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## New 4th Category of Hernia Mesh Can Drastically Reduce Post-Operative Chronic Pain and Recurrence

**DATE: March 20, 2021 – Chicago, IL** --(BUSINESS WIRE)— Surgical Technology International has released a [publication](#) led by Dr. Bruce Ramshaw, Past President of the Americas Hernia Society and Co-Founder of CQInsights; and Dr. Sheila Grant, Associate Vice Chancellor of Research & Strategic Initiatives for the University of Missouri and a professor in the Department of Biomedical, Biological and Chemical Engineering at the University of Missouri.

The authors set out to corroborate findings of the [prior animal study](#) and evaluate the intramesh healing in explants from actual patients who suffered from hernia recurrence and/or chronic pain after hernia repair with mesh, where non-woven SURGIMESH® had a significantly reduced incidence of fibrous connective tissue (FCT) discontinuity and a higher probability of a FCT response than knitted surgical mesh.

Surgeons are beginning to recognize the interactions of specific meshes within the patient and their relationship to outcomes. Understanding these interactions can help to identify and develop specific meshes to address these issues. The new data demonstrates that adipose tissue infiltration is present instead of FCT infiltration up to 18.9 percent of the intramesh healing for a variety of clinically used woven/knitted polypropylene mesh products; The non-woven, randomly oriented, polypropylene SURGIMESH reduced adipose tissue infiltration to 1%.

“The SURGIMESH team is delighted to share this information with physicians, hospital quality personnel, and the over 1 million patients who have hernia surgery every year,” said John Huelskamp, President and Chief Executive Officer of BG Medical. “This evidence validates our commitment to rapidly growing our hernia patient-focused organization and increasing our commercial presence in major markets, and furthers our commitment to improving outcomes and decreasing the cost of healthcare.”

“The interaction between hernia mesh and the human body was the first complex problem I investigated after learning the need to use systems and data science principles to understand the real world’s uncontrollable biological variability. What we learned was that the same mesh can have very different interactions in different patient sub-populations. In this pilot study, we found varying degrees of fat attachment to knitted and woven hernia mesh, which might inhibit fibrous connective tissue ingrowth. We are now most interested in what happens in actual patient care and how can we best measure and improve the value of care for patients. In an attempt to do this, CQInsights is partnering with BG Medical to launch a value-based continuous quality improvement (CQI) project at multiple clinical sites to use real world data to measure and improve patient outcomes,” said Dr. Bruce Ramshaw.

Dr. Grant commented, “this is a first-of-its-kind study where we determined that the presence of adipose tissue adversely affects mesh integrity. By systematic exploring and understanding the root causes of mesh degradation, we will be better able to improve mesh design and provide better treatment options for the patient. New designs for hernia mesh can be implemented that reduces adipose tissue attachment while promoting fibrous connective tissue ingrowth.”



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Dr. Ramshaw, Dr. Grant and their colleagues concluded that adipose tissue infiltration does occur in knitted and woven polypropylene hernia meshes, more so than non-woven *SURGIMESH*, and may interfere with normal intramesh fibrous connective tissue healing, which could be a mechanism for pre-mature mechanical failure of mesh and lower strength hernia repairs.

**About BG Medical and *SURGIMESH***

*SURGIMESH* is the only non-woven polypropylene matrix mesh that promotes rapid and complete vascularized incorporation in just 12 days. Because of its low profile and ability to be trimmed, *SURGIMESH* is also easier to deploy for all types of open and laparoscopic procedures, including robotics. *SURGIMESH* is a proprietary 21st century alternative to the use of older knitted or woven meshes and has the potential to significantly reduce chronic pain and recurrence. BG Medical's headquarters is in Chicago, IL. For more information, visit <http://www.surgimesh.com>

BG Medical encourages patients to seek medical attention for typical and atypical symptoms associated with hernias to help achieve and maintain good health with as high a quality of life as possible. You should talk to your doctor about the potential benefits and risks and whether a hernia procedure is right for you. Information contained on this site is not to be used as a substitute for talking to your doctor. You should always talk to your doctor about diagnosis and treatment information.

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