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(54) **METHOD FOR SYSTOLIC BLOOD PRESSURE MEASUREMENT**

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(57) **ABSTRACT**

A method for measuring systolic blood pressure includes raising the cuff pressure in such a manner that two conditions are satisfied: (1) The cuff air pressure takes sufficient time to reach the SBP value to avoid blood pressure in the arteries under the PPG sensor being too low, thereby avoiding collapse of the arterioles under the PPG sensor; and (2) The increase of the cuff air pressure between the DBP value and the SBP value is not overly slow in a manner which would cause a relatively high mean blood pressure in the arteries distal to the cuff, and could lead to reduced sensitivity in detecting the restart of blood flow when the cuff air pressure decreases to just below SBP value.

19 Claims, 5 Drawing Sheets