Scientists from South Korea developed 3D-printing technology directly during the operation.

To do this, they modified the usual glue-pistol, turning it into a device that can apply special bone-like material directly to the fracture. The method has already been successfully tested on rabbits.

Traditionally, with serious fractures, doctors use bone transplants or metal plates, which are not always perfect in shape, which worsens the fixation.

The 3D printing of individual implants has already been used earlier, but took too much time to use it directly during the operation.

New material combines polycaprolactone (biodegradable polymer), hydroxyapatitis (calcium mineral, key to bones) and antibiotics that prevent infections. The composition quickly freezes at body temperature and gradually resolves.

The experiments showed that in animals with this method, healing was faster and a denser bone tissue was formed than with traditional cement.

Scientists believe that in the future this technology can be widely used in traumatology, although the implementation needs tests on larger animals.