



Sonographer Scanning Cheat Sheet: Abdominal Aorta Screening US

Procedure Overview: An abdominal aorta screening ultrasound assessment can be utilized to detect the presence, severity, and location of an abdominal aortic aneurysm.

Required Pre-Procedure Prep:

- NPO for 4 hours (recommended)
- Obtain patient verbal consent.
- Obtain patient and family history of cardiovascular disease and symptoms.
- Instruct patient to lie supine.

Proper Probe: Convex or sector probe with a frequency of 2.5 - 5 MHz that has tri-duplex capabilities.

Protocol for Abdominal Aorta Screening Ultrasound (76706)

*This protocol aligns with the Mindray I-Works protocol: **Imagen AAA Screening***

You may “Suspend” the protocol at any time to take additional images or handle pathology, then restart I-Works.

Cine Clips should be taken to help prove pathology and provide context for Remote Radiologists when appropriate. Please be mindful of not taking too many cine clips, just show what’s most important.

1. Prox Aorta Sag (above the SMA)
2. Prox Aorta Sag with A/P measurements (be sure to INCLUDE WALL in measurement)
3. Mid Aorta Sag (between SMA and Renal Arteries)
4. Mid Aorta Sag with A/P measurements (be sure to INCLUDE WALL in measurement)
5. Distal Aorta Sag
6. Distal Aorta Sag with A/P measurements (be sure to INCLUDE WALL in measurement)
7. Sag Rt Iliac
8. Sag Rt Iliac with A/P measurements
9. Sag Lt Iliac
10. Sag Lt Iliac with A/P measurements
11. Prox Aorta Trv (above SMA)
12. Prox Aorta Trv w/color
13. Prox Aorta Trv w/measurements (be sure to Include wall in measurements)
14. Mid Aorta Trv
15. Mid Aorta Trv w/color
16. Mid Aorta Trv w/measurements (be sure to include wall in measurements)
17. Distal Aorta Trv
18. Distal Aorta TRV w/color
19. Distal Aorta Trv w/measurement (be sure to include wall in measurements)
20. Distal Aortic Bifurcation/Rt and Lt iliac arteries
21. Distal Bifurcation w/color

If (AAA) Aneurysm Abdominal Aorta Seen:

- Transverse with and without width measurements x 2
- Sagittal with and without length and height measurements x 2
- Color flow Doppler in transverse and sagittal
- Note any internal debris and/or thrombus formation
- Any pathology cine loop for the reader to see in real time.
- Document pathology with and without measurement in three planes (Length, width, & AP) and with and without color Doppler.

Anatomy	Normal Measurements
Abdominal Aortic Aneurysm	>3 cm
Critical Abdominal Aortic Aneurysm (STAT case)	>5 cm or >4 cm with thrombus formation

Common Pathologies

- Abdominal Aortic Aneurysm: A large bulge in the vessel consisting of a dilation of all three walls of the artery measuring 50% larger than the normal proximal diameter or 3.0 cm in AP diameter.
 - Fusiform aneurysm: This is the most common aneurysm and appears as a symmetrical bulge around the circumference of the aorta.
 - Saccular aneurysm: Appears asymmetrical and one side of the aorta.
 - Pseudoaneurysm: Often visualized after a heart catheterization. Appears similar to a fusiform aneurysm; however, a pseudoaneurysm only bulges 1-2 layers of the vessel, not all three vessel layers.
- Aortic Dissection: The presence of an intimal flap that appears as a linear, hyperechoic structure separating the aorta into true and false lumens with bidirectional color flow. This is an emergent finding.
- Aortic Atherosclerosis: Plaque formation within the arterial lining of the vessel. If present, classify as one of the following and note texture, surface, and location.
 - Homogeneous: Soft plaque, uniform echo pattern
 - Heterogeneous: Complex echo pattern with multiple echoes and different densities
 - Calcified: High density echoes with posterior shadowing