

3D printed bone reconstruction for landmine survivors



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Dedicated to using technology to clear the 110 million active landmines still scattered around the world, the [Find A Better Way](#) charity has partnered with the University of Glasgow to fund a new method for improving post-blast reconstructive surgery. Much of a surgeon's success in rebuilding the injured parts of the body lies in the amount of viable bone and tissue that are available. Now, using 3D printed scaffolding and lab-grown bone, personalized pieces can be produced in three to four days.

The bone scaffolds are coated with stem cells and growth factor, and once a large enough piece has been grown it can be implanted into the body. The scaffolding will dissolve and the custom piece of bone will continue to grow as needed. Tests started early in 2017, and future plans include producing "off-the-shelf" pieces of bone that local surgeons will be able to shape as per the recipients' requirements.

3D printing is helping surgeons and researchers in a variety of ways, from producing disease-specific [replica organs](#) to practice a tricky procedure on to creating [organs-on-micro-chips](#) that could eventually replace animal testing. Outside healthcare, how else could practice on 3D printed products improve professional results?

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