

# GORE BIO-A Tissue Reinforcement in Colostomy Reversal

Roy R. Shen, MD, FACS

Chief of Surgery

Lowell General Hospital, Lowell, MA

## Clinical Challenge

After colostomy reversal, stoma site hernias are common in up to 32% of patients in recent studies<sup>1</sup>. With postoperative wound infection and in obese patients, the incidence may be even higher. While repair of hernias with mesh is almost standard practice, the availability and use of materials for contaminated cases and hernia prevention is limited.

## Procedure Overview

After colostomy take down, the defect was dissected out, identifying the anterior and posterior rectus sheath. Using absorbable suture (VICRYL), the posterior sheath was closed. GORE BIO-A Tissue Reinforcement was trimmed to place between the anterior sheath and rectus muscle where it was secured with four absorbable sutures. The anterior sheath then was closed with interrupted absorbable suture.

## Surgical Considerations

A component of parastomal hernia is frequently seen during laparoscopic colostomy reversal. Even with a two-layer closure technique, the incidence of hernia remains high, especially with postoperative wound infection. In this potentially infected field, a prosthetic field would ideally add strength to the repair without the complications associated with permanent materials, such as postoperative mesh infection requiring mesh removal. GORE BIO-A Tissue Reinforcement, a 3D web of bioabsorbable synthetic polymers, was used to strengthen the primary repair and is replaced by soft tissue as the scaffold absorbs over six months.

## Clinical Results

Several stoma site repairs with GORE BIO-A Tissue Reinforcement have been performed over the last 10 months and to date no hernia has been identified. In cases of wound infection, the product allowed for local treatment and infection resolution without prosthetic removal.

## Surgeon Comments

GORE BIO-A Tissue Reinforcement was easy to use as well as cost effective for stoma closure in serving to strengthen the primary repair. A larger scale study for stoma closure with and without GORE BIO-A Tissue Reinforcement is needed to provide conclusive benefit.

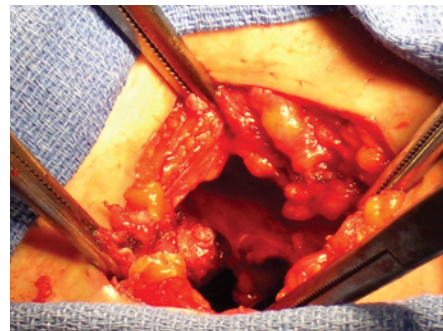


Figure 1. Stoma site defect dissected

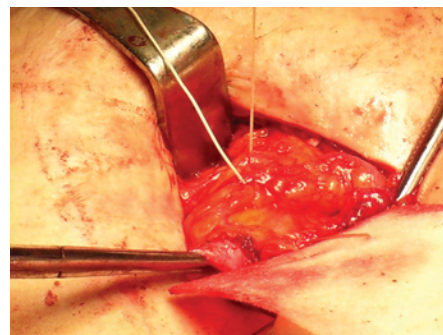


Figure 2. GORE BIO-A Tissue Reinforcement placed between anterior sheath and rectus muscle

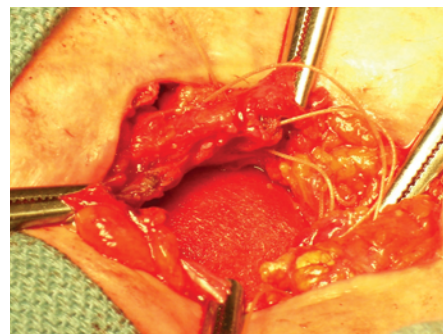


Figure 3. Anterior sheath closed over GORE BIO-A Tissue Reinforcement



**W. L. GORE & ASSOCIATES, INC.**  
Flagstaff, AZ 86004

+65.67332882 (Asia Pacific)  
00800.6334.4673 (Europe)  
800.437.8181 (United States)  
928.779.2771 (United States)

[goremedical.com](http://goremedical.com)

<sup>1</sup>Guzman-Valdivia G. Hernia. 2008 Oct; 12(5):471-4.