Tammy Foreman

Lab 11

11/21/2023

Title: Cardiovascular Measurements

Purpose: See how blood pressure is affected by sitting or standing using a blood pressure cuff with a sphygmomanometer and stethoscope.

Procedure:

1. Wrap the pressure cuff of the sphygmomanometer snugly around the upper left arm of your lab partner. Your lab partner should assume a relaxed, sitting or supine position.
2. Place the stethoscope securely over the brachial artery. Close the pressure valve and begin pumping up the rubber ball.
3. You will begin to hear the arterial pulse as you pass the diastolic pressure. Continue pumping until the pulse is not heard, approximately 10 mmHg above your partner's normal systolic pressure. The brachial artery is now totally occluded.
4. Slowly open the pressure valve and listen for the pulse sounds to reappear as the pressure drops. These are known as Korotkoff sounds.
5. The first sound heard signals the systolic BP. Record this value from the scale.
6. The sound will become louder as the pressure drops until it finally starts to become muffled. Record the pressure at which the sound vanishes. This signals the diastolic BP. Record your blood pressure as systole/diastole.

7. Alternate with your lab partner and repeat these procedures.

8. Next, measure the BP of each of you immediately upon standing. (NOTE: be sure to have your cuff inflated prior to standing, so that you can begin to release pressure immediately upon standing.)

9. Lastly, measure the BP three minutes after standing. Record these values for your use and on the chalkboard.

10. Discuss the orthostatic response in terms of the receptors used and the effects of postural change. Include any limitations to obtaining reliable results.

Results:

	Lily	Tammy
Sitting	125/70	120/70
Standing	125/70	120/70
3 mins after standing	90/70	110/70

Discussion: I really enjoyed this lab. I think that manual blood pressure checks are the most accurate and give great results. It was interesting to see how both my lab partner and I had the same diastolic number each time.

Conclusion: For Lab 11 my lab partner and I used a manual blood pressure cuff and stethoscope to determine our blood pressures in a sitting position first followed by standing, then three minutes after standing. While our diastolic number was the same each time our systolic was

different from each other. The BP results remained the same each time until we took our BP's three minutes after standing, showing how