

SITTING BLOOD PRESSURE FORM INSTRUCTIONS (SBP)
VERSION B, 08/15/2005
Prepared 08/27/2005

I. General Instructions

The Sitting Blood Pressure (SBP) form is completed during the participant's Exam 2 visit. The technician must be certified and should have a working knowledge of the JHS Blood Pressure Manual of Procedures. S/he should also be familiar with and understand the document titled "General Instructions for Completing Paper Forms" prior to completing this form. ID Number, Contact Year, and Name should be completed as described in that document.

There should be no exertion, eating, smoking, or exposure to cold for one-half hour before recording blood pressure. It is also important that the participant have no change of posture for five minutes before recording blood pressure.

Blood pressure is recorded twice using a random zero sphygmomanometer (and/or OmRon 706HEM digital equipment). The detailed instructions below for the administration of the SBP should be reviewed in combination with the instructions for performing the measurements in Manual 2: Cohort Component Procedures, and in Manual 3: Blood Pressure.

II. Specific Instructions

A. Temperature

1. Record the room temperature in degrees centigrade. A thermometer is read and the temperature recorded each time the procedure is initiated to note fluctuations.

B. Tobacco and Caffeine Use

2. Ask the Item as written. Use of any type of smoking materials, chewing tobacco, snuff, nicotine gum, etc. today or the current use of a nicotine patch should be noted. If none were used, skip to Item 4.
3. Ask about the most recent time. The Item is phrased "How long ago..." instead of "At what time..." in order to make it easier for the participant to answer. Record the answer in the same way. If the participant is wearing a nicotine patch, record '0' hours (item 3a) and '00' minutes (3b). If unknown, mark through the boxes with two horizontal lines.
- 4 – 5. Ask the Items as written to determine use of caffeine, following the same procedures given for Items 2 and 3 above.
6. Ask the item as written to determine any intense physical activity in the past 2 hours. Intense physical activity includes activity for longer than 10 minutes that resulted in sustained increase in heart rate, such as fast running, walking, bicycling, lifting weights or weight machines, etc.
7. This item is intended to determine whether the person has taken any blood pressure medications prior to the clinic visit. If none, proceed to Item 8, otherwise ask 7a/
- 7a. Ask the item as written to determine if blood pressure medications have been taken in the 2 hours preceding the clinic visit.

C. Preliminary Measurements

8. Measure right arm circumference once according to the directions in Manual 4: Blood Pressure. Record to the nearest centimeter.
9. Cuff size is determined by arm circumference measurement in Item 6. The appropriate size for a given arm circumference is given below, and also appears on the form itself.

<u>Arm Circumference</u>	<u>Cuff Size</u>
under 24 cm	Pediatric
24-32 cm	Regular Arm
33-41 cm	Large Arm
over 41 cm	Thigh

D. Random Zero Calibration

10. Instruct the participant to sit quietly, without changing her/his posture, while keeping both feet flat on the floor for five minutes while you step out of the room. Start a timer, and return promptly after 5 minutes have elapsed. After the participant has sat quietly for five minutes, measure the heart rate for 30 seconds (do not count for 15 seconds and multiply by two) and record the number in the spaces available.
11. After recording the heart rate, enter the time using the 24 hour clock. For example, if the time is 8:30 am, record 0830 in the blocks provided. A five-minute wait with no change of posture must precede the first blood pressure measurement.
12. Select the method / equipment used to determine sitting blood pressure. Select "Random Zero Only" if the participant's blood pressure is being measured in the JHS clinic and s/he is not identified as a participant in the Blood Pressure Comparability study. Continue to Item 13

Select "OmRon Only" if the participant's blood pressure is being measured in an off site location. Continue to Item 24, Section H.

Select Random Zero and OmRon" if the participant's blood pressure is being measured in the JHS clinic and s/he has been identified as a participant in the Blood Pressure Comparability study. Proceed to Item 13 and complete all items for the Random Zero and the Omron measurements.
- 13-14. Record the "pulse obliteration level" and the "maximum zero level" as described in Manual 3: Blood Pressure.
15. Calculate peak inflation level as "pulse obliteration pressure" + "maximum zero" + 30. This is calculated automatically when the form is entered on the computer. (As a way of denoting this on the paper form, lines are provided rather than boxes for recording the result.)

E. First Random Zero Blood Pressure Measurement

- 16-17. Measure and record systolic and diastolic blood pressures as described in Manual 3: Blood Pressure. Right justify, using leading zeros if necessary.

18. Record the zero reading.

NOTE: Do not calculate net blood pressure at this time.

F. Second Random Zero Blood Pressure Measurement

19-21. Repeat as in 16-18 above.

G. Computed Net Average of First and Second Blood Random Zero Pressure Measurements

22-23. Average systolic (Item 22) and diastolic (Item 23) blood pressures are calculated automatically when the form is entered on the computer. (As a way of denoting this on the paper form, lines are provided rather than boxes for recording the result.) When the paper form is being used, the average of the **first and second** reading for systolic and diastolic pressure must be calculated using a hand calculator. Use the worksheet at the end of the form to calculate items 22 and 23. Items 16-21 are transcribed onto that worksheet in the specified spaces. The "corrected" readings are calculated as the measurement itself minus the corresponding zero reading. These readings (first and second corrected readings) are then averaged to obtain the average corrected systolic and average corrected diastolic pressures. An example is given below.

Example:

Worksheet For Computing Average of 1st and 2nd Readings (Item 22 and 23)

	Systolic			Diastolic		
First Measurement	<u>1</u>	<u>4</u>	<u>2</u> (#16)	<u>1</u>	<u>0</u>	<u>0</u> (#17)
1st Zero Reading	<u>-</u>	<u>1</u>	<u>8</u> (#18)	<u>-</u>	<u>1</u>	<u>8</u> (#18)
First Corrected	<u>1</u>	<u>2</u>	<u>4</u>	<u>0</u>	<u>8</u>	<u>2</u>
Second Measurement	<u>1</u>	<u>3</u>	<u>8</u> (#19)	<u>1</u>	<u>0</u>	<u>0</u> (#20)
2nd Zero Reading	<u>-</u>	<u>2</u>	<u>2</u> (#21)	<u>-</u>	<u>2</u>	<u>2</u> (#21)
Second Corrected	<u>1</u>	<u>1</u>	<u>6</u>	<u>0</u>	<u>7</u>	<u>8</u>
Average Corrected	<u>1</u>	<u>2</u>	<u>0</u> (#22)	<u>0</u>	<u>8</u>	<u>0</u> (#23)

H. Omron Calibration

24. This item is equivalent to the "peak inflation level" calculated in Item 15 for the Random Zero sphygmomanometer. For those participants taking part in the Blood Pressure Comparability study, enter the same number as entered in Item 15.

For those participants whose blood pressure is being measured in an off site location and the Omron monitor is the only method of blood pressure determination, the P-set knob on the Omron monitor is set to AUTO and the unit automatically inflates to the optimal pressure according to each patient's blood pressure. Record the maximum inflation level reached by the monitor.

I. First Omron Blood Pressure Measurement

- 25 -26. Measure and record systolic and diastolic blood pressures as described in Manual 3: Blood Pressure. Right justify, using leading zeros if necessary.

J. Second Omron Blood Pressure Measurement

- 27-28. Measure and record systolic and diastolic blood pressures as described in Manual 3: Blood Pressure. Right justify, using leading zeros if necessary.

K. Calculated Average Omron Blood Pressure Measurement

- 29-30 Average systolic (Item 29) and diastolic (Item 30) blood pressures are calculated automatically when the form is entered on the computer.

When the blood pressure is taken off site using only the Omron monitor, blood pressure is taken using the AVERAGE mode. The monitor will automatically take two blood pressures. The average blood pressure is displayed, and each individual measure can also be viewed. Record the average blood pressure displayed by the monitor.

L. Administrative Information

31. Enter the date on which the participant was seen in the clinic. Code in numbers using leading zeros where necessary to fill in all boxes. For example, September 1, 2005 would be entered as:

0	9	0	1	2	0	0	5
month		day		year			

32. Record "C" if the form was completed on the computerized data entry system, or "P" if the paper form was used. If the form was completed partially on paper and partially on the computer, code as "Paper Form."
33. The person at the clinic who has completed this form must enter her/his code number in the boxes provided.