

PULSE AND BLOOD PRESSURE LAB 2013

Name: _____

Purpose of this investigation is to become more familiar with the heart and blood pressure. For the following Lab read the instructions carefully and use the Exercise Science Text Book as a resource to answer that enhances the investigation and knowledge surrounding this topic. You can do this lab with a partner and hand in only one lab per group

A. Pulse

Pulse at rest



Radial Pulse



Carotid Pulse

1. Place your first and second finger in the groove between the radius bone (on thumb side) and the tendon at the wrist and press lightly.
2. Count the number of beats in 10 seconds.
3. Multiply this by 6 to get the number of beats in 60 seconds (this # your pulse).

Beats / 10 seconds	Pulse (beats / 60 seconds)

Pulse after EXERCISE

1. Exercise moderately for 1 minute (run upstairs, pushups, jumping jacks, etc.).
2. Immediately take your wrist pulse.

Beats / 10 seconds	Pulse (beats / 60 seconds)

Discussion Questions

1. Was your pulse higher or lower than the class average? Suggest reasons for this.

2. Why can the heart be detected as a pulse?

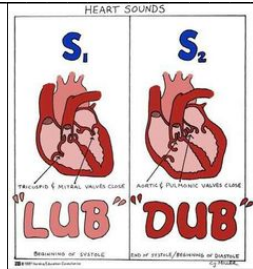
3. Which artery is felt when taking the pulse at the wrist?

4. Which artery is felt when taking the pulse at the neck?

5. Would wrist or neck pulse be felt first following a heartbeat? Why?

B) HEART SOUNDS

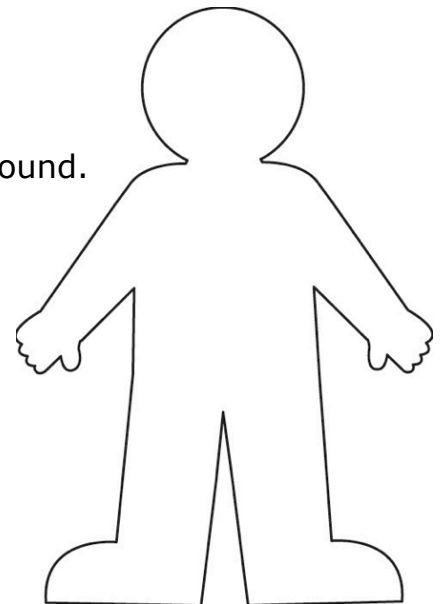
Heart Sounds at REST



1. Place a stethoscope on your own chest and listen for a heart sound. Locate the area where the heart sounds are loudest.
2. After 1 min. of moderate exercise, (run upstairs, pushups, jumping jacks, etc.). listen to your heart sounds again.

Discussion Questions

1. Indicate on the diagram where you located the clearest sound.

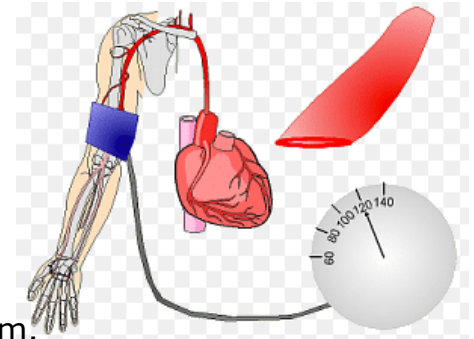


2. Did the sound of your heartbeat change after exercise? Describe what differences you heard.

3. What causes the characteristic heart sounds? (lub dub)

4. What causes heart murmurs?

C) BLOOD PRESSURE



BP at REST

1. Make sure arm is wrist-up and at rest.
2. Roll sleeves up and place cuff just above elbow.
3. Place stethoscope bell under cuff on inner surface of arm.
4. Pump cuff to about 150-160mm Hg then slowly release air while listening.
5. First thuds heard = Systolic Pressure.
6. Last thuds heard = Diastolic Pressure.
7. Do not move arm during reading.
8. Immediately release air after reading.
9. Check you blood pressure with automated BP machine

Systolic Pressure	Diastolic Pressure	BP (systolic / Diastolic)	BP automated (systolic / Diastolic)

BP after EXERCISE

1. Exercise moderately for 1minute (run upstairs, pushups, jumping jacks, etc.).
2. Take your BP immediately after exercise

Systolic Pressure	Diastolic Pressure	BP (systolic / Diastolic)	BP automated (systolic / Diastolic)

Discussion Questions

1. What was the effect of exercise on BP?

2. How does the body benefit from this change in BP during exercise?

3. What is considered a normal average adult BP?

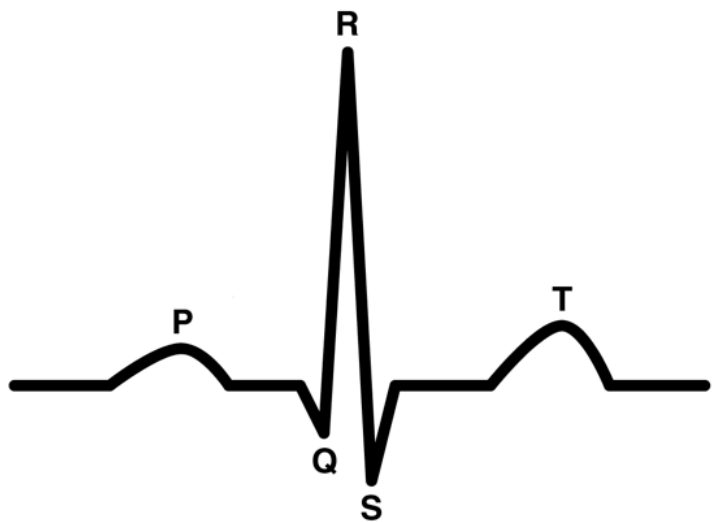
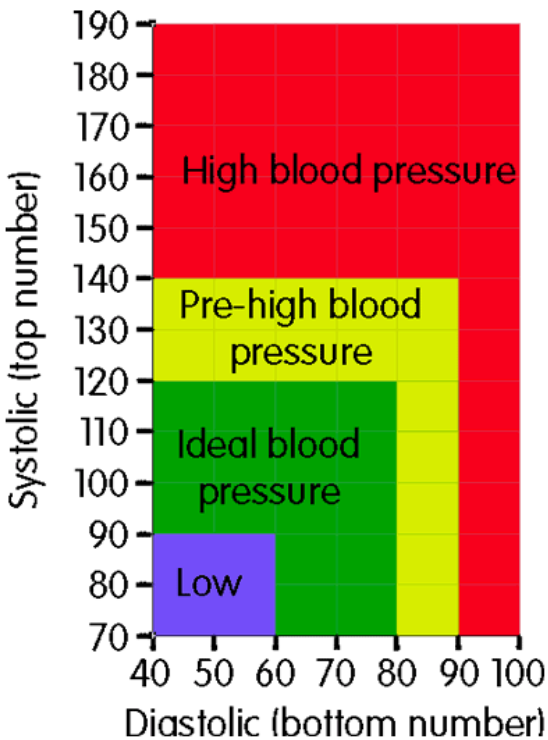
4. How would the BP of an anxious patient visiting a doctor be different than if the patient is calm?

5. Would BP rise or fall if a patient suffers an aortic aneurism?

6. In atherosclerosis, plaque builds up in the arteries. How would this affect BP? Is this an example of hypertension or hypotension?

7. Examine the figure below. (PQRST wave) Which part of the wave corresponds to:
 - atrial contraction? _____
 - ventricular contraction? _____
 - ventricular recovery? _____

Blood pressure chart for adults



Agateller for Wikipedia
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