

Team suggests device for distant monitoring of blood pressure

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Credit: National Research Nuclear University

Specialists from the Institute of Cyber Intelligence Systems and the Engineering centre (National Research Nuclear University MEPhI, Russia) have developed a device, which allows conduct distant daily

monitoring of patient's blood pressure. The device is more autonomous compared with analogues, and more convenient and effective for use in ambulatory conditions.

Blood pressure is an important health indicator; well-being and health often depend on it. But there are situations when one-time measurement of this indicator is not enough. For the past 10 years, methods have been developed to constantly measure [blood pressure](#). This is called ambulatory blood pressure monitoring (ABPM).

The disadvantage of standard ambulatory measurement systems is that the data is stored on a special device, and there is no way to transmit it to the doctor, which doesn't allow monitor the patient's state in real time. What's more, modern devices have disadvantages that limit user convenience.

The new device suggested by MEPhI specialists is highly autonomous, which makes 24-hour monitoring more convenient for the patient. The [device](#) uses an oscillometric method of pressure measuring with step-by-step release and storage of records . The algorithms for the calculation of statistical indicators of blood pressure and pulse rate do not require any special design. It provides one-time measuring of [blood pressure](#) and real-time remote monitoring by a specialist. A prototype is being tested to confirm efficiency and reliability.

Provided by National Research Nuclear University

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