



The Cutting Edge

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Augmented reality improves training for keyhole surgery

Keyhole surgery (laparoscopy) has rapidly become a popular technique in hospitals but it requires very different skills to 'traditional surgery'. In 2007, the Dutch Health Inspectorate reported that hospitals are too quick to use keyhole surgery. Too many surgeons underestimate the risks and complications. Most of these complications are the result of a lack of training. Augmented Reality is a new form of simulation, in which physical realism is combined with VR. Realistic haptic feedback is provided by the fact that the surgeon practices using real materials and instruments, and objective assessment is also possible because the position of the instruments can be determined. (DUT – March 31, 2009)

More at <http://www.news-medical.net/?id=47683>

Health Is Going High Tech With Camera Pills, Health Sensors And Ultrasound Maps For Surgeons

Camera pills and ultrasound creating maps of the body: health has become high technology. Here are some of the recent advances in medical technology. All in all, technology is becoming an ever more useful servant of the health services, in making early diagnoses, accurate operations and stressing patients as little as possible. (SINTEF – March 7, 2009)

More at <http://www.sciencedaily.com/releases/2009/02/090223115327.htm>



High Proportion Of Older Surgeons Leaving Practice Will Lead To Continued Surgical Care Shortage

New research published in the March issue of the Journal of the American College of Surgeons reveals shortages of qualified surgeons in many regions of Maryland, especially in rural areas. Excessive administrative demands and an aging physician and general population could push these shortages to critical levels over the next 10 years. Over the past two decades, the American population has grown by approximately 50 million people, yet the number of practicing physicians has remained the same, at about 750,000. Medical education programs, limited by the 1997 Balanced Budget Act, have had their output capped at about 25,000 per year. (American College of Surgeons – March 26, 2009)

More at <http://www.medicalnewstoday.com/articles/143635.php>

Child survives temporary removal of six vital organs

Heather McNamara, 7, will be discharged from a New York hospital Tuesday after a daring, high-risk operation last month in which doctors removed six vital organs so they could take out a baseball-size tumor that had invaded her abdomen and threatened her life. The Feb. 6 operation lasted 23 hours. It was the first of its kind in a child and the second in the world, said the lead surgeon, Tomoaki Kato. In effect, the young cancer patient was both the donor and recipient of her own organs. (Tucson Citizen – March 9, 2009)

More at http://www.tucsoncitizen.com/daily/all_headlines/111805.php

Combat Injuries: A Matter Of Life And Death

Orthopaedic surgeons play a crucial role in the care of active duty military personnel according to a Forum article in the April 2009 issue of The Journal of Bone and Joint Surgery (JBJS). Surgical teams are providing treatment as soon as possible after injury, thereby saving lives and helping injured personnel obtain optimal function. Orthopaedic surgeons are highly skilled at repairing the limb injuries that comprise approximately 70 percent of combat injuries. Those injuries are typically caused by high-energy weapons and are highly damaging to bone and soft-tissue. Injuries caused by explosive devices are common in Iraq and often combine penetrating, blunt, and burn injuries. (JBJS – April 2, 2009)

More at <http://www.medilexicon.com/medicalnews.php?newsid=144677>



*****GENERAL HEALTHCARE Articles*****

Can Second Life help teach doctors to treat patients?

At Imperial College London, medical students navigate a full-service hospital where they see patients, order X-rays, consult with colleagues and make diagnoses. It's an interactive, hands-on learning experience -- and none of it is real. These prospective doctors are treating virtual patients in Second Life, the Internet world where users interact through online alter egos called avatars. The third-year med students are taking part in a pilot program for game-based learning, which educators believe can be a stimulating change from lectures and textbooks. (CNN – March 30, 2009)

More at <http://www.cnn.com/2009/TECH/03/30/doctors.second.life/index.html>



Mutated Gene in Zebrafish Sheds Light on Blindness in Humans

Among zebrafish, the eyes have it. Inside them is a mosaic of light-sensitive cells whose structure and functions are nearly identical to those of humans. There, biologists at The Florida State University discovered a gene mutation that determines if the cells develop as rods (the photoreceptors responsible for dim-light vision) or as cones (the photoreceptors needed for color vision). Described in a paper published in the Proceedings of the National Academy of Sciences (PNAS), the landmark study of retinal development in zebrafish larvae and the genetic switch it has identified should shed new light on the molecular mechanisms underlying that development and, consequently, provide needed insight on inherited retinal diseases in humans. (FSU – March 24, 2009)

More at <http://newswise.com/articles/view/550396/>



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