

Iranian scientists use stem cells to repair fractured bones

Written by Mehr News Agency
Tuesday, 13 June 2023 15:40 -



The head of the Research Department of the Semnan University of Medical Sciences said, "Healing of bone injuries with stem cells and bone scaffolding was done for the first time in the world in Semnan province.

Majid Mir Mohammad Khani told reporters on Tuesday that they conducted the research on rats first due to the similarity between their bodies with the human body.

He continued that the bones in some rats were repaired in 8 weeks while that period for some other rats was 12 weeks.

The researcher said that they will move forward with their idea to test it on humans in the next clinical trial phase.

Mir Mohammad Khani noted that depending on different age groups, the time of bone repair could vary.

The bone scaffold is made of polylactic acid, which was made with a 3D printer and contains bone marrow stem cells. One of the branches of tissue engineering is the creation of artificial skin, which is used in burns, and in this research, it was used in bone repair," he further explained.

To carry out the research, a bone injury was created in a rat, and then with the help of a 3D printer bone marrow was taken from the animal, and its stem cells were placed on the scaffold and placed on the fractured skull of the rat. The results showed that bone was created on the fractured site of the bone with the vessel also being formed," the researcher further elaborated.