



## Sprague Rappaport and Aneroid Sphygmomanometer Instructions

Model # 330 (Sprague Stethoscope and Sphygmomanometer Set)

Model # 217 (Sphygmomanometer only, Stethoscope sold separately)

### What is Blood Pressure?

Blood Pressure is a measurement of the pressure of the blood flowing against the walls of the arteries. Arterial blood pressure is constantly changing during the course of the cardiac cycle. The highest pressure in the cycle is called the *systolic blood pressure*. The lowest is the *diastolic blood pressure*; the both readings are necessary to enable you to evaluate the status of your blood pressure. Many factors such as physical activity, anxiety, or the time of day, can influence your blood pressure. Blood pressure is typically low in the morning but high from afternoon to evening. It is lower in the summer but higher in the winter.

### What is normal blood pressure?

Blood pressure varies from individual to individual and is dependent upon a number of factors, such as age, weight, physical condition of gender. The classic normal reading for an adult between the ages of 18 and 45 is 120/80. Remember, only your physician is qualified to determine whether the readings you obtain are normal for you.

### How to measure the blood pressure?

#### 1. Relax yourself and adjust to a proper position

- It is very important that the person whose blood pressure is being taken is relaxed and sitting comfortably.
- Keep arm being measured at heart level. Arm extended but not too tense or stiff. Rest arm on a flat surface, such as a desk with the left palm facing upwards. Keep arm being measured still.

#### 2. How to put on the velcro cuffs and chestpiece

- Place the cuff 2-3cm above the bend of the elbow on the naked left upper arm; Close the cuff by means of the velcro closure. Cuff should be snug,

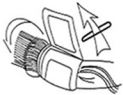


but not too tight, One or two fingers should fit between cuff and arm. *Never place cuff over article of clothing*

- For cuff with metal D-shaped ring, pull the free end of the cuff through the D-ring and close the cuff by means of the velcro closure.

- In units intended for home use, the diaphragm of the chestpiece

of the stethoscope integrated into the cuff must be placed above the brachial artery.



#### 3. Inflating the cuff



- Close the air valve on the bulb by turning the screw clockwise. *Do not over-tighten.*
- Squeeze the inflation bulb with the

hand you used to at a steady rate until the needle on the gauge points 30mmHg above your normal upper-systolic-pressure value. If you don't know it, inflate just to 200mmHg.



#### 4. Systolic blood pressure reading-upper value-

Slowly open air valve by turning screw counter-clockwise and hold stethoscope chestpiece over brachial artery. *Proper deflation rate* is vital for an accurate reading so you should practice and master a recommended *deflation rate* of 2-3mmHg per second or a drop of one to two marks on the pressure gauge each heartbeat. *You should not keep the cuff inflated any longer than necessary.* As the cuff begins to deflate, you must listen carefully with the stethoscope. Note the reading on the gauge as soon as you hear a faint, rhythmic tapping or thumping sounds. *This is the systolic-upper-blood pressure reading.* Listen carefully and familiarize yourself with pulse sound. Once familiar you should check this procedure with your physician.



#### 5. Diastolic blood pressure reading-lower value-



- Allow the pressure to continue dropping at the same deflation rate. When your *diastolic-lower-blood pressure* value reached, the thumping sound stops.

- Deflate the cuff valve completely. Remove the cuff from arm and stethoscope from ears.

#### 6. Record your readings

Repeat the measurement two or more times. Do not forget to record your readings and the time of the day measurement is made immediately after you finish measuring. A convenient time is first thing in the morning, or just before evening meals. *Remember that your physician is the only person qualified to analyze your blood pressure.*

### Maintenance

With proper care and maintenance, your blood pressure kit will provide years of satisfactory service. The basic rules:

- Do not drop or jar.
- Never inflate beyond 300mmHg.
- Never expose the cuffs to intensive solar radiation!
- Never touch the cuff fabric or parts with a sharp instrument, since this could cause damage!
- Always deflate cuff completely before storage
- Do not dismantle manometer under any circumstance.
- Store complete instrument in storage case provided, to keep the chestpiece and all the other parts clean.
- Storage temperature condition: -20 °C to 70 °C at a relative air humidity of 85%(non-condensing).
- Wipe off the manometer and bulb with a damp cloth. Sterilization is not necessary, since the parts do not come into direct contact with the patient's body.
- Remove the bladder first, and wipe the velcro, bladder and tubes with a damp cloth. The cuff can be washed with soap and cold water like all the other cuffs, but you must rinse the cuffs with clear water afterwards and let them air dry.