

Media reports on kidney printing inaccurate

4 March 2011

A surgeon specializing in regenerative medicine on Thursday "printed" a real kidney using a machine that eliminates the need for donors when it comes to organ transplants. Provided by Wake Forest University Baptist Medical Center

Reports in the media that Dr. Anthony Atala printed a real kidney at the TED conference in Long Beach, Calif., are completely inaccurate. At the conference, Dr. Atala used a new type of technology to print a kidney-shaped mold and explained how one day - many years from now - the technology might be used to print actual organs.

At the conference, Atala was reunited with a former patient who received a laboratory-engineered bladder 10 years ago. News reports are incorrectly saying that he received a printed kidney.

Reports that bioprinting will eliminate the need for organ donation are also false. While this technology shows promise, it will be many years before it could be applied to patients.

This technology has the ability to print cells and biocompatible materials at the same time. The hope is that one day it will be used to print tissues and organs. This demonstration, in which a kidney-shaped mold is printed, shows how the technology works:

• Cells and biomaterials are inserted in the printer cartridges.

• A CT scan from a patient would be used to create a "map" to guide the printer.

• The printer "prints" biocompatible materials that form the kidney shape.

• While this mold has the shape of a kidney, it is not functional because it has none of the vessels or internal structures.

APA citation: Media reports on kidney printing inaccurate (2011, March 4) retrieved 19 October 2021 from <https://medicalxpress.com/news/2011-03-surgeon-kidney-ted-stage.html>

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