Blood Pressure Testing Protocol

This protocol is prepared for use with a mercury sphygmomanometer.

- The client is seated with elbow slightly flexed and relaxed on a table.
- Loosen the sphygmomanometer control valve to release air retained in the bladder.
- Wrap the cuff firmly around the arm, level with the heart.
- Place the stethoscope bell below the antecubital space over the brachial artery.
- Close the control valve and quickly inflate the cuff pressure to approximately 180 mm Hg (160 mm Hg in most adults).
- Slowly release the pressure at about 2-3 mm Hg/sec, listening for the five Korotkoff sounds.
- Record the pressure at which the first thud is heard (1st sound) while continuing to release the pressure.
- The sound will become louder (2nd), then dull (3rd), and muffled (4th), and disappear completely (5th).
- Record the pressure for the fifth sound.
- Deflate the cuff completely and allow one to two minutes before repeating.
- If the values vary greatly, repeat until they are consistent.

The upper value is called the systolic pressure. It shows the pressure in the arteries when the heart is forcing blood through them. The lower pressure value is called the diastolic pressure. It indicated the pressure in the arteries when your heart relaxes. The systolic pressure can vary from 90 mm Hg to 240 mm Hg and the diastolic pressure can vary from 60 mm Hg to 140 mm Hg. Blood pressure is measured in millimetres of mercury which is written as mm Hg.

A client's blood pressure can vary by large amounts, depending on what is being done. Standing up, exercising or anxiety all cause an increase in blood pressure. Blood pressure may vary by 30 to 40 mm Hg systolic with similar proportionate changes in diastolic pressure over the course of a single day. When blood pressure is assessed in an ongoing program it is important to have it measured under the same conditions every time.