Blood Pressure Lab Names _____

Sphygmomanometer – the device used to measure ones blood pressure. **SEE DIAGRAM ON PAGE TWO.**

Blood pressure is the pressure exerted against the inner walls of arteries both while the ventricles are contracting (pushing a wave of blood away from the heart) and when the ventricles are relaxing and refiling with blood coming from the atria.

Blood Pressure = systolic pressure
diastolic pressure

Systole – is the pressure exerted on the artery walls when the ventricle are **contracting** (and pushing blood away).

Diastole – is the pressure exerted on the artery walls when the ventricle are **relaxing** (and refilling).

Typically, we measure our blood pressure to check for blood flow issues. These include but are not limited to, blockages in our coronary arteries (resulting in high blood pressure) and leaky vein valves (resulting in low blood pressure).

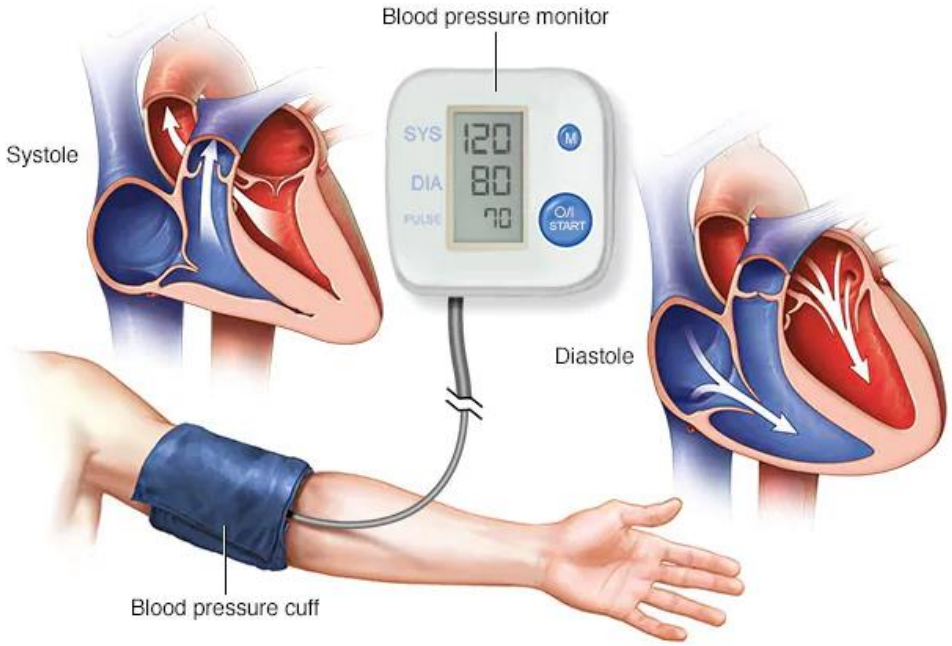
If the blood pressure is consistently high, doctors will often order an angiogram used to examine the number and severity of the coronary blockages. Treatment can then include angioplasty, a stent insertion, or in some cases open heart coronary bypass surgery.

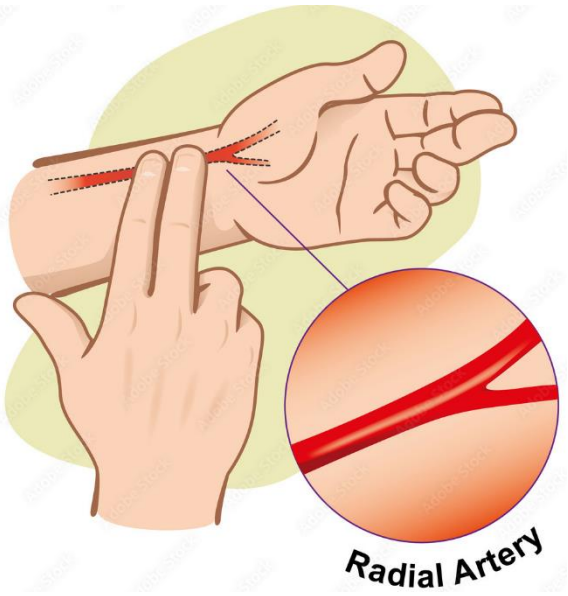
	Resting (Sitting in Chair)		**Moderate Activity (Immediately after walking briskly for 2 laps)**		**Higher Activity (Immediately after skipping rope for 45 seconds)**	
Names of Group Members	**BP**	**HR**	**BP**	**HR**		

Find your pulse using your radial artery located in your lower arm wrist area. **SEE DIAGRAM ON PAGE TWO.**

Use the timer on your phone to count pulses (or heartbeats) in 15 seconds. Record in the chart below as beats per minutes. BE SURE TO TRY TO FIND THE PULSE OF ANOTHER MEMBER OF YOUR GROUP.

	Resting (Sitting in Chair)		**Moderate Activity (Immediately after walking briskly for 2 laps)**		**Higher Activity (Immediately after skipping rope for 45 seconds)**	
Names of Group Members	**Beats in 15 seconds**	**Beats per minute**	**Beats in 15 seconds**	**Beats per minute**	**Beats in 15 seconds**	**Beats per minute**





Analysis Questions (answer on loose-leaf and submit one copy per group)

1. What is a healthy resting BP for a young adult like yourself?
2. What is the clinical name for **high** BP?
3. List a few causes of **high** BP.
4. What is the clinical name for **low** BP?
5. List a few causes of **low** BP.
6. What traumatic event can be caused by persistently high BP?
7. List the three potential procedures, from least to most invasive, used to treat blocked coronary arteries.
8. What is a healthy resting heartrate for adults?
9. What is the formula for calculating the average maximum heartrate based on age?
10. A sign of cardiovascular fitness is having a low resting heartrate. Without researching an answer, athletes from which sport have the lowest resting heartrates (hint: these athletes have tremendous cardiovascular capacity and are known for their quick recovery times…and compete in colder climates)?
11. Which of the following BPs is typically more associated with a potentially dangerous cardiovascular issue? a. 180/80 b. 140/120
12. Why do we have to locate an artery to find and take someone's pulse (why not simply use a vein)?
13. List some of the typical symptoms of a heart attack that are common to both men and women.
14. List some of the typical symptoms of a heart attack typically unique to males.
15. List some of the typical symptoms of a heart attack typically unique to females.
16. What is the difference between a heart attack and a cardiac arrest?
17. What are some symptoms of cardiac arrest?
18. How would a heart attack be treated by a medical team in a hospital?
19. How would a cardiac arrest be treated by a medical team in a hospital?
20. What are some contributing risk factors that would increase the chances of having a heart attack.