

Pulse and Blood Pressure

Pulse

Place one arm palm-up on a table or in your lap.

Locate the radial artery among the tendons of the wrist (thumb side).

Place three fingers of your other hand on the radial artery (Do not squeeze).

Count the number of beats in 60 seconds. This is also the *heart rate*.

Blood Pressure

1. Equipment: Obtain a stethoscope and sphygmomanometer. Clean the earpieces of the stethoscope with alcohol swab.
2. *Find the brachial artery.*
Rest the subject's elbow and forearm comfortably on the table, palm up. The artery is above the elbow crook, just medial to the biceps muscle tendon. By pressing gently (do not squeeze) you may be able to feel it pulsing.
3. *Put on the stethoscope:* The earpiece tubes curve slightly and should point forward when inserted.
4. *Place the blood pressure cuff on the subject's arm.* (Do not inflate it yet!) The lower edge of the cuff should be 5 cm. above the crook of the elbow! The arrow on the cuff should point to the brachial artery. The rubber tubes should **not** lie over the artery.
5. *Inflate the cuff.* Tighten the valve on the bulb and pump until the mercury/pressure reading, reaches 160 mm.

Never leave the cuff inflated for more than a few seconds. If necessary, release the pressure briefly and then re-inflate!

Open the valve slightly and let the mercury drop about 3 mm per second.

6. Listen for the following sounds and record the corresponding pressures.
 - A. *Systolic pressure (Ps):* first appearance of thumping or thudding sounds. The mercury or needle may begin bouncing at this point.
 - B. *Diastolic pressure (Pd):* Disappearance of sounds.
7. Write these figures as a blood pressure (BP) reading.

BP = Ps/Pd. E.g., 120/80 or 112/69, or 147/113.

Name: _____

Results of Pulse/Blood Pressure Lab

Data on yourself;

Pulse (heart rate at rest: _____ BPM

after climbing 2 flights of stairs: _____ BPM

Time required to return to normal: _____ minutes

Blood pressure seated at rest: _____

Data on Experimental subjects

	PULSE	BLOOD PRESSURE
Effects of exercise		
Seated at rest	_____	_____
Immediately after exercise	_____	_____
Effects of posture		
Seated at rest	_____	_____
Immediately after suddenly lying down	_____	_____
After lying down for 3 minutes	_____	_____
Immediately after suddenly standing up	_____	_____
After standing for 3 minutes	_____	_____