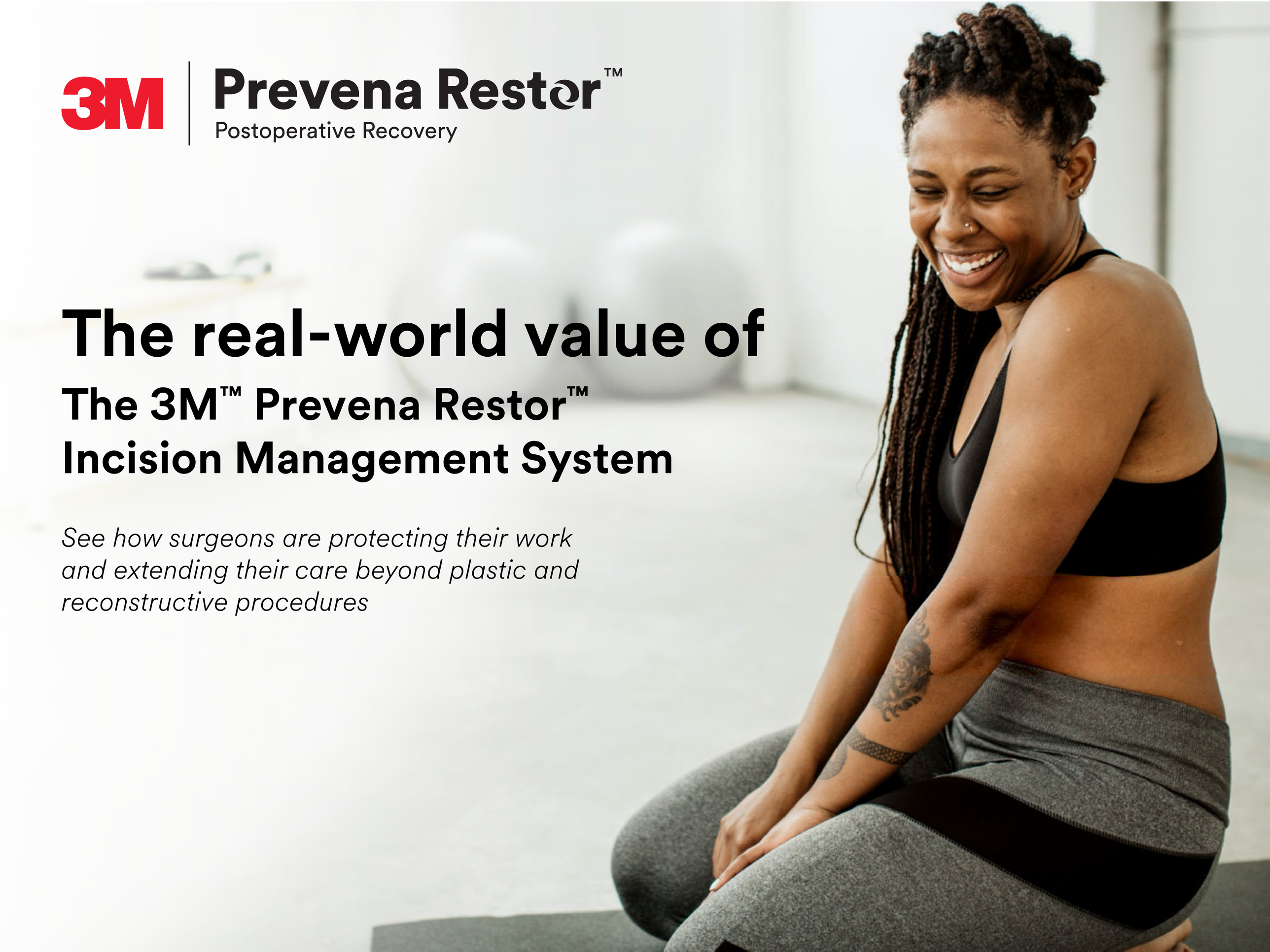
3M | Prevena Restor™
Postoperative Recovery

The real-world value of

The 3M™ Prevena Restor™ Incision Management System

See how surgeons are protecting their work and extending their care beyond plastic and reconstructive procedures



THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Table of contents

THE CHALLENGES OF PLASTIC SURGERY

See the multiple layers of complexity facing today's plastic surgeons — and the costly consequences when complications derail healing.

THE 3M™ PREVENA RESTOR™ SYSTEM

See how the Prevena Restor Incision Management System was purposefully designed to address the ever-increasing challenges of plastic surgery.

THE SCIENCE

See how negative pressure therapy with the Prevena Restor Incision Management System helps optimize the healing process.

THE CASE STUDIES

See real-world examples of successful procedures and recoveries, aided by the Prevena Restor Incision Management System.

THE CHALLENGES OF PLASTIC SURGERY

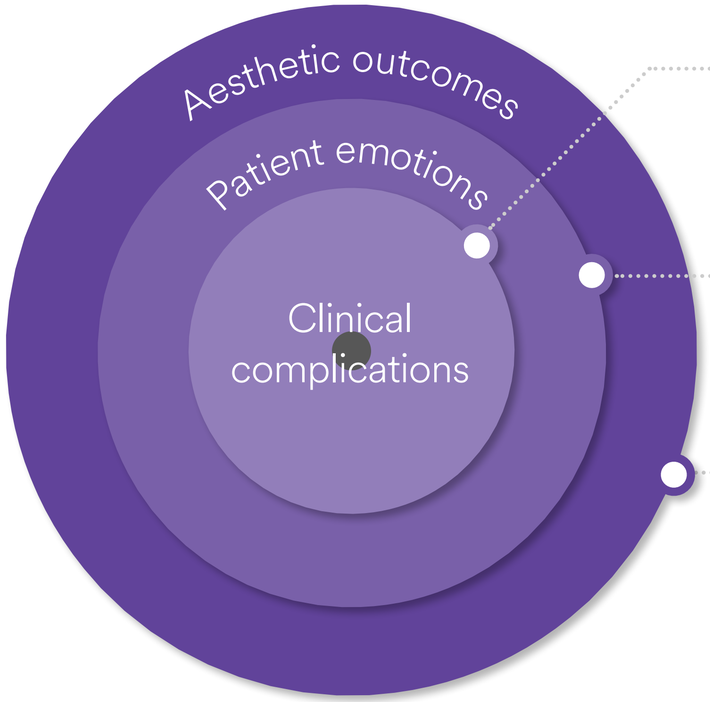
THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

The challenges of plastic surgery

Today's healthcare environment requires all providers to continually refine their practices. In plastic surgery, there are multiple layers of complexity to manage.



- Swelling
- Seroma
- Edema
- Infection

- Nervousness
- Uncertainty
- Stress
- Expectations

- Success is largely in the eyes of the patient

of breast reconstruction patients will experience complications[1]

of breast reconstruction patients will need reoperations due to complications[1]

Revision procedures or addressing complications is costly: A cost analysis of the most common postmastectomy reconstruction methods found that procedures, on average range from

$10,000 to $13,000[2]

Meeting the benchmarks of value-based care while catering to patient needs is more difficult than ever. That's why 3M is dedicated to serving as your partner in better care, by providing new tools to protect your work and improve the patient's healing journey.

3M | Prevena Restor™
Postoperative Recovery

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

The 3M™ Prevena Restor™ Incision Management System was designed with the complex challenges of plastic surgery in mind

Features to improve the recovery experience for both surgeons and patients

Extended therapy time:

Up to **14 days** of continuous negative pressure (with a dressing change required at 7 days)

Expanded coverage area:

Larger dressing delivers therapy to the incision *and* surrounding soft tissue

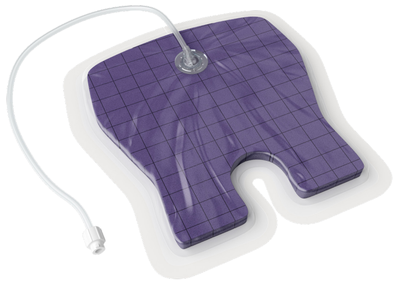
Easy to apply:

Simply peel and place the form-fitting dressing

Precision designed:

Dressing seamlessly conforms to the patient to bolster and stabilize the incision and surrounding soft tissue envelope

3M™ Prevena Restor™ **Arthro•Form™** Dressing



3M™ Prevena Restor™ **Axio•Form™** Dressing

3M™ Prevena Restor™ **Bella•Form™** Dressing

3M | Prevena Restor™
Postoperative Recovery

THE CHALLENGES OF PLASTIC SURGERY

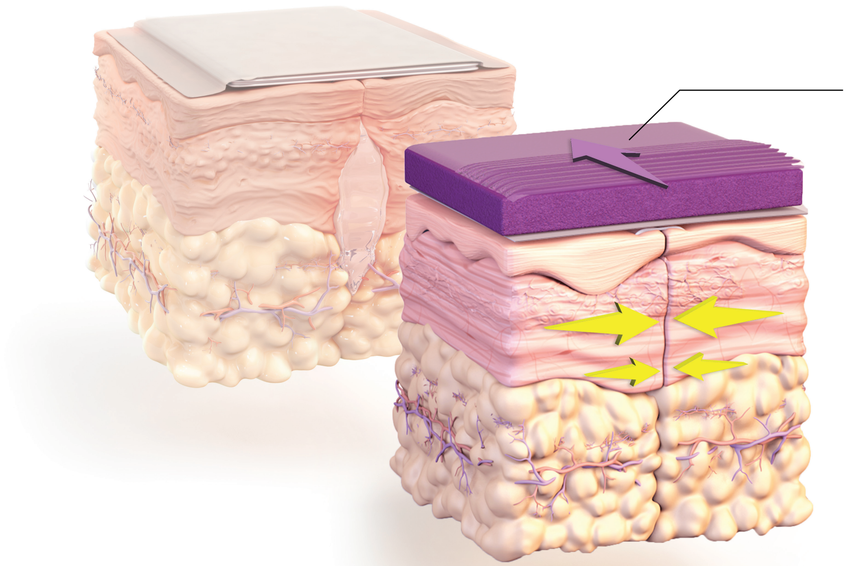
THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

The science of incision management

The 3M™ Prevena Restor™ Incision Management System is built on the proven technology of the original 3M™ Prevena™ Therapy



- Delivers continuous negative pressure therapy (-125mmHg) to the incision site
- Helps hold incision edges together[3]
- Removes fluid and infectious materials[4]
- Creates a barrier to external contaminants[5]
- Reduces edema[6]

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

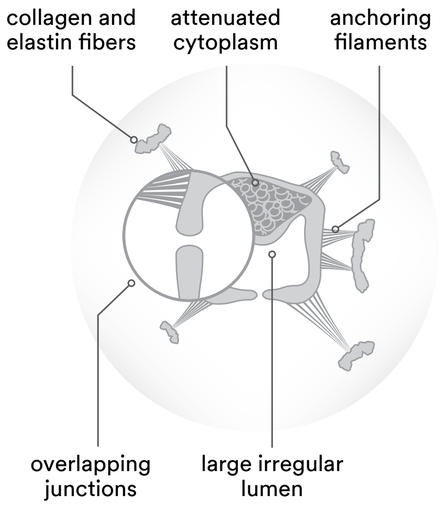
THE CASE STUDIES

The science of swelling reduction

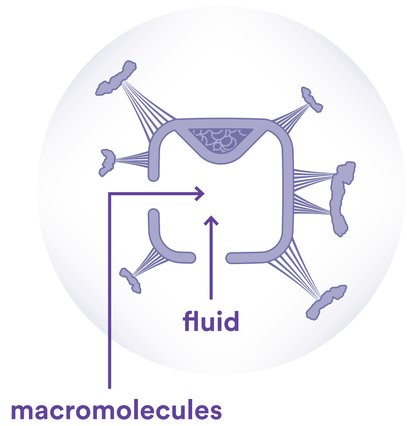
The effects of negative pressure applied to intact skin via 3M™ Prevena™ Therapy were evaluated using Finite Elemental Analysis (FEA). Based on the analysis, it is hypothesized that volumetric expansion may help:[7]

- Expand the tissue beneath the dressing, pulling the tissue open
- Increase pore volume
- Lower local interstitial fluid pressure
- Open lymphatics to allow fluid clearance

Closed terminal lymphatic pore[8]
(overlapping endothelial cells)



Open terminal lymphatic pore[8]
(Separated endothelial cells)



Success stories made possible with the help of the 3M™ Prevena Restor™ Incision Management System

CASE STUDY 1

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction[9]

CASE STUDY 2

Successful management of a complex lower extremity wound[9]

CASE STUDY 3

Optimized healing after pre-pectoral breast reconstruction

CASE STUDY 4

Recovery from bilateral mastectomy

As with any case study, the results and outcomes should not be interpreted as a guarantee or warranty of similar results. Individual results may vary depending on the patient's circumstances and condition.

NOTE: Specific indications, limitations, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. Rx only.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE CASE

THE TREATMENT

THE RESULTS

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE CASE:

A 73-year-old female with symptomatic macromastia and left breast cancer presented to the clinic for oncoplastic surgery and a possible breast reduction with removal of axillary excess skin and fat. The patient was obese with high cholesterol and hypertension, and she had previously undergone surgery for breast cancer.

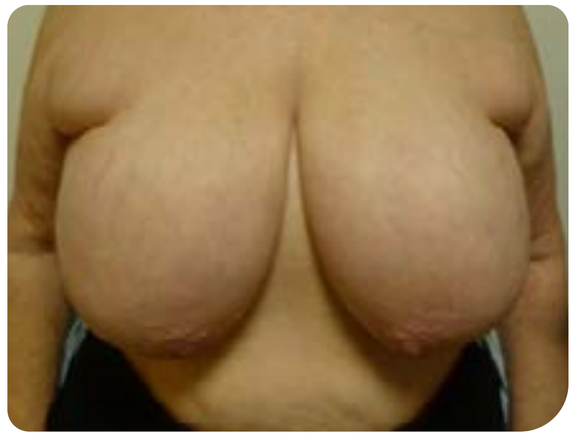


Figure 1. Patient appearance at presentation.

Abhishek Chatterjee, MD, MBA,
Tufts Medical Center, Boston, MA

"This patient was a good candidate for the Prevena Restor Incision Management System given that she had the pre-operative risk factors of obesity and age, which put her at an increased risk."

"I chose the Prevena Restor Incision Management System to help manage the incision as well as the surrounding soft tissue area and allow her to continue her journey with confidence."

"Also, with the Prevena Restor Incision Management System, the wound healing at the skin edges tends to have less edema and bruising, which pleases both the patient and the surgeon."

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE CASE

THE TREATMENT

THE RESULTS

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE TREATMENT:

The patient underwent oncoplastic surgery on her left side, which included a large left sided partial mastectomy with a left sided breast reduction. She also underwent a symmetric right sided breast reduction. Both breast surgeries were closed using inverted-T incisions. Intraoperatively, the left nipple appeared blue secondary to indocyanine blue injection and venous congestion.

Therapy with the 3M™ Prevena Restor™ Bella•Form™ Incision Management System was initiated at -125mmHg over both breasts. A skin protectant was applied to the surrounding skin. The goals of therapy were management of the surgical incision and reduction of tensile forces across incision.

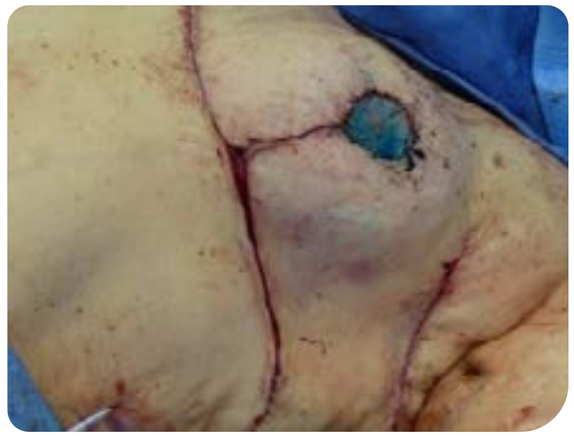


Figure 2. Blue coloring of the left nipple during breast reduction surgery, secondary to indocyanine blue injection and venous congestion.

Abhishek Chatterjee, MD, MBA,
Tufts Medical Center, Boston, MA

When using the Prevena Restor™ Bella•Form™ Dressing, I've observed a substantial decrease in T junction dehiscence rates after breast reductions or oncoplastic reductions in cancer patients. This is important, as it decreases patient and surgeon anxiety related to the potential for wound complications delaying adjuvant cancer treatment, such as radiation. Given this, I rarely have to use additional procedures, such as skin grafting, to treat wound dehiscence, that would certainly cause more anxiety and cost."

3M | Prevena Restor™
Postoperative Recovery

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE CASE

THE TREATMENT

THE RESULTS

Minimizing complications in a comorbid patient after partial mastectomy and breast reduction

THE RESULTS:

The patient was discharged home the day of surgery. After 7 days, 3M™ Prevena Restor™ Therapy was discontinued, with the goals of therapy having been achieved.

The incision had healed well and there were no signs of seroma or other postoperative complications. Upon follow-up at 2 months post-surgery, the incisions remained closed.

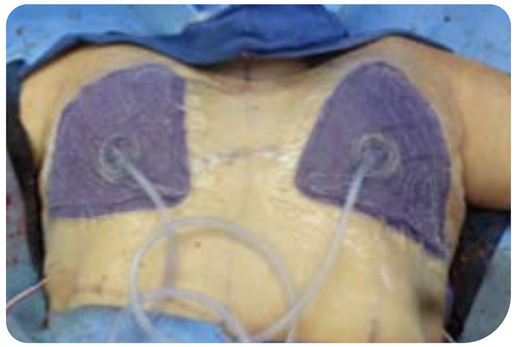


Figure 3. Application of therapy using 3M™ Prevena Restor™ Bella•Form™ Incision Management System over both breasts.

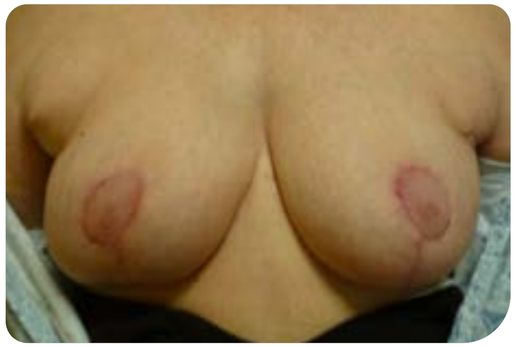


Figure 4. The incisions remained closed on both breasts at 2 months post surgery.

Abhishek Chatterjee, MD, MBA,
Tufts Medical Center, Boston, MA

I usually worry about T junction wound dehiscence and seroma with comorbid patients, and I was pleasantly surprised that I avoided these in this patient."

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Successful management of a complex lower extremity wound

THE CASE

THE TREATMENT

THE RESULTS

Successful management of a complex lower extremity wound

THE CASE:

A 25-year-old female presented with an actively draining Morel-Lavallée lesion of the left lateral thigh, sustained after being struck by a motor vehicle. She was initially evaluated and admitted for the avulsion injury approximately two weeks prior, and had a drain placed at that time. However, due to issues with compliance, she had not been re-evaluated since, and ultimately presented with a suspected infection of her left lower extremity.

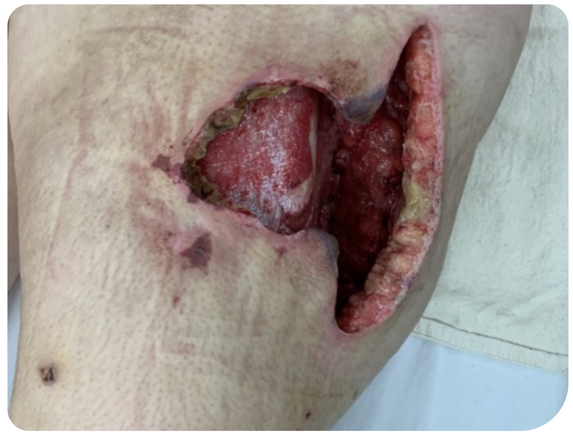


Figure 1. Initial presentation of the infected medial left leg wound.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Successful management of a complex lower extremity wound

THE CASE

THE TREATMENT

THE RESULTS

Successful management of a complex lower extremity wound

THE TREATMENT:

The patient was placed on intravenous cefazolin and underwent several rounds of excisional debridement and irrigation. The patient was then managed operatively by a plastic surgery service. This care included three rounds of tissue advancement, followed by a seven-day course of NPWTi-d. Cycles consisted of normal saline instillation with a one-second dwell time, followed by six hours of continuous negative pressure at −125 mm Hg. The patient was then taken back for a final round of reconstruction with tissue advancement. A split-thickness skin graft (STSG) was used at that time to cover the remaining area of the wound that the advancement could not close. A seven-day course of ciNPT with the 3M™ Prevena Restor™ Bella•Form™ System was then applied to manage the incisions and bolster the graft. This was followed by simple dressing changes several times weekly for four weeks.

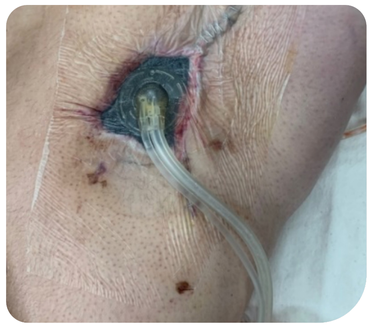


Figure 2. Application of irrigating negative pressure therapy.

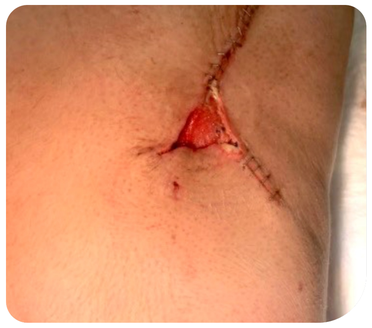


Figure 3. Pre-closure of the donor site with a STSG.

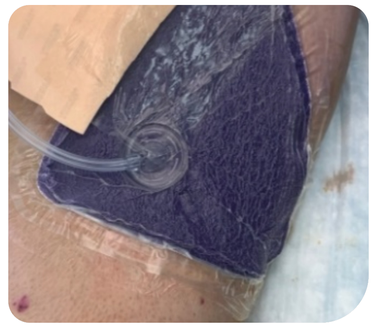


Figure 4. Application of closed incision negative pressure.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Successful management of a complex lower extremity wound

THE CASE

THE TREATMENT

THE RESULTS

Successful management of a complex lower extremity wound

THE RESULTS:

After seven days of ciNPT, the patient was evaluated in the clinic and the 3M™ Prevena Restor™ Bella•Form™ dressing was removed. On removal of the dressings, the skin graft appeared viable. The wound edges also appeared well-approximated, dry, and intact. Therefore, it was decided to discontinue treatment with the 3M™ Prevena Restor™ Incision Management System.

Non-adherent silicone dressings (3M™ Adaptic™ Non-Adhering Dressing) were placed over the skin graft recipient site, followed by abdominal pads. These were secured in place with an adhesive tape. The patient returned to the clinic once a week for wound evaluation and dressing changes, while also performing dressing changes frequently at home.

At four weeks postoperatively, the wound appeared well-approximated with normal scabbing, so staples were removed. At six weeks post-STSG placement and delayed primary closure, the wound remained well-healed, with minimal scabbing.

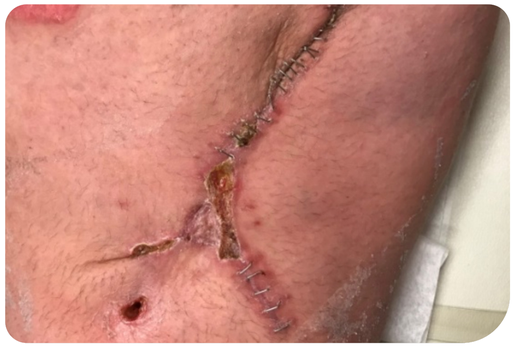


Figure 5. Wound at four weeks post-operatively.

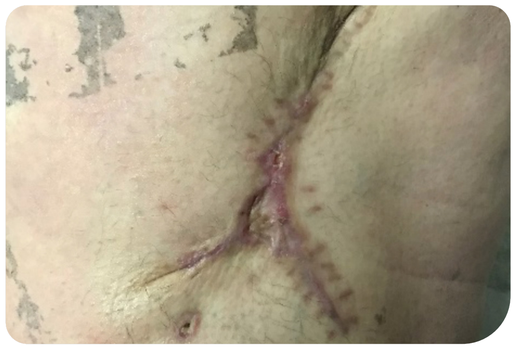


Figure 6. Wound at six weeks post-operatively.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Optimized healing after pre-pectoral breast reconstruction

THE CASE

THE TREATMENT

THE RESULTS

Optimized healing after pre-pectoral breast reconstruction

THE CASE:

A 42-year-old female presented to the surgical clinic after a prior diagnosis of invasive ductal carcinoma of the right breast. The patient had no concomitant comorbidities. Her medical history included asthma, for which she had no recent use of her rescue inhaler or hospitalization.

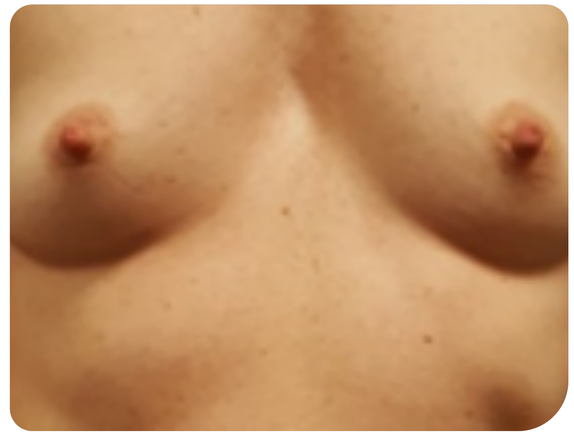


Figure 1. Patient at presentation after diagnosis of invasive ductal carcinoma of the right breast.

Regina M. Fearmonti, MD;
Alon Aesthetics/Fearmonti Plastic Surgery, San Antonio, Texas

Breast reconstruction is emotional. Any wound healing issues, or seeing the wound immediately post-op, may add stress for the patient. It has been my observation that the Prevena Restor Incision Management System may help to alleviate some of those factors."

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Optimized healing after pre-pectoral breast reconstruction

THE CASE

THE TREATMENT (1 OF 2)

THE RESULTS

Optimized healing after pre-pectoral breast reconstruction

THE TREAMENT:

The patient underwent a bilateral, nipple-areolar-sparing mastectomy. The mastectomy produced two incisions at the inframammary folds. Bilateral pre-pectoral direct-to-implant reconstruction was performed with round silicone implants, and the implants were covered with an acellular dermal matrix. Bilateral drains were inserted and positioned laterally. Closure of the surgical incisions was achieved via subcuticular suturing.

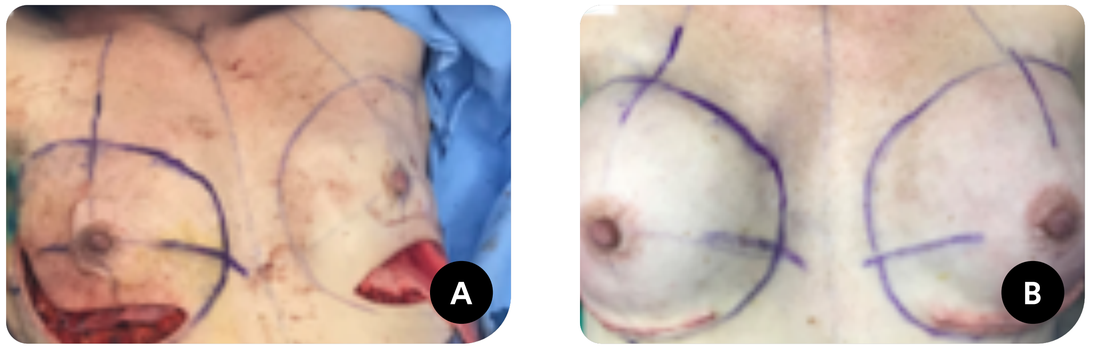


Figure 2. Bilateral, nipple-areolar-sparing mastectomy. **A.** Two surgical incisions at the inframammary folds resultant of bilateral mastectomy. **B.** Closure of bilateral incisions via subcuticular suturing.

Regina M. Fearmonti, MD;
Alon Aesthetics/Fearmonti Plastic Surgery, San Antonio, Texas

Prepectoral direct-to-implant reconstruction means more potential tension on the mastectomy skin flaps.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Optimized healing after pre-pectoral breast reconstruction

THE CASE

THE TREATMENT (2 OF 2)

THE RESULTS

Optimized healing after pre-pectoral breast reconstruction

THE TREATMENT (CONTINUED):

The 3M™ Prevena Restor™ Bella•Form™ Incision Management System was used to help reduce tensile force across the closed incisions, manage the incision and surrounding area, and to help hold the edges of the closed incisions together. The 3M™ Prevena Restor™ Bella•Form™ Dressing was placed along the inframammary fold and mastectomy flap incisions. The dressing was positioned so the drains exited outside of the perimeter of the dressing. The 3M™ Prevena Restor™ Therapy Platform applied -125mmHg of subatmospheric pressure for 6 days.

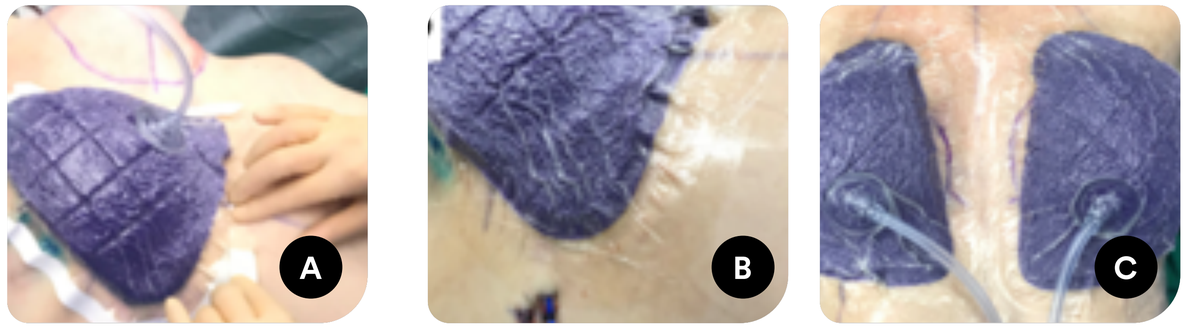


Figure 3. Application of Prevena Restor™ Bella•Form™ Incision Management System. **A.** Placement of Prevena Restor™ Bella•Form™ Dressing (21cm x 19cm) along the inframammary fold and mastectomy flap incisions. **B.** Dressing placement did not obstruct drains. **C.** The initiation of Prevena Restor Therapy (-125mmHg) to the closed incisions.

Regina M. Fearmonti, MD;
Alon Aesthetics/Fearmonti Plastic Surgery, San Antonio, Texas

The Prevena Restor Incision Management System offloads tension from delicate mastectomy skin flaps.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Optimized healing after pre-pectoral breast reconstruction

THE CASE

THE TREATMENT

THE RESULTS (1 OF 2)

Optimized healing after pre-pectoral breast reconstruction

THE RESULTS:

On postoperative day 6, the patient returned to the clinic for a follow-up visit. The 3M™ Prevena Restor™ Bella•Form™ Incision Management System was removed to evaluate the reconstructed breasts, tissue integrity, and the incisions. Upon dressing removal, some skin wrinkling was noted, which was temporary and did not cause any skin breakdown. Following the evaluation, the Prevena Restor™ Bella•Form™ Incision Management System was reapplied to manage the incision, reduce tensile force across the closed incision, and to help hold the edges of the closed incision together.

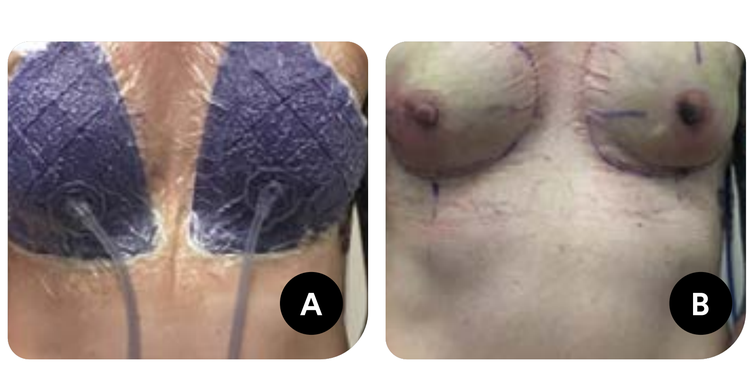


Figure 4. POD 6 postoperative follow-up visit. Prevena Restor™ Bella•Form™ Incision Management System was reapplied. **A.** Patient before the removal of 3M™ Prevena Restor™ Bella•Form™ Dressing. **B.** Reconstructed breasts after removal of Prevena Restor™ Bella•Form™ Dressing and before the reapplication of 3M™ Prevena Restor™ Therapy.

Regina M. Fearmonti, MD;
Alon Aesthetics/Fearmonti Plastic Surgery, San Antonio, Texas

Added comfort and security in the immediate post-op period is much appreciated. The wound is supported and bolstered during the most critical phases of the healing process.”

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Optimized healing after pre-pectoral breast reconstruction

THE CASE

THE TREATMENT

THE RESULTS (2 OF 2)

Optimized healing after pre-pectoral breast reconstruction

THE RESULTS (CONTINUED):

On postoperative day 7, the patient returned to the clinic and the dressing was removed due to loss of seal, as the patient was diaphoretic during the evening. Although erythema was present, this was not caused by the dressing. The patient was transitioned to a cotton brassiere with no pressure, as well as prescribed topical silver sulfadiazine and oral ciprofloxacin.

The drains were removed after 10 days.

At postoperative day 65, the incisions were completely healed, and both nipples were viable.

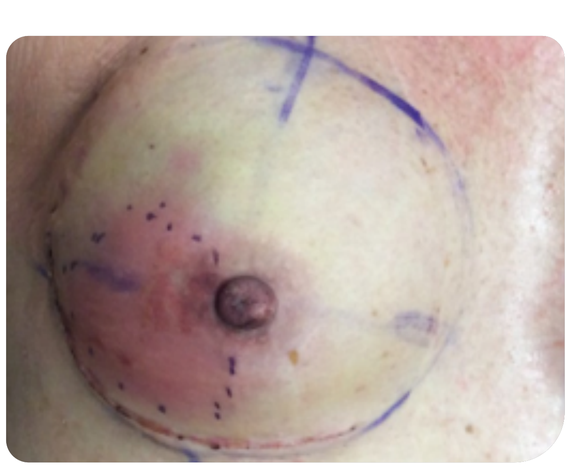


Figure 5. On POD 7, erythema was noted bilaterally on the reconstructed breasts after removal of 3M™ Prevena Restor™ Bella•Form™ Dressing.

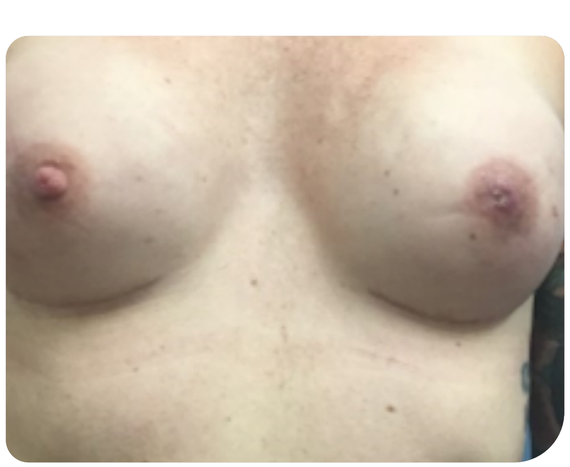


Figure 6. POD 65, incisions were completely healed, and both nipples were viable.

Regina M. Fearmonti, MD;
Alon Aesthetics/Fearmonti Plastic Surgery, San Antonio, Texas

I was pleased with the healing process. By the time the dressing was removed, there was no visible ecchymosis, and post-op swelling had greatly resolved."

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Recovery from bilateral mastectomy

THE CASE

THE TREATMENT

THE RESULTS

Recovery from bilateral mastectomy

THE CASE:

A 50-year-old female patient presented to the surgical clinic requiring bilateral mastectomy for breast cancer. She had no notable prior medical history.

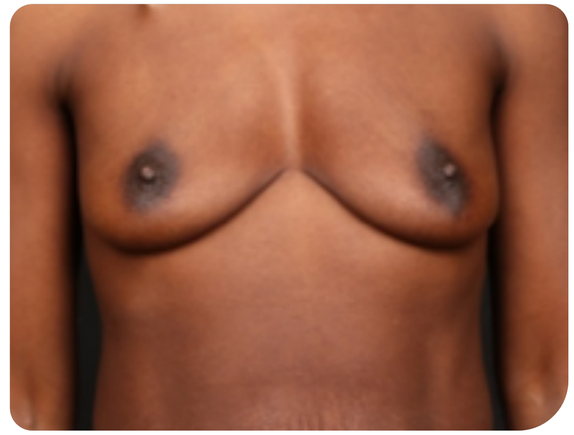


Figure 1. Breast appearance pre-mastectomy.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Recovery from bilateral mastectomy

THE CASE

THE TREATMENT

THE RESULTS

Recovery from bilateral mastectomy

THE TREATMENT:

The patient underwent a bilateral mastectomy with immediate reconstruction, resulting in a 7-cm inframammary incision on each breast. The incisions were sutured closed over drains, and the patient was administered cephalexin for prophylactic antibiotic control.

3M™ Prevena Restor™ Therapy was initiated using the 3M™ Prevena Restor™ Bella•Form™ Dressing, which covered each inframammary incision and the entirety of each breast. Negative pressure was applied at -125mmHg.

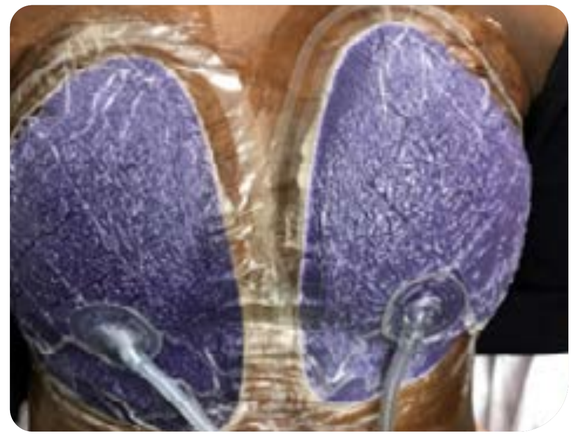


Figure 2. Application of Prevena Restor Therapy with Prevena Restor™ Bella•Form™ Dressing postmastectomy.

THE CHALLENGES OF PLASTIC SURGERY

THE 3M™ PREVENA RESTOR™ INCISION MANAGEMENT SYSTEM

THE SCIENCE

THE CASE STUDIES

Recovery from bilateral mastectomy

THE CASE

THE TREATMENT

THE RESULTS

Recovery from bilateral mastectomy

THE RESULTS

The patient was discharged home the day after surgery. After 6 days, 3M™ Prevena Restor™ Therapy was discontinued, and the incision remained closed. When the patient returned for follow-up on postoperative day 9, there were no complications and the drain was removed. At 30 days post-surgery, the incision remained closed, and there was no incidence of surgical site infection, seroma, or any other complication.

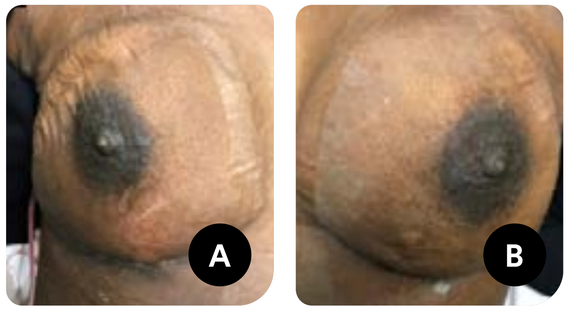


Figure 3. Appearance after 6 days of Prevena Restor Therapy with 3M™ Prevena Restor™ Bella•Form™ Dressing. **A.** Right breast. **B.** Left breast.

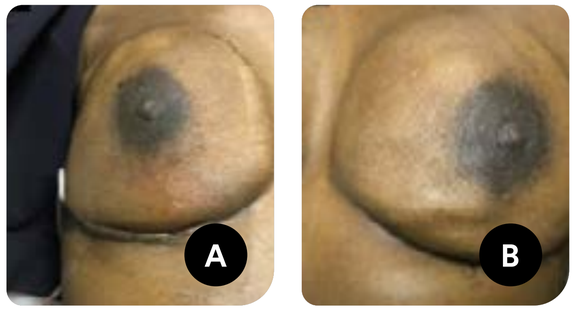


Figure 4. Appearance on postoperative day 9. **A.** Right breast. **B.** Left breast.

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