

## 3-D printing technology from CT images may be used effectively for neurosurgical planning

April 29 2011

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3D models, produced by combining a patient's CT scans and 3D printing technology are proving useful in neurosurgical planning.

3D printing technology is a fast and affordable way to build [3D models](#) for neurosurgical planning. Radiologists are able to transform ultra high-resolution CT patient images into 3D solid models using a 3D color printer commonly used in architecture, engineering and construction.

An advantage of 3-D models is that they identify defects that 2-D images do not, which helps radiologists view a clearer impression of the image. With increasing frequency, surgeons and other [physicians](#), and patients alike, request assistance from radiologists in order to identify complex morphologies demonstrated on imaging studies.

"We are applying a technique that has many uses in other industries to aid surgeons in planning procedures on complicated anatomy and pathology as well as help them communicate with patients and their families. Tripler [doctors](#) were sending data from Hawaii to the mainland US to have models made at great expense and considerable time. Other radiologists may find these resources in an architect's office or at a factory using 3D printing to make [prototypes](#) for just about anything you can fit in a shoebox," said Michelle Yoshida, MD, one of the authors of the exhibit.

Provided by American Roentgen Ray Society

Citation: 3-D printing technology from CT images may be used effectively for neurosurgical planning (2011, April 29) retrieved 23 April 2024 from <https://medicalxpress.com/news/2011-04-d-technology-ct-images-effectively.html>

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