

# Dearth of bodies force medical colleges to turn to simulators

Ajitha Karthikeyan | TNN

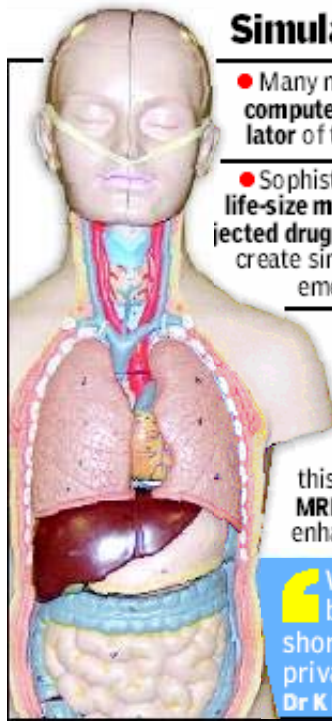
Chennai: When the doctor-parents of 16-year-old Hithendran donated his body organs after he suffered brain death in an accident in 2008, it not only created awareness among the public but also triggered a cascading effect in the state with many coming forward for organ donation. However, it is not the case with donating dead bodies for medical research.

The shortage of dead bodies is so much so that private medical colleges are turning to computer simulators to provide training on various procedures ranging from basics like blood draw to laparoscopic surgery and trauma care, instead of the traditional method of dissecting cadavers.

The city-based Frontier Lifeline is planning to set up simulation units for medical and surgical training in its new facility to come up at Ilavur village in Tiruvallur district. "We do get some destitute bodies but there is a shortage of cadavers in private medical colleges. But world over, medical institutions have been switching over to simulators to study human anatomy," said its chairman Dr K M Cherian.

Renowned actor Kamal Hassan created ripples when he pledged his body for medical research a few years ago, but the idea is yet to catch up in the state for which religious beliefs and emotional issues are attributed as reasons.

However, the government medical colleges face no such problem as unclaimed bodies are being used for medical research. "We have a good pile of bodies — those of destitutes and orphaned people," said Dr S Elango, Director of Public Health and Preventive Medicine. But, medical experts have begun pitching in for



## Simulators to rescue

- Many medical simulators involve a **computer connected to a plastic simulator** of the relevant anatomy
- Sophisticated simulators employ a **life-size mannequin that responds to injected drugs** and can be programmed to create simulations of life-threatening emergencies
- In other simulations, **visual components of the procedure are reproduced** by computer graphics
- Medical simulations of this sort will often use **3D CT or MRI scans of patient data** to enhance realism

We do get some destitute bodies but there is a shortage of cadavers in private medical colleges  
Dr K M Cherian | FRONTIER LIFELINE

computer simulators saying it provided layer by layer account of human anatomy and could be used by anyone sitting on computer. "Traditionally, a junior doctor will be assisting senior surgeons as part of his training process. But it will take him several years before he starts functioning independently. It has also become very difficult to train people in real life situation, as zero error has to be maintained in medical treatment," said paediatric cardiac surgeon Dr Ravi Agarwal. He said advanced technologies like disectible 3D human anatomy software and visible human dissector, an interactive computer program that provides a real human cadaver for virtual dissection, were helpful in developing high-level skills.

However, there has also been a counter argument that simulators cannot give natural feel of tissues like a human cadaver.