

Aorta



Created by: Matevž Privšek, MD, Una Mršič, Sara Nikolić, Jan Hansel, MD
Revised by: assist. Gregor Prosen, MD, emergency medicine specialist, FEBEM
Medical Faculty, University of Maribor, Taborska 8, SI2000- Maribor, Slovenia



Ultrafest
M A R I B O R

*Ultrafest is an original idea from UC Irvine, kindly shared and supported in good spirit of open-access educational materials.
Kind acknowledgements to dr. J C Fox and dr. C Fischetti for support in setting up Ultrafest Maribor chapter.*

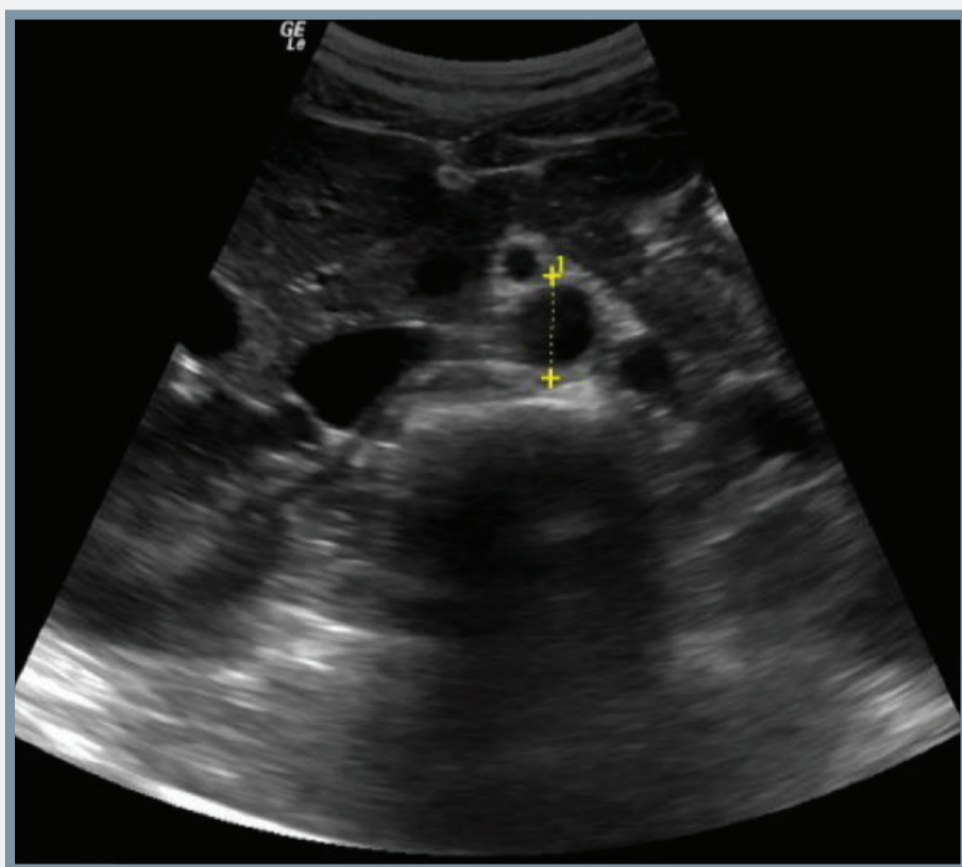
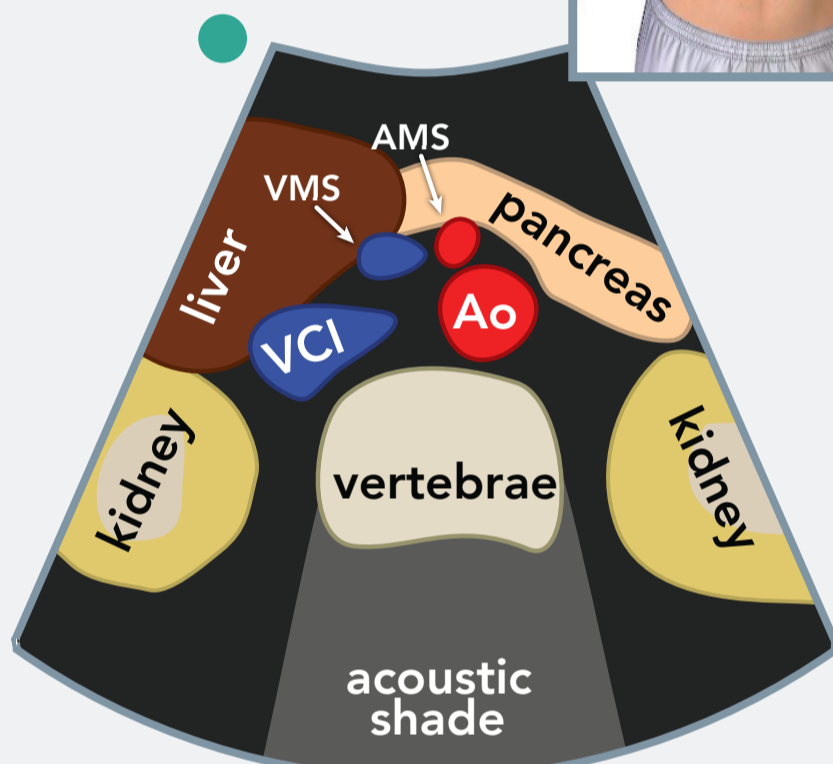
STATION GOALS

To examine the abdominal aorta and potential presence of an aneurysm.

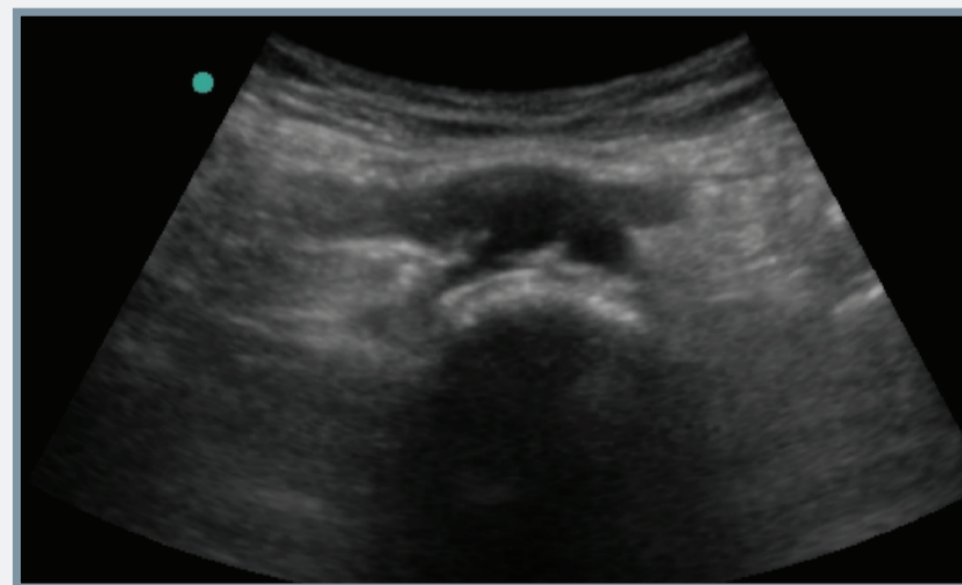
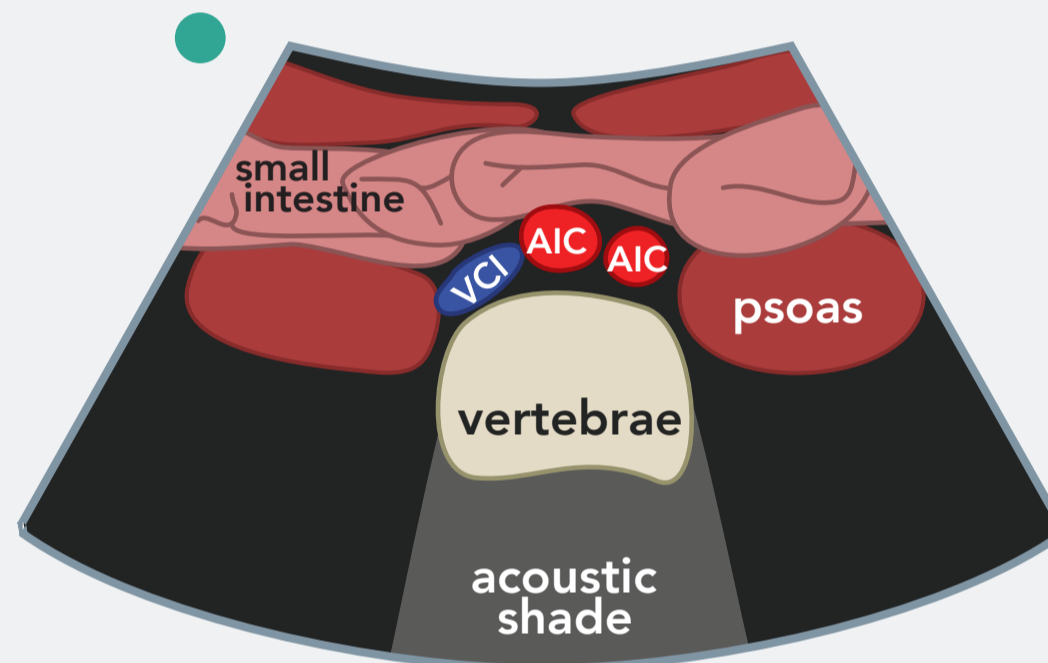
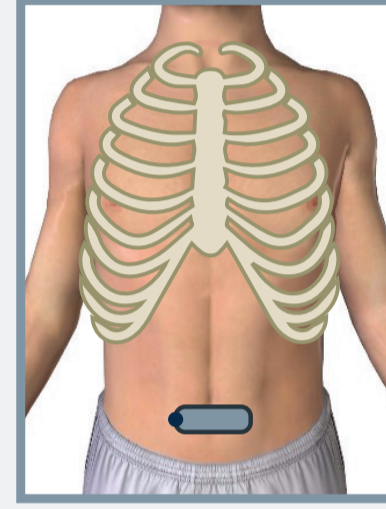
Probe: Convex array probe (5-3 MHz)

Patient body position: Supine

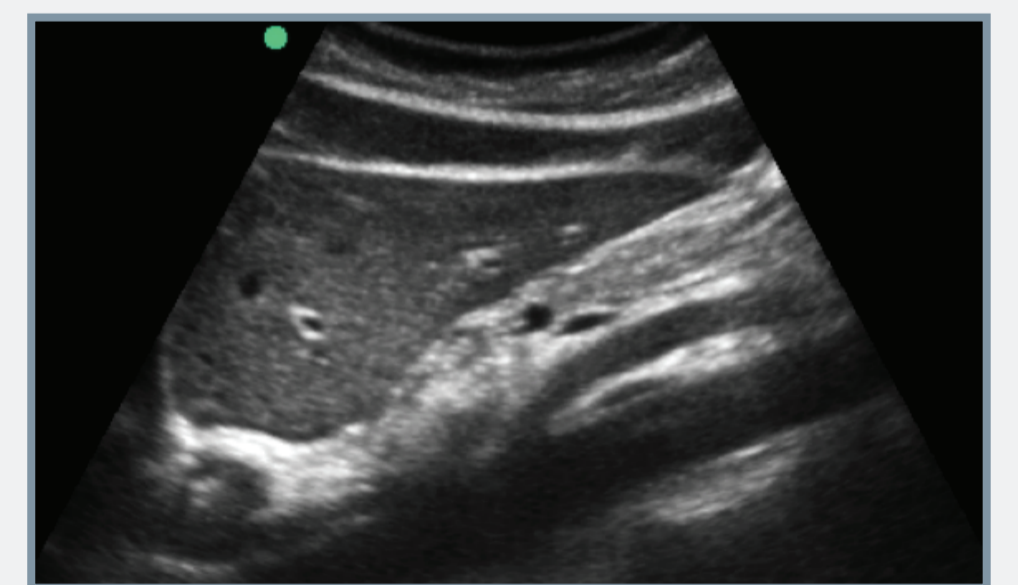
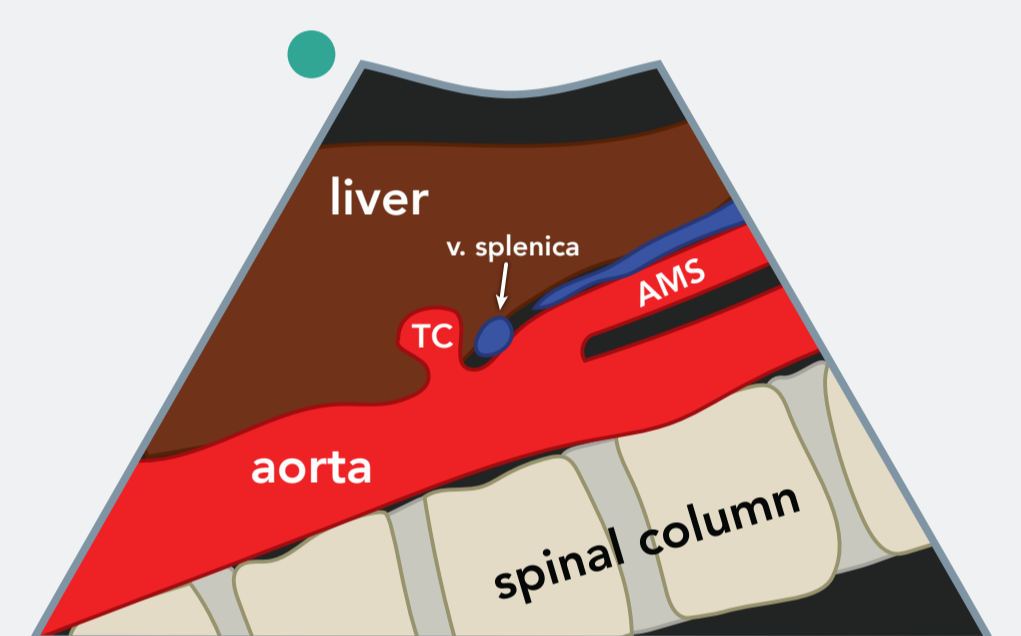
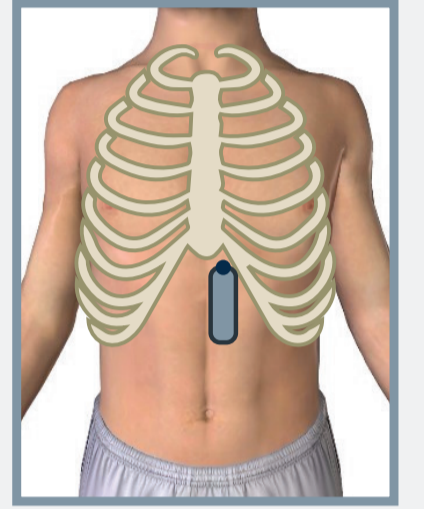
Aorta - transverse



Aorta - bifurcation



Aorta - longitudinal



VMS = v. mesenterica superior; AMS = a. mesenterica superior; VCI = vena cava inferior;
Ao = aorta; AIC = a. iliaca communis; TC = truncus coeliacus

US TECHNIQUE

We differentiate the aorta from the IVC by the fact that the hepatic veins are going into IVC and the IVC is continuing into the right atrium.

We follow the aorta from the xiphoid to the bifurcation.

We measure the cross section of the aorta at the widest part. The wall and potential thrombus must be included in the measurement.

Probe must be placed perpendicular to the aorta when measuring so we can avoid falsely higher measurement.

INTERESTING CLINICAL FACTS

The aneurysm is defined as the cross section of the aorta above 3.0 cm, the indication for an elective surgery is 5.5 cm.

Ultrasound has 98 % sensitivity and 99 % specificity when diagnosing AAA.

With US it is impossible to diagnose AAA rupture. We look for an aneurysm with suitable clinical picture.

The majority of vascular surgeons associations suggests preventive screening programmes for examining AAA for male smokers above 65 years.