Anatomy & Physiology

The abdominal aorta lies just left of midline in the body. The inferior vena cava (IVC) lies just to the right of that (the patient's right). Keep in mind when you are scanning a patient, the IVC location is the patient's right. ((When you're scanning you move your hand to the left.)

These vessels are the largest and most vital in the human body. The abdominal aorta carries oxygen-rich blood from the heart to the brain, organs, and extremities. Meanwhile, the IVC returns oxygen-depleted blood back to the lungs for reoxygenation.

The Nussbaumer Method: A less than 10-second ultrasound screening that evaluates both the abdominal aorta and the IVC. This technique is a core component of our free course.

Criteria

ADOM CRITERIA | AORTA

- See NADR Abstract that explains clearly why women's aneurysms rupture up to 10x more than men's. The NADR is also a more precise method to determine the prognosis of an Abdominal Aortic Aneurysm (AAA).

ADOM CRITERIA | IVC

- See Radiation Induced DVT Abstract that explains an additional cause of DVT besides immobility, trauma and blood clotting disorders.

Scan QR Code for more about ADOM Aorta & IVC Research

Why ADOM Criteria Makes a Difference

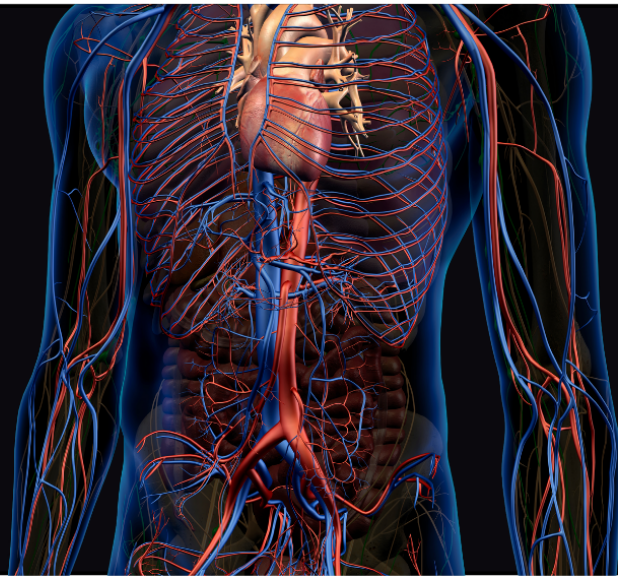
The NADR is more precise and allows for diagnosis specific to the patient - not a general, arbitrary diagnosis. The Radiation Induced DVT abstract acknowledges the previously undocumented reality that radiation causes DVT.

ADOM

Introduction to Diagnosis with Ultrasound

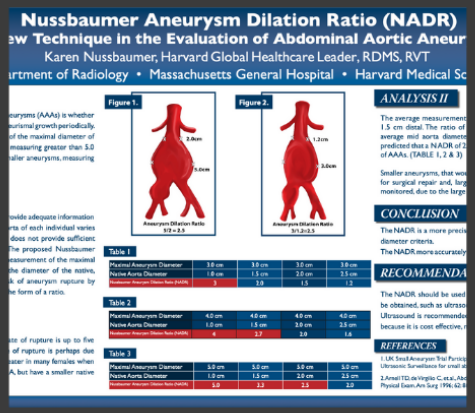
Disclaimer: This guide is for ultrasound awareness and educational purposes only. It is not a substitute for medical diagnosis or advice. Consult a licensed medical professional for evaluation and treatment.

Abdomen Vessels



Aorta & IVC Ultrasound

The Nussbaumer Method Aorta & IVC



In a sagittal plane, rest the curved probe at "home base", the xiphoid process. You should see the long tube stretching left to right across the screen. Left is the proximal (closer to the heart) Aorta and the Right is the distal (farther from the heart) aorta.

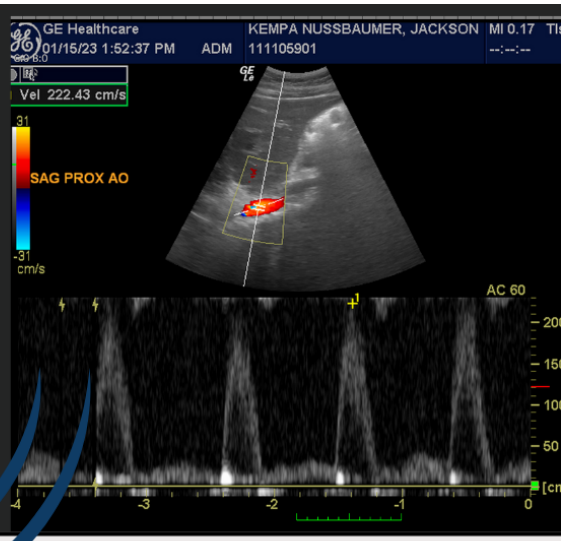
The goal is to understand the the proximal aorta is normally larger than the mid aorta and the mid aorta is normally larger than the distal aorta. The proximal aorta usually measures 2-2.5cm. The mid aorta, 1.5-2cm and the distal 1-1.5cm.

Aorta Scan Goal: In under 10 seconds, from the base of the sternum, "rock" the probe with the beam towards the head and then towards the feet to see the entire aorta.

Fan slightly left to visualize the sagittal IVC.

Learn more about the aorta & ivc

#adomacademy



Pathology

Before we pick up the ultrasound probe, we need to understand what we might see.

When examining the aorta we assess for:

- **Aneurysms:** Most AAAs occur at the distal aorta, just before the Iliac bifurcation. Vascular disease commonly occurs at areas of bifurcation.
- **Tears:** Aortic dissections can be challenging to see, but if there are tears inside the vessel, you can prove its a dissection by demonstrating the abnormal flow.
- **Plaque:** Atherosclerotic plaque is not uncommon to see in the aorta. It will look bright white and have shadows.

When examining the IVC we assess for:

- **DVT**: Which can be acute - occlusive, subacute-non-occlusive, or chronic residual. Sometimes it can be loosely attached and "mobile."