

Pulse and Blood Pressure

Student Data Log

PULSE

Procedure

1. Using your index and middle fingertips, find the distal radial pulse on your teammate. This will be found on the thumb side of the wrist with the palm facing up. If you cannot find this pulse, gently find the carotid artery in your partner's neck.
2. Count how many pulsations you feel in fifteen seconds.
3. Estimate the pulse rate by multiplying this number by 4. Pulse rate is reported as pulses per minute.
4. Record the results in the chart below.
5. Next, time your partner as he does jumping jacks for 30 seconds.
6. When 30 seconds is up, find your partner's radial pulse and count the number of pulsations you feel in 15 seconds.
7. Estimate the pulse rate by multiplying this number by 4.
8. Record the results in the chart below.
9. Repeat the instructions 1 – 7 on yourself.

	At rest	After exercise
Student 1:		
Student 2:		

Questions

1. Why do you think the pulse rate increases after exercise.
2. Why do you think pulse rates are not the same for every person.

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BLOOD PRESSURE

Procedure

1. Carefully place the blood pressure cuff around your teammate's upper arm about two centimeters above the elbow.
2. The tube that inflates the cuff should be at the bend of the elbow on the inside of the arm.
3. Clean the earpieces of the stethoscope with an alcohol swab, then place them in your ears.
4. Pump the valve until the sphygmomanometer reads 180 mm Hg. NOTE: Pulsation will not be heard through the stethoscope when the cuff pressure is below the diastolic or above the systolic pressure. (Either the blood is flowing too freely or the blood flow is constricted.) Release the valve slowly and listen carefully for the first pulsating sounds. Note the number indicated by the meter at this point. This is the systolic pressure.
5. Keep slowly releasing the valve and note the number at the point where you no longer hear any sounds. This is the diastolic pressure.
6. Report the blood pressure as the systolic number over the diastolic number. For example: 110/68.
7. Finish letting the air from the cuff by completely releasing the valve.
8. Record the results in the chart below.
9. Time your partner as they do jumping jacks for 30 seconds.
10. Immediately following the 30 seconds of exercise, replace the blood pressure cuff on your partner's arm and take their blood pressure.
11. Record the results in the chart below.
12. Repeat the results

	At rest	After exercise
Student 1:		
Student 2:		

Questions

1. What happened to your blood pressure after exercise? Why?
2. How might someone lower his or her blood pressure?