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3D-BIOPRINTING TECHNOLOGY IN MEDICINE
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Promising technologies is mixed reality (MR) used not only in medicine but in different spheres of life. One of the most promising areas of MR in medicine is the use of 3D printers to print living tissue and organs. The technology of 3D-bioprinting allows specialists to print living tissue and organs in the shortest time.

People are susceptible to various diseases. Over time, the individual organs are needed to be replaced. Due to the shortage of donor organs scientists came up with the idea of creating artificial organs. There are many ways of their creation and replacement.

Experiments are conducted on the printing of donor organs, on the production of medicines. The FDA (Food and Drug Administration) approved the pill, made with the help of 3D printing.

The most important advantage of using 3D printers is to print a prosthesis ideal according to the individual characteristics of the person. In dentistry, 3D printers allow doctors to make temporary crowns. 3D printer can print 150 artificial eyes per hour. Thanks to 3D printing, scientists were able to create various types of human tissues, and above all, the liver tissue, which is already being used in the testing of drugs for toxicity.

The development of 3D-bioprinting technology plays an important role in growing bodies and the development of innovative materials, especially biomaterials prepared and used for printing three-dimensional objects. Tissue, drugs and whole organs, manufactured by 3D-bioprinting in the future will be able to act as substitutes for "natural" human bodies, in some cases possessing properties superior to the natural organs. For example, alginic acid, a polysaccharide, currently extracted from red algae, is superior in some respects to the natural material of the human body, as well as synthetic hydrogels, including gel-based polyethylene glycol.

In medicine, 3D printing is already being used in prosthetics and implanting (skeleton fragments, skulls, bones, cartilage).

In medicine there is a trend of finding ways to avoid using artificial materials.

The development of 3D organ printing is an important direction of medicine. The main aim is growing entire organs.