Using The HESS Blood Pressure App

Healthcare Education Simulation Station

Revised 7/1/2025

www.BetterNurseEducation.com

PLEASE READ

DISCLAIMER

The information in the HESS is not intended or implied to be a substitute for professional medical expertise, advice, diagnosis or treatment.

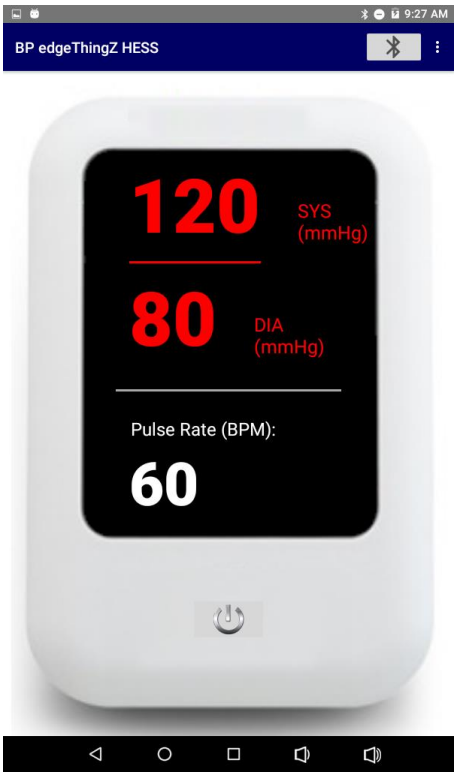
There is no representation and no responsibility for the accuracy of information contained within the HESS.

The HESS is only intended to be used as an instructional aide by qualified medical educational professionals.

About The HESS Blood Pressure App

The HESS Blood Pressure App was created to let healthcare professionals conduct learning exercises that involve a hand held or portable Blood Pressure device in a safe and “low stakes” environment.

The Blood Pressure App can be used to simulate Blood Pressure vitals on both Manikins and Standardized Patients (actors) where a real Blood Pressure unit would either display the healthy vitals of the Standardized Patient or read no vitals from an artificial Manikin limb.



Tablets Suitable To Run The HESS Blood Pressure App

The HESS Blood Pressure App can run on Android tablets with Version 8 or above of the Android operating system and with a screen size of approximately 7 inches. The 7 inch screen size is a common Android tablet size that can allow the tablet to still be hand held.

Android tablets with screen sizes smaller than 7 inches may not display the Blood Pressure App screen elements correctly.

The Blood Pressure App can be run on larger screen sizes if the educational exercise dictates using a larger tablet – such as displaying the Blood Pressure App screen on a monitor or projector.

HESS Vitals Accepted By The HESS Blood Pressure App

The HESS Blood Pressure App will recognize and use the following vitals transmitted from the HESS Instructor tablet.

1. Blood Pressure Vitals

The Blood Pressure Vitals that the Blood Pressure App recognizes and uses are the BP Systolic Pressure (mmHG), BP Diastolic Pressure (mmHG), the BP Pulse Rate (BPM) and the choice of BP Monitor Automatic Mode.

Using The HESS Blood Pressure App

1. Starting the Blood Pressure App

The HESS Blood Pressure App can be started by touching the HESS Blood Pressure App icon on the Android tablet.

2. Starting the Blood Pressure Vitals Display

AFTER the Blood Pressure Vitals have been transmitted successfully from the HESS Instructor App, the "power" button can be used to display the Blood Pressure Vitals.

If BP Automatic Mode is set to "No" when transmitting the BP Vitals, the "power" button must be pressed again to "re-read" the patient Blood Pressure in order to see any changes to the Blood Pressure Vitals.

If BP Automatic Mode is set to "Yes" when transmitting the BP Vitals, the Blood Pressure App will automatically "check" and display the current patient Blood Pressure Vitals every 60 seconds.

If the "Invasive BP Option" is set to "Yes" in the Blood Pressure App Settings, the patient Blood Pressure Vitals will display and change continuously once the "power" button has been pressed. The "power" button behaves as an "on/off" toggle in "Invasive BP Option" mode.

HESS Blood Pressure App Settings

The HESS Blood Pressure App has the following Settings available via the Android "3 dots menu" in the upper right corner of the Blood Pressure App screen:

1. BP Systolic Low And High Alarms

Sets values, that if the BP Systolic Pressure (mmHG) falls below or rises above, will trigger the Blood Pressure App to sound an audible alarm.

2. BP Diastolic Low And High Alarms

Sets values, that if the BP Diastolic Pressure (mmHG) falls below or rises above, will trigger the Blood Pressure App to sound an audible alarm.

3. BP Pulse Rate Low And High Alarms

Sets values, that if the BP Pulse Rate (BPM) falls below or rises above, will trigger the Blood Pressure App to sound an audible alarm.

4. Delay Display After Button Press

Sets a delay of between 0-15 seconds after the user presses the power button before displaying the Vitals to simulate the "reading" time of the device.

5. Hide Pulse Rate

Hides or displays the BP Pulse Rate.

6. Invasive BP Option (IBP vs. NIBP)

Sets Invasive (IBP) or Non-Invasive (NIBP) mode.

If "Yes" for IBP mode, the patient Blood Pressure Vitals will display and change continuously once the "power" button has been pressed. The "power" button behaves as an "on/off" toggle in IBP mode.

7. Device Address

The Blood Pressure App receiving address for the Vitals – which must match the transmission address for the Vitals in the HESS Instructor App. Device Addresses are 4 characters made up of the characters 0-9 and A-F. **DO NOT USE** "0000" or "FFFF" as Device Addresses. "0000" and "FFFF" have special uses within the HESS. Using these special Device Addresses can cause unpredictable results.

HESS Blood Pressure App Usage Notes

1. Bluetooth Reset Button

If, after numerous attempts, the Blood Pressure App is still not receiving Vitals transmissions – even though the Instructor transmission and the Device receiving addresses match – the "Bluetooth Reset" button in the upper right corner of the screen can be used to reset the Android tablet's Bluetooth functions. This often will resolve Bluetooth oriented issues without having to stop or disrupt the app.

2. When Done, "Power Off" Tablets – Don't Just "Suspend" Them

The Android tablets should be completely "powered off" when stored or the battery will drain to 0% charge. Completely drained batteries can then take 20-30 minutes of charging just to get the tablet to power up for usage. Even if the tablet screen is dark it can be misleading because the tablet may only be "suspended". Pressing the power button for ½ second will indicate if the tablet is completely powered off – by either "unsuspending" the tablet screen if the tablet is only "suspended" – or remaining dark if the tablet is completely powered off.