Knee Surgery Training Benefits From Ascension Sensors

New Simulator Advances Medical Training, Leads to Improved Skills and Quality of Care

Burlington, VT (January 16, 2013) – Training in knee arthroscopy, a minimally invasive surgical procedure for diagnosing and treating joint problems, is getting a significant boost with the ArthroS™ simulator. Using magnetic sensors made by Ascension Technology, the simulator provides trainees with realistic, hands-on experience in performing arthroscopic knee procedures and managing complications without risk to patients. To view a video of the ArthroS™, go to: http://www.virtamed.com/products/arthros

Acquiring basic arthroscopic skills requires many repetitions of the same intervention to develop proficiency. For many years, surgical training could only be done by apprenticeship or by working on animal organs or rubber models.

The ArthroS™ simulator, developed by Zurich-based VirtaMed, combines a lifelike rubber model with virtual reality. Using original endoscopic tools with embedded Ascension sensors, the simulator tracks and records the students’ movements, providing feedback as they practice treating a variety of conditions.

“Unlike the robots typically used in surgical simulation, the Ascension tracking system’s precise 6-degrees-of-freedom allows us completely free movement of all instruments inside and around a knee model,” said Daniel Bachofen, Chief Technology Officer at VirtaMed. “In addition, due to their small size, the sensors require less modification to the original surgical tools than if we were working with robot interfaces.”

VirtaMed plans to launch a shoulder module for the ArthroS™ early this year, and will continue adding on to the ArthroS™ platform to develop simulators in future years that provide training for other joints, depending on the need for innovative education.
**About arthroscopy**

During arthroscopic procedures, small incisions are made in the joint so that a surgeon can insert a narrow tube containing a fiber-optic camera. The procedure is used for both diagnosing and repairing some types of joint damage. Because the procedure is minimally invasive, recovery time is often reduced significantly.

Knee conditions that may be treated with arthroscopy include bone spurs or loose bone fragments, damaged or torn cartilage, inflamed joint linings, joint infections, torn ligaments and tendons and scarring or tissue overgrowth within joints.

For more information about ArthroS™, go to [www.virtamed.com](http://www.virtamed.com) or contact Asta Breitenmoser at breitenmoser@virtamed.com.

###

**About Ascension**

Ascension Technology Corporation, an NDI company located in Milton, Vt., is a world leader in magnetic and optical tracking solutions for medical, biomedical and commercial applications. News about Ascension trackers in biomedical research is available at [www.ascension-tech.com](http://www.ascension-tech.com), or from Joanna Harrington at: 802-893-6657, ext. 44.

**About VirtaMed**

VirtaMed is a Swiss company with an interdisciplinary background in medicine and engineering. Its mission is to develop state-of-the-art training tools for endoscopic surgery of the highest possible realism, all with the ultimate goal of improving the quality of patient care. VirtaMed’s virtual reality simulators provide instructional teaching and training for different diagnostic and therapeutic endoscopic interventions. More information is available at: [http://www.virtamed.com](http://www.virtamed.com)