

3D printing in the medical field?!

Posted by Waldo - 2011/11/08 13:50

I read on this article that Dr. Anthony Atala, a regenerative medicine specialist, used 3D printing to recreate a kidney! That is insane that this kind of technology can reproduce organs and tissue! Where else is this incredible technology going?!

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Re:3D printing in the medical field?!

Posted by Waldo - 2011/11/10 17:48

Next Step in 3-D Printing: Your Kidneys

BY Anya Kamenetz Thu Mar 3, 2011

cross section of kidneys

Dr. Anthony Atala, a regenerative medicine specialist at Wake Forest University, is pioneering the use of printing techniques to reconstruct and repair human flesh and organs. The basis is a combination of cultured human cells and scaffolding built or woven from organic material.

In one staggering setup, a patient lies on a table and a flatbed scanner literally scans her wound, followed by a printer that adds just the right types of tissues back on at the right depth. "You can print right on the patient," Dr. Atala told the TED audience on Thursday. "I know it sounds funny, but it's true."

The next evolving step is the use of 3-D printers, which I wrote about on Tuesday, to rebuild human organs. Ninety percent of patients on the organ donation list are waiting for kidneys, a fist-size organ with a profusion of tiny blood vessels. To build a customized kidney, first you scan the patient with a CT scanner, then use 3-D imaging techniques to create a computerized form that the printer can read, and finally build the organ layer by layer. Printing a new kidney currently takes about six hours, and once the technology is perfected, it will last for a lifetime--a young man, Luke Masella, came out on stage who had similar surgery to his bladder 10 years ago.

This post has been corrected--it previously implied that Masella had had his kidney replaced.

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Re:3D printing in the medical field?!

Posted by jsantos - 2011/11/15 11:55

That's pretty neat! I wonder what else they'll be able to print

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