

To measure blood pressure the nurse puts an inflatable cuff on the patient's arm (blood pressure is taken on the brachial artery). The cuff is linked to a digital blood pressure monitor or to a sphygmomanometer. After the cuff inflates, the air is slowly let out and the reading is taken. Normal blood pressure is a systolic number between 90 and 120, and a diastolic number between 60 and 80. Blood pressure below 90/60 is called hypotension. Hypotension can cause dizziness or fainting, and may be a sign of a heart or neurological disease. If the blood pressure is permanently higher than 130 (systolic) and 80 (diastolic) it means that the person suffers from hypertension – a disease damaging blood vessels, which can lead to a stroke, heart attack, or kidney disease. A single elevated reading does not mean that a person has hypertension – it may be due to feeling nervous/anxious or some short-term medical problem.

Respiratory rate (RR), also known as respiration or breathing rate, is the number of breaths per minute. It is usually measured when a person is at rest and involves counting the number of breaths for one minute by counting how many times the chest rises. The average adult respiratory rate is 12–20 breaths per minute. Respiration rates may increase with fever, illness, or other medical conditions. When checking respiration, it is also important to note whether a person has any difficulty breathing. If the patient suffers from shortness of breath it may indicate some respiratory disease.

Body temperature is usually taken in one of these ways: orally – in the mouth, rectally – in the rectum, axillary – under the armpit, by ear (tympanic temperature) or by skin (on the forehead). Temperature is recorded in degrees Celsius (°C) or Fahrenheit (°F). Nowadays temperature is usually taken with an electronic thermometer, but mercury thermometers, banned in most EU countries, are still used in many parts of the world.

Normal body temperature ranges from 36.6°C to 37.5°C. An increase in the temperature above the normal range is called fever (or pyrexia). A patient who has fever is a febrile patient; a patient, whose body temperature is normal is afebrile. The main causes of fever are inflammations and infections. A febrile patient may experience excessive perspiration or shivers. Different diseases cause different degrees of fever (e.g. influenza may cause much higher fever than pneumonia). Body temperature above 41.1°C which is not fever but is caused e.g. by heatstroke is called hyperthermia. Temperature below 34.4°C is called hypothermia.

Apart from the four main vital signs there are also others, e.g. oxygen saturations (concentration of oxygen in the patient's blood, measured with a pulseoximeter; the reading is the percentage of oxygen in the blood). Vital signs are recorded in the document called Observation Chart. It is daily reviewed by the doctors in order to check any abnormalities or rapid changes or fluctuations in measurements which may indicate the deterioration of the patient's condition.

13 Answer the following questions.

1. In what situations do nurses check a patient's vital signs?
2. What are the types of abnormal pulse?
3. When can we suspect hypertension in a patient?

14 How can you replace the words in bold? Find 3 synonyms of the word "measure" and 1 synonym of the phrase "vital signs".

Nurses **measure** the patient's **vital signs**.

1. Nurses the patient's vital signs.
2. Nurses the patient's
3. Nurses the patient's vital signs.