UNT Professor’s Laser Technology Could Change the Way Surgeons Operate

University of North Texas

When surgeons need to cut or shape bone during surgery, they use a number of conventional tools including saws, drills, hammers, chisels and grinders. These tools often cause undue damage to surrounding tissues or other bones, slow down surgeries and leave patients with lengthy recovery times.

A University of North Texas [1] professor has filed a patent on a new laser technology he and his research associate developed for cutting and shaping bone that causes minimal damage to the surrounding tissue and bones, could speed up surgery and recovery times, and even lessen the amount of blood lost during operations. Narendra Dahotre [2], professor and department chair of the UNT College of Engineering’ [3]s Department of Materials Science and Engineering [4], has been studying laser technologies for nearly two and half decades.

“This laser technique is a revolutionary tool, and could replace many of the conventional metal tools that cause so much excess damage during surgery,” Dahotre said. “The technique we developed allows for precise interaction of the laser beam with the matter it is cutting.”

Some of the procedures the technology would be ideal for include removing cancerous segments of bone, joint replacements, bone grafts and limb salvaging.

Dahotre also intends to develop a robotic system that would allow surgeons to operate remotely using computer controls for automation and precision.

Source URL (retrieved on *03/16/2014 - 6:11pm*):
http://www.mdtmag.com/news/2013/05/unt-professor%E2%80%99s-laser-technology-could-change-way-surgeons-operate

Links:
[1] http://www.unt.edu/
[2] http://mtse.unt.edu/Dahotre/
[3] http://engineering.unt.edu/
[4] http://mtse.unt.edu