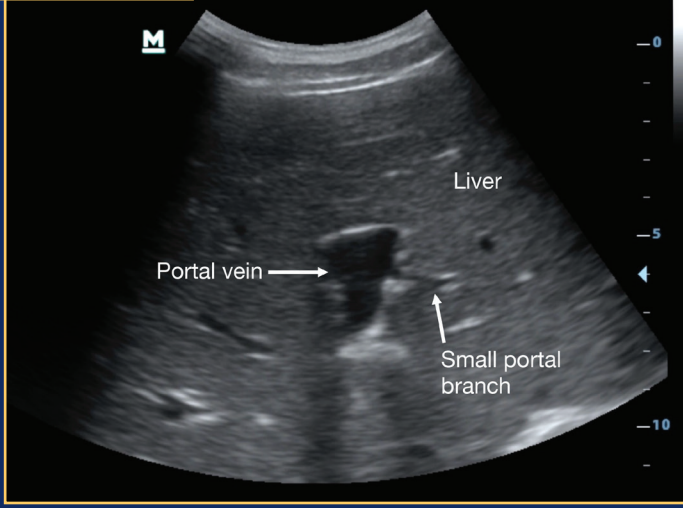
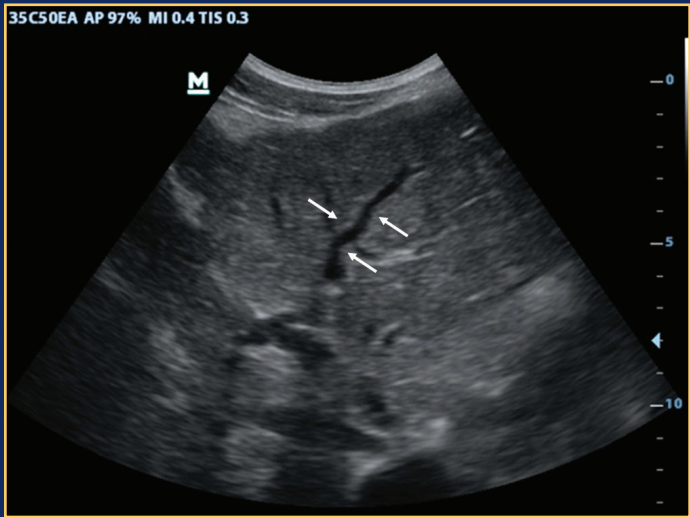
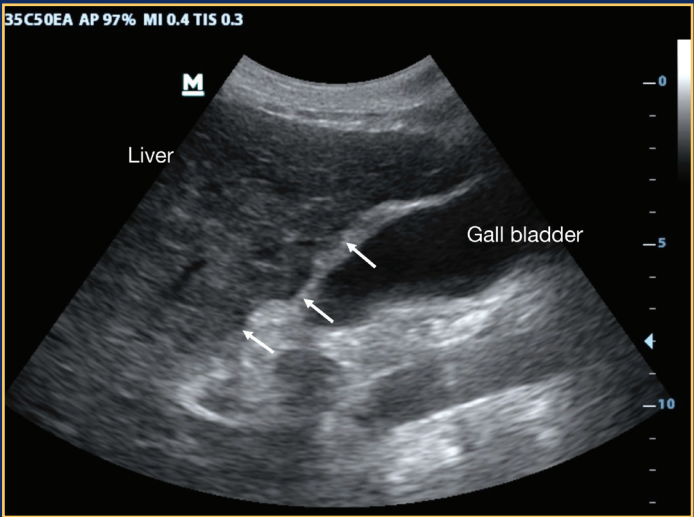
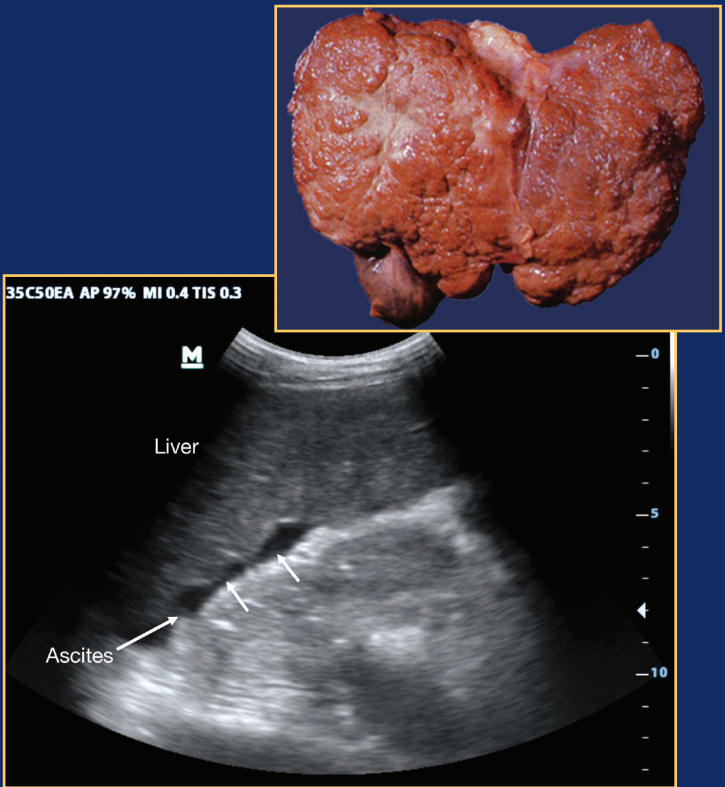


Transcostal

Cirrhosis

Liver tissue is replaced by **regenerative, fibrotic nodules**. Important ultrasound findings are:

- 1) **Irregular surface** due to bulging of the nodules—best seen when ascites is present
- 2) Small **vessels meandering** around the nodules, often even completely ‘compressed’—**amputated and rarefied**
- 3) **Coarse, mottled echo pattern** of the liver tissue
- 4) **Enlarged caudate lobe** and shrinking of the right liver lobe (due to changes in blood perfusion)

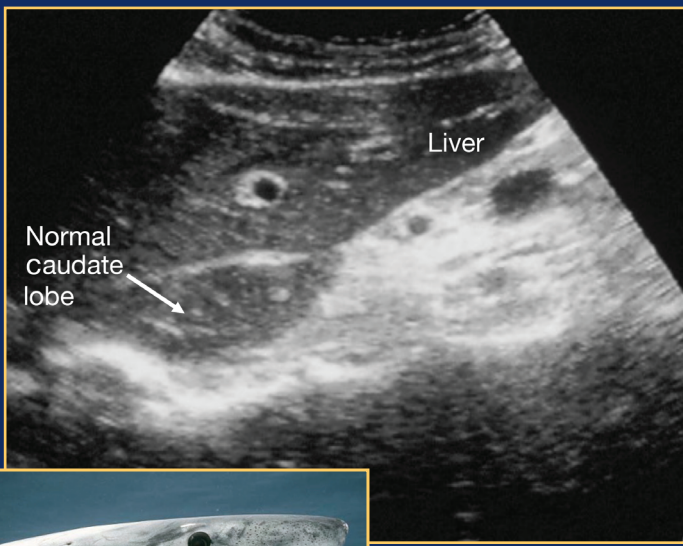
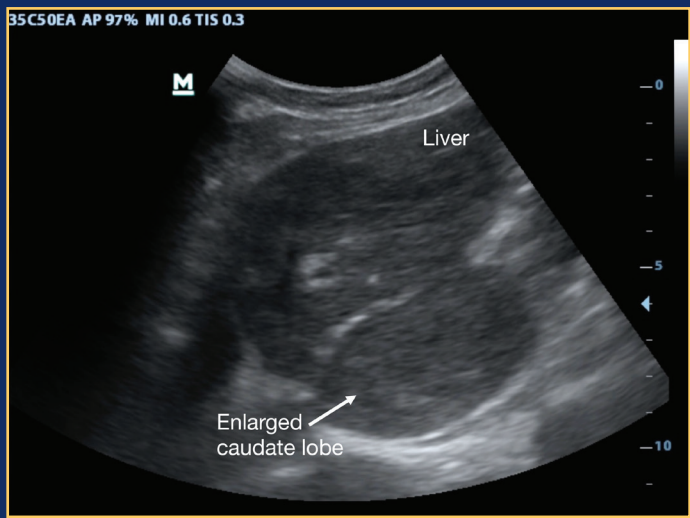
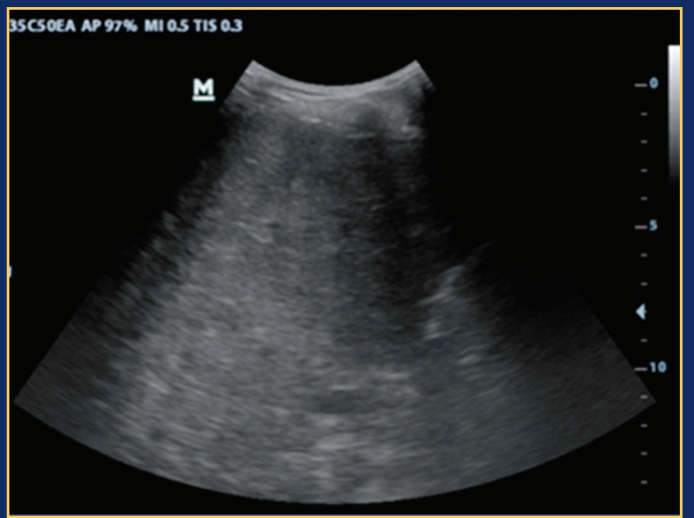
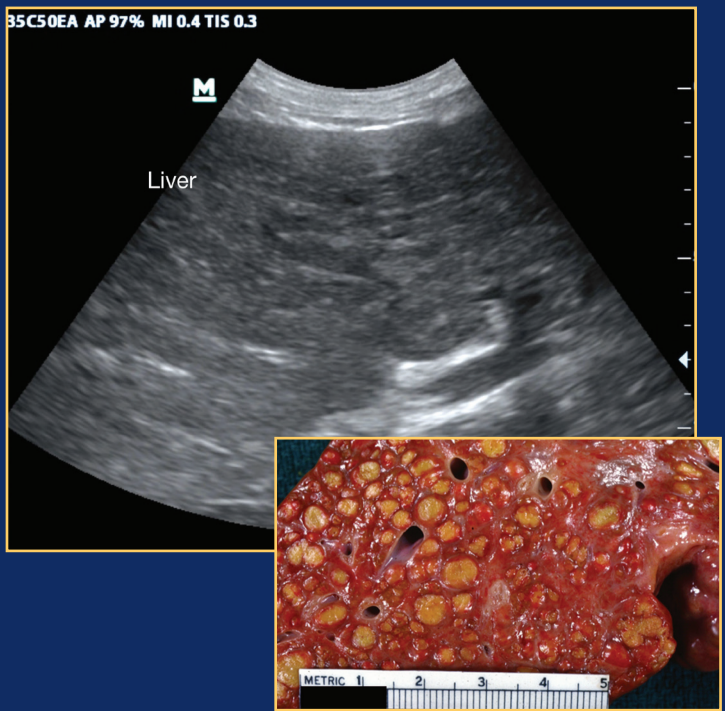


1) Nodular surface

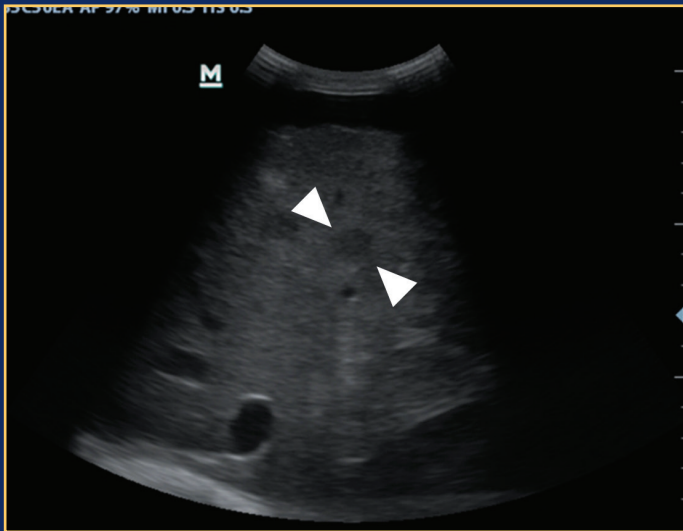
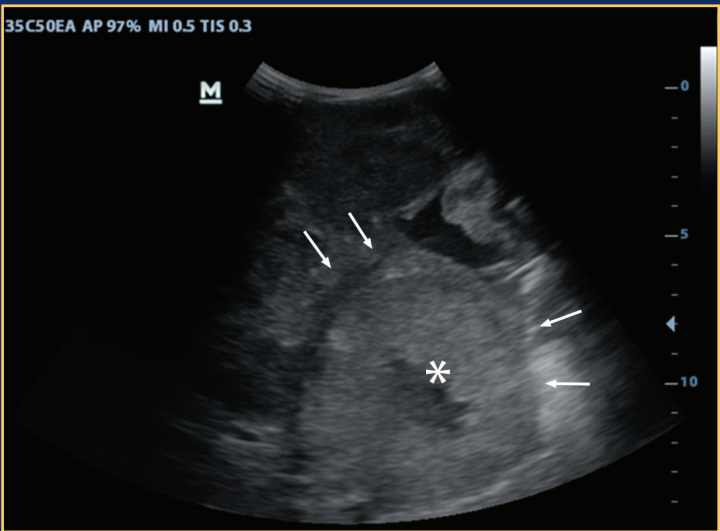
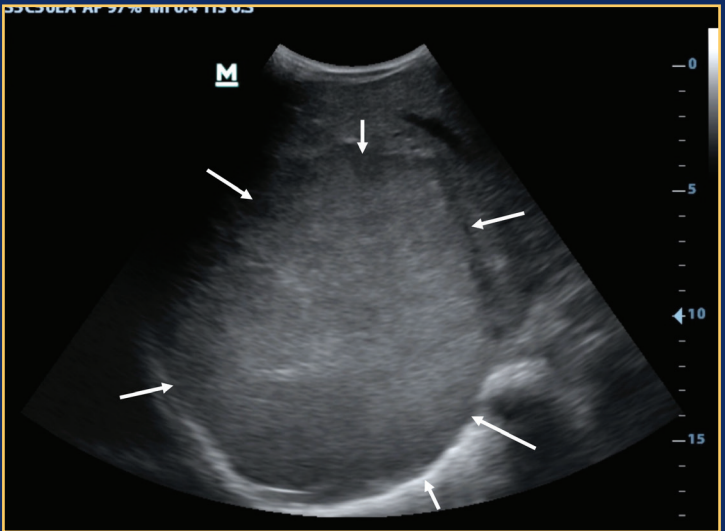
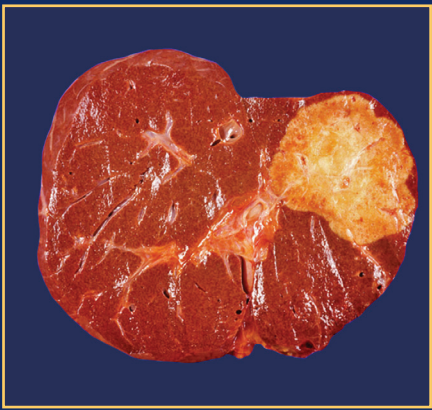
3) Coarse ‘salt and pepper’ texture

2) Amputated, meandering vessels

4) Enlarged caudate lobe



HCC



Often **single large liver tumours** with mixed echogenicity, resulting in a ‘**mosaic pattern**’. You may see a **hypoechoic halo** (arrows) and **necrotic central areas** (*). Small (<2 cm) HCCs are **hypoechoic nodules** (arrowheads). HCC is **often seen in cirrhotic livers**, but **also** with hepatitis B infection in normal livers.