# Cutting-Edge Surgery Now Employs 3D Images

(NAPSA)—Blockbuster movies aren't the only thing that can benefit from 3D technology. It seems that HD 3D video is a hit in the operating room as well. That's the word from experts who say a growing type of surgery called laparoscopy is benefiting from recent applications of 3D technology.

Laparoscopy is a type of minimally invasive operation performed in the abdomen or pelvis through small incisions with the aid of a camera. The method has become increasingly common in hospitals, with about 3 million procedures performed in the U.S. each year.

Compared to open surgery, the approach offers reduced pain due to smaller incisions and less hemorrhaging, shorter recovery time and better cosmetic results. An additional advantage includes reduced infection rate, since delicate tissues are not exposed to the air of the operating room over long periods of time, as they are when the body is open in traditional surgical procedures. The key instrument used in this type of surgery is called a laparoscope. This is a telescopic rod/lens system that is usually connected to a video camera. Also attached is a fiber-optic cable connected to a light source—either halogen or xenon—to illuminate the operative field.

Surgeons, however, lose some of the natural depth perception and precision when migrating from open surgery to laparoscopic surgery. Fortunately, a new laparoscopic surgical video system provides three-dimensional HD images said to help restore the surgeon's natural 3D vision and depth perception.

Called the ENDOEYE FLEX 3D Videoscope, from Olympus Medical Systems Group, this 3D video laparoscope is an enhanced version of previous Olympus 2D articulating-tip videoscopes. It utilizes two, distally mounted camera chips inside the scope along with the light-guide cable to deliver an all-in-one lightweight device, which is designed to deliver superior 3D imaging performance. The flexible tip design makes it possible to view the desired organs and see areas not previously accessible with standard laparoscopes. The result for the surgeon is better sight lines, the ability to peer around anatomical structures or perform more precise suturing—something that was lacking in the flat images provided by previous 2D imaging systems.


**The ENDOEYE FLEX 3D gives surgeons the ability to perform minimally invasive surgeries while maintaining depth perception not possible with 2D video systems.**

Another significant advantage of the new Olympus HD 3D video platform is its availability as a module that can be easily added to an existing Olympus 2D EXERA III imaging system.

The modular design reduces the institutional investment necessary to add 3D capability, and allows the surgeon to choose either 2D or 3D visualization from the surgical field. This helps to reduce capital investments and simplify asset management and training.

Olympus Medical Systems Group is a division of global technology leader Olympus.

For more information, visit www.medical.olympusamerica.com.