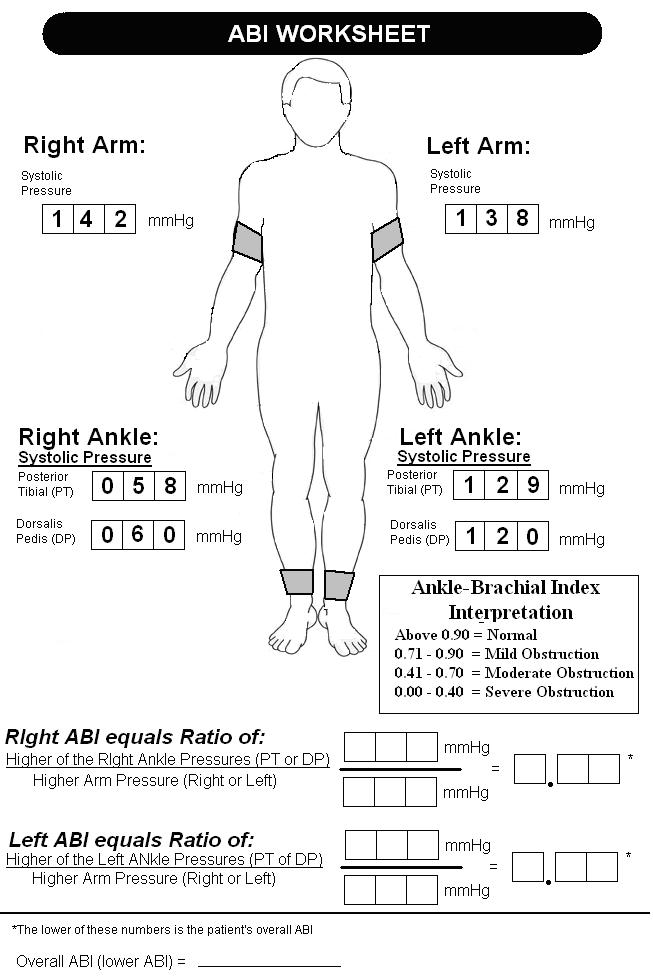
Part IV: Getting Help

John finally agreed to go in for simple testing. The report from his ABI testing is found below:



1. Compute John Jones’ ABI.
2. Copy the chart of normal and abnormal ABI values into your laboratory journal.
3. Work with your partner to analyze your findings, discuss treatment and answer the following:

* What do the values for ABI imply about John’s legs?
* What is most likely occurring inside John’s leg to cause this increase in peripheral pressures? How does this relate to smoking?
* What is arteriosclerosis? What is the difference between arteriosclerosis and atherosclerosis?
* How can atherosclerosis be linked to PAD?
* What other tests can be performed to confirm this diagnosis?
* If tests confirm that John has a clot in his leg, what treatment options may help relieve his pain and save his leg?

1. Visit the Howard Hughes Medical Institution BioInteractive site at <http://media.hhmi.org/hl/98Lect1.html> and view the “Of Hearts and Hypertension: Blazing Genetic Trails – Lecture 1” video webcast. Once the video begins playing, move the cursor to fast forward the video to 34:20. You will watch the clip from this point until 40:00. The video clip shows damage to blood vessels in the heart. How can what you saw be applied to the blood vessels of the leg?
2. Work with your team of four to design a way to show PAD on your Maniken®. Also, use your model to demonstrate a medical intervention that may help treat this condition.
3. Share your Maniken® medical intervention with the class.

Conclusion

1. What is your ABI? What does this value tell you about your risk of peripheral artery disease?
2. Explain how PAD might impact other body systems.
3. How do the chemicals in smoke relate to the development of atherosclerosis?
4. Why do you think diabetics are also at increased risk for PAD?
5. Explain why untreated PAD can lead to the loss of a leg. Make sure to mention the specific arteries of the leg.
6. Explain how the endocrine system and the kidneys help play a role in regulating blood pressure.