



Anatomage technology

Imaging and visualisation technologies have become increasingly important in almost all medical fields in recent years. They make it possible to image either the entire body or parts of the body's interior. The advantage for patients is that the procedures are usually non-invasive and painless, and their reliable results support doctors in their diagnosis. A new procedure is now designed to perform virtual dissections for anatomical teaching and training.

What can you imagine by this? Life-size 3D anatomies created on the basis of real, segmented cadavers as well as physiology models. The anatomically precisely digitised bodies offer more than 2,600 individual structures and can be adjusted according to the intended use and requirements.

What is the technology behind it? Through a unique infrastructure of software tools and systems, the table is able to facilitate efficient 3D segmentation processes. In contrast to other anatomical visualisation technologies, Anatomage is able to interactively depict organs, vascular connections and a complete and detailed overall image of the vascular, arterial and venous structure in a realistic manner. The basis and reference for this are preserved human bodies, which were reconstructed for the visualisation in a detailed and exact manner.

The table's innovative 3D anatomy technology enables not only high-resolution three-dimensional images through visualisation software, but also many interactive possibilities through a touch screen. In this way, the digital body can be moved and virtually dissected. With the help of a special tool, medical students can make cuts on the virtual cadaver and penetrate and remove the various bodily structures and layers just like in reality.

The latest model of Anatomage technology is also equipped with visualisation tools for cardiac functions and blood circulation so that cardiac and physiological vital signs can be better displayed. This is based on a digital construction of three-dimensional CT cardiac data embedded in the digital body, which allows a real simulation of the systolic and diastolic cardiac cycle phases.

The integrated kinetic function analysis through various simulation tools is also particularly interesting. These reproduce movements of the human body that can be activated individually by the user to gain a better understanding of the physiological origin and functioning of movements.

Another worldwide unique feature is the illustration and modification of a digital pregnancy. Here, students can anatomically reproduce the development of a human embryo and the accompanying changes in the female body. The data set for this comes from MRI evaluations of a 31-week foetus.

Innovative technological approaches

- ◇ **Company:**
Anatomage Inc
- ◇ **Product:**
Anatomage Table 8
- ◇ **Technological base:**
3D anatomy hardware and software
- ◇ **Field of application:**
Digital 3D body dissection for teaching and training
- ◇ **Special features:**
Anatomy table with high-resolution and interactive visualisation and detailed mapping and simulation of living anatomy and kinetic movements on digital cadavers.

Digital pregnancy to train anatomical understanding of embryonic development and change in the female body during pregnancy.

The company: Anatomage Inc

As the market leader in medical virtualisation technology, the American company enables medical students, doctors and professors to better understand the human anatomy virtually in accurate and realistic images. Based in Silicon Valley, the company has established itself internationally in both education and healthcare over the past few years and is always looking to integrate new innovations and technologies into their anatomy tables.

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