



CardioRisk Laboratories ABI Protocol

CardioRisk Laboratories ABI Exam Digital Form is a google form for data entry during patient exams. This form will be sent via email or text to CardioRisk Vascular Technologists for use in the field. The form can be saved to the home screen on smartphones or on the desktop of a laptop computer. The purpose of this form is to assist with exams and to streamline data entry/processing for reporting purposes.

Equipment Needed:

- SonoScape Ultrasound Unit
- Smartphone OR Laptop computer with internet connection
- Ultrasound gel
- Paper towels or tissues
- Handheld, continuous wave doppler device
- 12cm blood pressure cuff
- 10cm blood pressure cuff
- *Optional*- rolling stool or chair for the ultrasound unit that can be moved into position and out of the way as needed

Performing the Exam:

1. Enter patient information on the ultrasound unit just as you would for CIMT or AAA exams.
2. Open the CardioRisk ABI Exam Digital Form using a smartphone or laptop computer with internet connection. *(Smartphones should be placed in "do not disturb" mode to avoid interruption of the exam.)*
3. Enter the patient name *(Last,First)*
4. Briefly explain the exam to the patient and Instruct them to remove any obstructive clothing and shoes and socks. *(as the patient prepares for the exam, enter responses to medical questions on the digital form.)*
5. Verify and enter the patient DOB
6. Select the ordering physicians name from the drop-down menu. If not listed, select "other". (If the physician's name is not an option, please inform CardioRisk office staff at the end of day so the name can be added to the options for future exams)
7. Ask the patient each question and record responses.
**** Keep in mind any of the contraindications for the exam and adjust the exam as needed to prevent any harm to the patient. (Breast surgery, stenting of extremities, dialysis access)*
8. Upon completion of medical questions, place the 12cm cuff on the right arm and have them lay supine with legs uncrossed.
9. Using the handheld, continuous wave doppler device, obtain the right brachial pressure on the radial artery at the wrist or at the antecubital space and record the result on the digital form in the appropriate field.
10. Remove the cuff and drape it across the patient's abdomen for the time being.
11. Apply the 10cm cuff to the right lower extremity just above the ankle. (placement with the inflation hose toward the knee will help reduce the chances of the hose being in the way of the handheld, continuous wave doppler device when obtaining the ankle pressure.)





12. Using the handheld, continuous wave doppler device, obtain the right ankle pressure on the PTA or DPA or ATA and record the result on the digital form in the appropriate field.
13. Move the 10cm cuff to the left lower extremity, just above the ankle. (placement with the inflation hose toward the knee will help reduce the chances of the hose being in the way of the handheld, continuous wave doppler device when obtaining the ankle pressure.)
14. Using the handheld, continuous wave doppler device, obtain the left ankle pressure on the PTA or DPA or ATA vessel and record the result on the digital form in the appropriate field.
15. Remove the 10cm cuff.
16. Using the ultrasound unit, visualize the Right PTA or the DPA or the ATA vessel with color doppler and obtain the best quality possible spectral waveform. Optimize the image for depth, angle of color box and sample gate. Optimize the spectral tracing for baseline, scale, and gain. Turn auto trace on. Annotate appropriately and save the image.
17. Repeat step 16 on the Left lower extremity.
18. End the exam on the ultrasound unit.
19. Place the 12cm cuff on the left arm.
20. Using the handheld, continuous wave doppler device, obtain the left brachial pressure on the radial artery at the wrist or at the antecubital space and record the result on the digital form in the appropriate field.
21. Remove the 12 cm cuff.
22. The final entry on the digital form is Exam performed by, select your name, and then submit the form. If any field(s) has been missed, you will be prompted to complete the remaining entries before being able to complete the exam.
23. At the completion of the exam, have the patient put their footwear and any removed articles of clothing back on.
24. At the end of the day, uploading of the ultrasound images should follow the same protocol as for CIMT or AAA exams. The digital form will automatically populate a spreadsheet accessible to the staff at CardioRisk Laboratories home office immediately after each entry is submitted.

(Note: Order of steps 8 - 21 may be altered to achieve the most efficient exam depending on the exam room set up / technologist preference. As written in this policy, the exam would move around the patient in a counterclockwise manner and avoid moving from side to side)

