Scientists of the Novosibirsk State Medical University developed and patented a new method for diagnosing violations in the work of blood vessels. This development allows you to predict the development of arterial hypertension in the early stages.

The method is aimed at identifying endothelial dysfunction – the pathological condition of cells lining the inner surface of the vessels. This condition is characterized by narrowing of the vessels, increased permeability of their walls and a tendency to form blood clots.

A special mathematical formula has been developed to calculate the risks. It takes into account several parameters: the diameter of the shoulder artery is at rest and after measuring pressure, the concentration of low -minor dyaticide (an oxidative stress marker), cholesterol and daily blood pressure.

The resulting indicator of endothelial dysfunction has a linear dependence on the probability of the development of pathology. The value of more than 0.5 indicates an increased risk of violations.

The development of Novosibirsk scientists to identify the risks of the development of arterial hypertension at the preclinical stage, when there are still no clear symptoms. This opens up opportunities for early prevention of cardiovascular diseases.

The method can be used for patients of various age groups.