

INTERGROWTH-21st

Blood Pressure Measurement Protocol



The equipment:

Microlife Blood Pressure Monitor for Pregnant Women
Cuffs of two sizes (for medium and large arms)
Rubber bladder
Pump with control valve

The circumstances:

Blood pressure is to be taken during every follow visit of the women in the Fetal Growth Longitudinal Study. The blood pressure monitor should be placed in an accessible location, near to the ultrasound room.

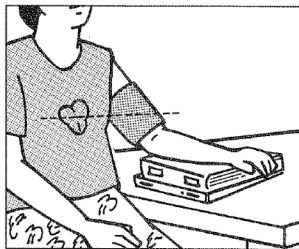
Blood pressure can rise if the patient has recently exercised or is nervous. In late pregnancy, even walking can be strenuous. Ensure that the patient has had time to rest (5-10 minutes) since arriving at the clinic. Put her at ease and make sure the temperature of the clinic is comfortable.

Position of the patient:

The patient should be seated during the blood pressure reading and for 5 minutes before it.

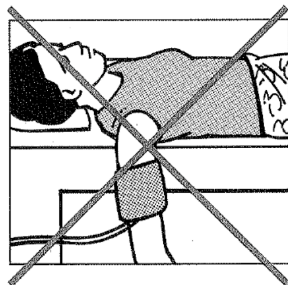
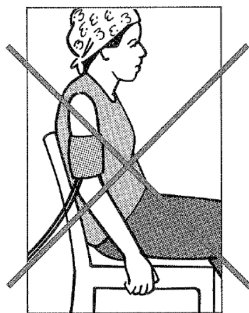
Lying down or standing during the blood pressure reading is unacceptable.

Position of the arm:



The arm must be supported so that the muscles are relaxed. The height of the upper arm where the cuff is to be worn should be at heart-level. If the table is too low, use extra support (e.g. books)

Avoid letting the arm hang down either in a sitting or lying position.



Fitting the cuff:

1. For the purposes of the study we will use the **RIGHT** arm.
2. Remove all tight clothing from around the arm.
3. The rubber bladder inside the cuff should go at least 80% of the way around the arm. If the patient has a large upper arm, use a larger cuff. Using a small cuff on a large arm can result in artificially raised blood pressure.
4. Wrap the cuff around the upper arm. The cuff must be at least 2-3cm (1 inch) above the elbow. Do not kink or twist the tubes or allow them to be tucked or caught under the cuff.
5. Make sure the patient is relaxed and comfortable. Explain that the cuff will become tight and may be mildly uncomfortable.

Measuring Procedure:

1. Press the start button. The pump begins to inflate the cuff. The rising pressure in the cuff is shown on the display.
2. After reaching the inflation pressure, the pump stops and the pressure gradually falls. The cuff pressures are displayed. In case that the inflation pressure is not sufficient, the monitor automatically re-inflates to a higher level.
3. When the instrument detects a pulse, the heart symbol in the display starts to flash and a beep is heard for every heartbeat.
4. A longer beep is sounded when the measurement has been completed. The systolic, and diastolic blood pressures and pulse rate now appear in the display.
5. The measurement results are displayed, until you switch the device off. If no button is pressed for 5 minutes, the device switches off automatically, to save the batteries

Recording the Results:

Record both the systolic and diastolic values in the corresponding data collection form in mmHg.

If this is the Maternal Study Entry visit, the form looks like this:

13. Blood Pressure	
Systolic	<input type="text"/> <input type="text"/> <input type="text"/> mmHg
Diastolic	<input type="text"/> <input type="text"/> <input type="text"/> mmHg

If this is the Pregnancy Follow-up visit, the form looks like this:

6. Blood pressure	Systolic	<input type="text"/> <input type="text"/> <input type="text"/> mmHg
	Diastolic	<input type="text"/> <input type="text"/> <input type="text"/> mmHg