3M | V.A.C.® Therapy

Clinical Guidelines

A reference source for clinicians

Rx Only

This copy supersedes any previous revision. For revision level and contact information, refer to back cover of these guidelines.

These guidelines are not intended as a guarantee of results, outcome or performance of the 3M™ V.A.C.® Therapy System. They are recommendations to help clinicians establish patient-specific treatment protocols. As with any application, please consult the patient's treating physician about individual conditions and treatment, and follow all applicable instructions for use and labeling for product use and operation.

Always consult sections of this guideline along with the applicable instructions for use, labeling and safety information sheet for the specific 3M™ V.A.C.® Therapy Unit and dressing type before placing a V.A.C.® Therapy System on a patient.

For a medical emergency, contact your local emergency number. If you have any questions about operation or use, contact your local 3M representative.
For further information, visit 3M.com/medical or call 1-800-275-4524 (US only).

CAUTION: Federal (U.S.A.) law restricts these devices to sale/rental by or on the order of a physician.

Rx Only

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Introduction

3M™ V.A.C.® Therapy is an advanced wound healing therapy that can be readily integrated into the clinician's wound healing practice, to help optimize patient care. This advanced wound healing technology is coupled with microprocessor-controlled therapy units, specialized dressings and 24 hours a day, 7 days a week technical support.

The V.A.C.® Therapy platform includes a collection of products:

- 3M™ ActiV.A.C.™ Therapy System
- 3M™ ActiV.A.C.™ Therapy System with iOn Progress™ Remote Therapy Monitoring
- 3M™ V.A.C.® Rx4 Therapy System
- 3M™ V.A.C.® Simplicity Therapy System
- 3M™ V.A.C.® Ulta Therapy System
- 3M™ V.A.C.® Via Therapy System

These integrated wound management systems are designed to deliver negative pressure (a vacuum) to promote wound healing by preparing the wound bed for closure, reducing edema, promoting granulation tissue formation and perfusion and by removing exudate and infectious materials.

The components of the V.A.C.® Therapy System work as an integrated product to optimize both the delivery and the benefits of negative pressure wound therapy. An open pore reticulated polyurethane foam (3M™ V.A.C.® Granufoam™ Dressing, 3M™ V.A.C.® Granufoam Silver™ Dressing), or polyvinyl alcohol foam (3M™ V.A.C. Whitefoam™ Dressing) is cut to fit the wound, then covered with an adhesive drape. There are two types of drape available: the polyurethane acrylic 3M™ V.A.C.® Drape as part of V.A.C.® Granufoam™ Dressing Kits and 3M™ Dermatac™ Drape, the silicone-acrylic hybrid combination drape available in Dermatac Drape and V.A.C.® Granufoam™ Dressing Kits. The open cells of the foam enable equal distribution of the negative pressure across the surface of the wound, while 3M™ V.A.C.® Tubing transfers accumulated fluids to the 3M™ V.A.C.® Canister. The software-controlled therapy unit applies negative pressure to the wound bed. The user can select continuous or intermittent/Dynamic Pressure Control™ Therapy on the therapy unit, depending upon wound type and the needs of each patient. SensaT.R.A.C.™ (Therapeutic Regulated Accurate Care) Technology delivers, monitors and helps to maintain target pressure and relays signals to the therapy unit. The safety features of the V.A.C.® Therapy System include alarms to maintain optimal therapy settings.

3M product availability varies by market. Consult your 3M Representative for specific product details.

These guidelines do not address application procedures or clinical considerations specific to the V.A.C.® Ulta Therapy System when using 3M™ Veraflo™ (instillation of topical solutions), 3M™ Prevena™ or 3M™ AbThera™ Open Abdomen Negative Pressure Therapy modes. Contact your 3M Representative and consult product specific instructions for use and labeling for guidance on use with application of these therapies.

When managing incisions using the 3M™ Prevena™ Incision Management System, please refer to the Prevena Clinical Guidelines and IFU guidelines.

The 3M™ Snap™ Therapy System is a mechanical, disposable option for ambulatory patients who would benefit from the application of negative pressure, particularly those with small difficult to dress wounds. For more information, please refer to the Snap Therapy System Clinical Guidelines or Instructions For Use.

Points to Remember When Using 3M™ V.A.C.® Therapy

- Keep V.A.C.® Therapy on for at least 22 hours in a 24-hour period. Do not leave the V.A.C.® Dressing in place if the therapy unit is switched off for more than two hours in 24.
- Ensure that the patient/wound is a suitable candidate for V.A.C.® Therapy.
- Read and follow all user instructions and safety information that accompany 3M products.
- Ensure accuracy of diagnosis and address all underlying and associated co-morbidities.
- Ensure appropriate V.A.C.® Dressing selection and suitable indication-specific V.A.C.® Dressings are used.
- Do not place V.A.C.® Granufoam™ Dressings or V.A.C. Whitefoam Dressings directly over exposed organs, blood vessels, anastomotic sites and/or nerves.
- Ensure appropriate debridement prior to treatment.
- Do not tightly pack V.A.C.® Dressings into the wound; place dressings gently into the wound.
- Ensure a good drape seal has been achieved. The ActiV.A.C. and V.A.C.® Ulta Therapy Systems offer a Seal Check™ Feature that provides assistance in identifying leaks.
- Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.
- Monitor continuously and check and respond to alarms.
- When dressing is removed, count the number of foam pieces removed, correlate the count with the number of pieces previously placed in the wound and verify the complete removal of all foam dressing pieces.
- If no response or improvement in the wound is observed within two weeks, reassess the treatment plan.
- Seek advice/support from local 3M representative as needed.
- **Follow Standard Precautions.**

3M™ V.A.C.® Therapy Safety Information

Disposable components of the V.A.C.® Therapy System are provided as indicated on the associated product labeling. V.A.C.® Canisters are packaged sterile or fluid path sterile and are latex-free. All disposable components of the V.A.C.® Therapy System are for single use only. To help ensure safe and effective use, the V.A.C.® Granufoam™ Dressing, V.A.C.® Granufoam Silver™ Dressing and V.A.C. Whitefoam Dressings are to be used only with V.A.C.® Therapy Units.

Re-use of disposable components may result in wound contamination, infection and/or failure of the wound to heal.

The decision to use clean versus sterile/aseptic technique is dependent upon wound pathophysiology, physician/healthcare provider preference, and institutional protocol.

Important: As with any prescription medical device, failure to consult a physician and carefully read and follow all therapy unit and dressing instructions and safety information prior to each use may lead to improper product performance and the potential for serious or fatal injury. Do not adjust therapy unit settings or perform therapy application without directions from/or supervision by the treating physician.

Indications for Use

The ActiV.A.C., V.A.C.® Simplicity and V.A.C.® Via Negative Pressure Wound Therapy Systems are integrated wound management systems for use in acute, extended and home care settings. The V.A.C.® Ulta and V.A.C.® Rx4 Negative Pressure Wound Therapy Systems are integrated wound management systems for use in acute care settings and other professional healthcare environments where product use is conducted by or under the supervision of a qualified healthcare professional.

When used on open wounds, they are intended to create an environment that promotes wound healing by secondary or tertiary (delayed primary) intention by preparing the wound bed for closure, reducing edema, promoting granulation tissue formation and perfusion and by removing exudate and infectious material. Open wound types include: chronic, acute, traumatic, subacute and dehisced wounds, partial-thickness burns, ulcers (such as diabetic, pressure or venous insufficiency), flaps and grafts.

The V.A.C.® Granufoam Silver™ Dressing is an effective barrier to bacterial penetration and may help reduce infection in the above wound types.

When used on closed surgical incisions, they are intended to manage the environment of surgical incisions that continue to drain following sutured or stapled closure by maintaining a closed environment and removing exudates via the application of negative pressure wound therapy.

Contraindications

- **Do not place foam dressings of the V.A.C.® Therapy System directly in contact with exposed blood vessels, anastomotic sites, organs or nerves.**

  Note: *Refer to Warnings section for additional information concerning Bleeding.*

- V.A.C.® Therapy is contraindicated for patients with:
  - Malignancy in the wound
  - Untreated osteomyelitis

    Note: *Refer to **Warnings** section for **Osteomyelitis** information.*
  - Non-enteric and unexplored fistulas
  - Necrotic tissue with eschar present

    Note: *After debridement of necrotic tissue and complete removal of eschar, V.A.C.® Therapy may be used.*
  - Sensitivity to silver (V.A.C.® Granufoam Silver™ Dressing only)

Warnings

Bleeding: With or without using V.A.C.® Therapy, certain patients are at high risk of bleeding complications. The following types of patients are at increased risk of bleeding, which, if uncontrolled, could be potentially fatal:

- Patients who have weakened or friable blood vessels or organs in or around the wound as a result of, but not limited to:
  - Suturing of the blood vessel (native anastamoses or grafts)/organ
  - Infection
  - Trauma
  - Radiation
- Patients without adequate wound hemostasis
- Patients who have been administered anticoagulants or platelet aggregation inhibitors
- Patients who do not have adequate tissue coverage over vascular structures

If V.A.C.® Therapy is prescribed for patients who have an increased risk of bleeding complications, they should be treated and monitored in a care setting deemed appropriate by the treating physician.

If active bleeding develops suddenly or in large amounts during V.A.C.® Therapy, or if frank (bright red) blood is seen in the tubing or in the canister, immediately stop V.A.C.® Therapy, leave dressing in place, take measures to stop the bleeding and seek immediate medical assistance. The V.A.C.® Therapy Units and dressings should not be used to prevent, minimize or stop vascular bleeding.

- **Protect Vessels and Organs:** All exposed or superficial vessels and organs in or around the wound must be completely covered and protected prior to the administration of V.A.C.® Therapy.

  Always ensure that V.A.C.® Dressing foam does not come in direct contact with vessels or organs. Use of a thick layer of natural tissue should provide the most effective protection. If a thick layer of natural tissue is not available or is not surgically possible, multiple layers of meshed non-adherent material or bio-engineered tissue (page 24) may be considered as an alternative, if deemed by the treating physician to provide a complete protective barrier. If using non-adherent materials (page 24), ensure they are secured in a manner that will maintain their protective position throughout therapy.

  Consideration should also be given to the negative pressure setting and therapy mode used when initiating therapy.

  Caution should be taken when treating large wounds that may contain hidden vessels which may not be readily apparent. The patient should be closely monitored for bleeding in a care setting deemed appropriate by the treating physician.

- **Infected Blood Vessels:** Infection may erode blood vessels and weaken the vascular wall which may increase susceptibility to vessel damage through abrasion or manipulation. **Infected blood vessels are at risk of complications, including bleeding, which, if uncontrolled, could be potentially fatal. Extreme caution should be used when V.A.C.® Therapy is applied in close proximity to infected or potentially infected blood vessels.** (Refer to **Protect Vessels and Organs** section). The patient should be closely monitored for bleeding in a care setting deemed appropriate by the treating physician.

- **Hemostasis, Anticoagulants and Platelet Aggregation Inhibitors:** Patients without adequate wound hemostasis have an increased risk of bleeding, which, if uncontrolled, could be potentially fatal. These patients should be treated and monitored in a care setting deemed appropriate by the treating physician.

  Caution should be used in treating patients on doses of anticoagulants or platelet aggregation inhibitors thought to increase their risk for bleeding (relative to the type and complexity of the wound). Consideration should be given to the negative pressure wound therapy setting and therapy mode used when initiating therapy.

- **Hemostatic Agents Applied at the Wound Site:** Non-sutured hemostatic agents (for example, bone wax, absorbable gelatin sponge or spray wound sealant) may, if disrupted, increase the risk of bleeding, which, if uncontrolled, could be potentially fatal. Protect against dislodging such agents. Consideration should be given to the negative pressure wound therapy setting and therapy mode used when initiating therapy.

- **Sharp Edges:** Bone fragments or sharp edges could puncture protective barriers, vessels or organs, causing injury. Any injury could cause bleeding, which, if uncontrolled, could be potentially fatal. Beware of possible shifting in the relative position of tissues, vessels or organs within the wound that might increase the possibility of contact with sharp edges. Sharp edges or bone fragments must be covered or eliminated from the wound area, to prevent them from puncturing blood vessels or organs before the application of V.A.C.® Therapy. Where possible, completely smooth and cover any residual edges to decrease the risk of serious or fatal injury, should shifting of structures occur. Use caution when removing dressing components from the wound so that wound tissue is not damaged by unprotected sharp edges.

1000 mL Canister and the Risk of Excessive Fluid Loss, Including Blood: Consider the size and weight of the patient, patient condition (patients with a high risk of bleeding or on patients unable to tolerate loss of fluid volume, including children or the elderly), wound type, monitoring capability and care setting when using the 1000 mL canister. Patients should be closely monitored for excessive fluid loss and dehydration, as well as frank blood in the canister. The 1000 mL canister is recommended for acute care use only.

- **V.A.C.® Rx4 Therapy Unit:** The V.A.C.® Rx4 Therapy Unit provides four independent therapy channels that may accomodate either 500 or 1000 mL canisters. **When using multiple channels on multiple wounds, DO NOT USE the 1000 mL canister for patients at high risk for excessive fluid loss.**

Infected Wounds: Infected wounds should be monitored closely and may require more frequent dressing changes than non-infected wounds, dependent upon factors such as wound conditions and treatment goals. Refer to dressing application instructions (found in V.A.C.® Dressing cartons) for details regarding dressing change frequency. As with any wound treatment, clinicians and patients/caregivers should frequently monitor the patient's wound, periwound tissue and exudate for signs of infection, worsening infection or other complications. Some signs of infection are fever, tenderness, redness, swelling, itching, rash, increased warmth in the wound or periwound area, purulent discharge or strong odor. Infection can be serious, and can lead to complications such as pain, discomfort, fever, gangrene, toxic shock, septic shock and/or fatal injury. Some signs or complications of systemic infection are nausea, vomiting, diarrhea, headache, dizziness, fainting, sore throat with swelling of the mucus membranes, disorientation, high fever, refractory and/or orthostatic hypotension or erythroderma (a sunburn-like rash). **If there are any signs of the onset of systemic infection or advancing infection at the wound site, contact the treating physician immediately to determine if V.A.C.® Therapy should be discontinued.** For wound infections relating to blood vessels, please also refer to the section titled **Infected Blood Vessels.**

Infected Wounds with V.A.C.® Granufoam Silver™ Dressing: In the event of clinical infection, V.A.C.® Granufoam Silver™ Dressing is not intended to replace the use of systemic therapy or other infection treatment regimens. V.A.C.® Granufoam Silver™ Dressing may be used to provide a barrier to bacterial penetration.

Osteomyelitis: V.A.C.® Therapy should NOT be initiated on a wound with untreated osteomyelitis. Consideration should be given to thorough debridement of all necrotic, non-viable tissue, including infected bone (if necessary), and appropriate antibiotic therapy. Protect intact bone with a single layer of meshed non-adherent material (page 24).

Protect Tendons, Ligaments and Nerves: Tendons, ligaments and nerves should be protected to avoid direct contact with V.A.C.® Dressing foam. These structures may be covered with natural tissue, meshed non-adherent material or bio-engineered tissue (page 24) to help minimize risk of desiccation or injury.

Foam Placement: Always use V.A.C.® Dressings from sterile packages that have not been opened or damaged. Do not place any foam dressing into blind/unexplored tunnels. The V.A.C. Whitefoam Dressing may be more appropriate for use with explored tunnels. Do not force foam dressings into any area of the wound, as this may damage tissue, alter the delivery of negative pressure wound therapy or hinder exudate and foam removal. Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.

V.A.C.® Dressing foam (except V.A.C.® Granufoam Silver™ Dressing) is radiolucent, not detectable on X-Ray.

Foam Removal: V.A.C.® Dressing foam is not bioabsorbable. **Always count the total number of pieces of foam removed from the wound and ensure the same number of foam pieces are removed as were placed.** Foam left in the wound for greater than the recommended time period may foster ingrowth of tissue into the foam, create difficulty in removing foam from the wound or lead to infection or other adverse events. If dressing adheres to wound consider introducing sterile water or normal saline into the dressing, waiting 15 - 30 minutes, then gently removing the dressing from the wound. Regardless of treatment modality, disruption of the new granulation tissue during any dressing change may result in bleeding at the wound site. Minor bleeding may be observed and considered expected. However, patients with increased risk of bleeding, as described in the **Bleeding** section, have a potential for more serious bleeding from the wound site. As a precautionary step, consider using V.A.C. Whitefoam or meshed non-adherent material (page 24) underneath the V.A.C.® Granufoam™ Dressing to help minimize the potential for bleeding at dressing removal in these patients. **If significant bleeding develops, immediately discontinue the use of the V.A.C.® Therapy System, take measures to stop the bleeding and do not remove the foam dressing until the treating physician or surgeon is consulted. Do not resume the use of the V.A.C.® Therapy System until adequate hemostasis has been achieved, and the patient is not at risk for continued bleeding.**

Keep V.A.C.® Therapy On: Never leave a V.A.C.® Dressing in place without active V.A.C.® Therapy for more than two hours. If therapy is off for more than two hours, remove the old dressing and irrigate the wound. Either apply a new V.A.C.® Dressing from an unopened sterile package and restart V.A.C.® Therapy, or apply an alternative dressing at the direction of the treating physician.

Acrylic Adhesive and Silicone Layer: The V.A.C.® Drape has an acrylic adhesive coating, which may present a risk of an adverse reaction in patients who are allergic or hypersensitive to acrylic adhesives. The Dermatac Drape has an acrylic adhesive coating and a silicone layer, which may present a risk of an adverse reaction in patients who are allergic or hypersensitive to acrylic adhesives or silicone. If a patient has a known allergy or hypersensitivity to such materials, do not use the V.A.C.® Therapy System. If any signs of allergic reaction or hypersensitivity develop, such as redness, swelling, rash, urticaria or significant pruritus, discontinue use and consult a physician immediately. If bronchospasm or more serious signs of allergic reaction appear, seek immediate medical assistance.

Defibrillation: Remove the V.A.C.® Dressing if defibrillation is required in the area of dressing placement. Failure to remove the dressing may inhibit transmission of electrical energy and/or patient resuscitation.

Magnetic Resonance Imaging (MRI) - V.A.C.® Therapy Unit: The V.A.C.® Therapy Unit is **MR unsafe**. Do not take the V.A.C.® Therapy Unit into the MR environment.

Magnetic Resonance Imaging (MRI) - V.A.C.® Dressings: V.A.C.® Dressings can typically remain on the patient with minimal risk in an MR environment, assuming that use of the V.A.C.® Therapy System is not interrupted for more than two hours (refer to **Keep V.A.C.® Therapy On** section). The V.A.C.® Granufoam Silver™ Dressing has been shown to pose no known hazards in an MR environment with the following conditions of use:

- Static magnetic field of 3 Tesla or less,
- Spatial gradient field of 720 Gauss/cm or less
- Maximum whole-body-averaged specific absorption rate (SAR) of 3 W/kg for 15 minutes of scanning.

Non-clinical testing under these same conditions produced a temperature rise of <0.4°C. MR image quality may be compromised if the area of interest is in the same area or relatively close to the position of the V.A.C.® Granufoam Silver™ Dressing.

Hyperbaric Oxygen Therapy (HBO): Do not take the V.A.C.® Therapy Unit into a hyperbaric oxygen chamber. The V.A.C.® Therapy Unit is not designed for this environment, and **should be considered a fire hazard**. After disconnecting the V.A.C.® Therapy Unit, either (i) replace the V.A.C.® Dressing with another HBO compatible material during the hyperbaric treatment, or (ii) cover the unclamped end of the V.A.C.® Tubing with dry gauze. For HBO therapy, the V.A.C.® Tubing must not be clamped. Never leave a V.A.C.® Dressing in place without active V.A.C.® Therapy for more than two hours (refer to **Keep V.A.C.® Therapy On** section).

Note: *The V.A.C.® Granufoam™ Bridge Dressing contains additional synthetic materials which may pose a risk during HBO Therapy.*

Precautions

Standard Precautions: To reduce the risk of transmission of bloodborne pathogens, apply standard precautions for infection control with all patients, per institutional protocol, regardless of their diagnosis or presumed infection status. In addition to gloves, use gown and goggles if exposure to body fluids is likely.

Closed Surgical Incisions: For maximum benefit the V.A.C.® Therapy System should be applied immediately post surgery to clean surgically closed wounds. It is to be continuously applied for a minimum of two days up to a maximum of seven days. The ActiV.A.C., V.A.C.® Simplicity and V.A.C.® Via Therapy Systems can transition home with the patient; however, all dressing changes should be performed under direct medical supervision.

The V.A.C.® Therapy System will not be effective in addressing complications associated with the following:

- Ischemia to the incision or incision area
- Untreated or inadequately treated infection
- Inadequate hemostasis of the incision
- Cellulitis of the incision area

Continuous versus intermittent/Dynamic Pressure Control™ Therapy: Continuous, rather than intermittent/Dynamic Pressure Control, V.A.C.® Therapy is recommended over unstable structures, such as an unstable chest wall or non-intact fascia, in order to help minimize movement and stabilize the wound bed. Continuous therapy is also generally recommended for patients at increased risk of bleeding, highly exudating wounds, fresh flaps and grafts and wounds with acute enteric fistulae.

Patient Size and Weight: The size and weight of the patient should be considered when prescribing V.A.C.® Therapy. Infants, children, certain small adults and elderly patients should be closely monitored for fluid loss and dehydration. Also, patients with highly exudating wounds or large wounds in relation to the patient size and weight should be closely monitored, as these patients have a risk of excessive fluid loss and dehydration. When monitoring fluid output, consider the volume of fluid in both the tubing and canister.

Spinal Cord Injury: In the event a patient experiences autonomic dysreflexia (sudden changes in blood pressure or heart rate in response to stimulation of the sympathetic nervous system), discontinue V.A.C.® Therapy to help minimize sensory stimulation and seek immediate medical assistance.

Bradycardia: To minimize the risk of bradycardia, V.A.C.® Therapy must not be placed in proximity to the vagus nerve.

Enteric Fistulas: Wounds with enteric fistulas require special precautions to optimize V.A.C.® Therapy. V.A.C.® Therapy is not recommended if enteric fistula effluent management or containment is the sole goal of therapy.

Protect Periwound Skin: Consider use of a skin preparation product to protect periwound skin when using V.A.C.® Drape. Do not allow foam to overlap onto intact skin. Protect fragile/friable periwound skin with additional drape, hydrocolloid or other transparent film.

- Multiple layers of drape may decrease the moisture vapor transmission rate, which may increase the risk of maceration.
- If any signs of **irritation or sensitivity** to the drape, foam or tubing assembly appear, discontinue use and consult a physician.
- To avoid trauma to the periwound skin, **do not pull or stretch the drape** over the foam dressing during drape application.
- Extra caution should be used for patients with neuropathic etiologies or circulatory compromise.

Circumferential Dressing Application: Avoid use of circumferential dressings except in the presence of anasarca or excessively weeping extremities, where a circumferential drape technique may be necessary to establish and maintain a seal. Consider using multiple small pieces of drape rather than one continuous piece to minimize the risk of decreased distal circulation. Extreme care should be taken not to stretch or pull the drape when securing it, but let it attach loosely and stabilize the edges with an elastic wrap, if necessary. When using circumferential drape applications, it is crucial to systematically and recurrently palpate distal pulses and assess distal circulatory status. If circulatory compromise is suspected, discontinue therapy, remove dressing and contact a treating physician.

V.A.C.® Therapy Unit Pressure Excursions: In rare instances, tubing blockages with the V.A.C.® Therapy Unit may result in brief vacuum excursions up to 250 mmHg negative pressure wound therapy depending on the device. Resolve alarm conditions immediately. Refer to the therapy unit user's guide or contact your 3M representative for additional information.

Additional Precautions for 3M™ V.A.C.® Granufoam Silver™ Dressing

Topical Solutions or Agents: When using the V.A.C.® Granufoam Silver™ Dressing, do not use topical solutions or agents that may have adverse interactions with silver. For example, saline solutions may compromise the effectiveness of the V.A.C.® Granufoam Silver™ Dressing.

Protective Layer: For maximum effectiveness, the V.A.C.® Granufoam Silver™ Dressing should be applied directly to the wound surface to enhance optimal contact of the tissue with the foam/silver interface. However, as with all V.A.C.® Dressing foam, the V.A.C.® Granufoam Silver™ Dressing should not be placed in direct contact with exposed blood vessels, anastomotic sites, organs or nerves (refer to **Protect Vessels and Organs** section). Intervening non-adherent layers (page 24) may be placed between the V.A.C.® Granufoam Silver™ Dressing and the wound surface; however, these products may compromise the effectiveness of the V.A.C.® Granufoam Silver™ Dressing in the area covered by the non-adherent layer.

Electrodes or Conductive Gel: Do not allow the V.A.C.® Granufoam Silver™ Dressing to come in contact with EKG or other electrodes or conductive gels during electronic monitoring or when taking electronic measurements.

Diagnostic Imaging: The V.A.C.® Granufoam Silver™ Dressing contains metallic silver that may impair visualization with certain imaging modalities.

Dressing Components: The V.A.C.® Granufoam Silver™ Dressing contains elemental silver (10%) as a sustained release formulation. Application of products containing silver may cause temporary tissue discoloration.

In addition to these general warnings and precautions for V.A.C.® Therapy, additional warnings and precautions apply to certain specialty V.A.C.® Dressings and V.A.C.® Therapy Units. Please refer to the specific product instructions for use and labeling prior to application for complete safety information, dressing application instructions, specific therapy settings and the procedure for connection to the V.A.C.® Therapy Unit.

Considerations for Transitioning 3M™ V.A.C.® Therapy Into Home Care

Warning: Patients with an increased risk of bleeding complications should be treated and monitored in a care setting deemed appropriate by the treating physician.

In addition to the contraindications, warnings and precautions for use of V.A.C.® Therapy, consider the following before prescribing V.A.C.® Therapy for use in the home care setting.

- **The Patient's Situation:**
  - Clinical condition (adequate hemostasis and a low risk of active and/or large amounts of bleeding at the wound site)
  - Home environment (patient or family member/caregiver able to read and understand safety labeling, able to respond to alarms, able to follow instructions for use)
- **The Patient's Wound:**
  - Assess for exposed vessels, anastomotic sites, organs and nerves. Adequate protection should be present (refer to **Protect Vessels and Organs** in the **Warnings** section).
  - **Protect Periwound Skin:** Consider use of a skin preparation product to protect periwound skin. Do not allow foam to overlap onto intact skin. Protect fragile/friable periwound skin with additional drape, hydrocolloid or other transparent film (refer to **Skin and Periwound Management** section).
- **The Canister Size:**
  - The 1000 mL canister is NOT intended for use in the home.
- **Labeling:**
  - The prescribing physician and healthcare provider should be familiar with the V.A.C.® Therapy instructional materials and safety information, and carefully review these materials with the patient and patient's caregiver.

24/7 Technical & Clinical Support:

- Provides technical assistance for 3M NPWT products for healthcare providers and patients
- If there are any questions regarding the proper placement or usage of V.A.C.® Therapy, please refer to these V.A.C.® Therapy Clinical Guidelines for more detailed instructions or contact your local 3M representative.

3M offers in-service and training programs for use of V.A.C.® Therapy. Contact your local 3M representative. In the U.S., call 1-800-275-4524 for scheduling.

For additional and most current information, please see 3M's website at 3M.com/medical.

The 3M™ V.A.C.® Therapy Units

These V.A.C.® Therapy Clinical Guidelines are for use with V.A.C.® Therapy Systems. However, not all therapy units have the same features or require the same guidelines. All V.A.C.® Therapy Systems use the SensaT.R.A.C. Pad. Please refer to the specific product's user manual and/or quick reference guide for operating instructions.

Certain unique indications, contraindications,warnings and precautions may apply to individual products within the family of V.A.C.® Therapy Units. Please refer to each product's labeling and instructional materials for further information.

3M™ ActiV.A.C.™ Therapy System

3M™ V.A.C.® Simplicity Therapy System

3M™ V.A.C.® Via Therapy System

Devices depicted on this page are indicated for use in acute, extended and home care settings.

3M™ V.A.C.® Ulta Therapy System
(V.A.C.® Therapy Mode Only)

3M™ V.A.C.® Rx4 Therapy System

Devices depicted on this page are indicated for use in acute care settings and other professional healthcare environments where product use is conducted by or under the supervision of a qualified healthcare professional.

3M product availability varies by market. Consult your 3M Representative for specific product details.

1 - 3M™ V.A.C.® Therapy System

3M™ V.A.C.® Therapy System Pressure Settings

The therapy settings in these guidelines are general recommendations. You may wish to vary the pressure settings to optimize 3M™ V.A.C.® Therapy based on individual patient need, physician order or an expert healthcare provider's guidance.

Adjusting the pressure settings

For recommended pressure settings for specific wound types, refer to the **Wound-Specific Information** section (page 45 - 60).

The default setting for V.A.C.® Therapy is 125 mmHg on a continuous setting, but these settings may be individualized and adjusted to the patient's needs.

Consider titrating the V.A.C.® Therapy pressure setting up by 25 mmHg increments for the following conditions:

- Excessive drainage
- Large wound volume
- 3M™ V.A.C. Whitefoam™ Dressing(s) in the wound or in tunneled areas
- A tenuous seal (refer to **Maintaining a Seal**, page 24)

The V.A.C.® Therapy pressure setting may be titrated down by 25 mmHg increments for the following situations:

- Extremes of age
- Risk of excessive bleeding (e.g., patients on anticoagulation therapy)
- Circulatory compromise (e.g., peripheral vascular disease)
- Pain or discomfort not relieved by appropriate analgesia
- Periwound or wound bed ecchymosis

Continuous therapy versus intermittent/Dynamic Pressure Control™ Therapy

Continuous therapy is recommended for the first 48 hours in all wounds. Intermittent/Dynamic Pressure Control™ Therapy may be used following this 48-hour period. Some patients may be better served on continuous therapy for the duration of the treatment. Continuous therapy after the first 48 hours is recommended when:

- Patients are at increased risk of bleeding
- Patients experience significant discomfort during intermittent/Dynamic Pressure Control Therapy
- It is difficult to maintain an airtight seal (e.g., perianal or toe wounds)
- There are tunnels or undermined areas, as continuous therapy helps to hold the wound closed, collapsing the edges and promoting granulation (see the **Techniques for Tunneling and Sinus Tracts**, page 29)
- There are high levels of drainage from the wound after the first 48 hours (it is better to wait until the amount of drainage tapers off before switching to intermittent/Dynamic Pressure Control mode)
- There are grafts or flaps with the need to prevent shear
- A splinting effect is required (e.g., sternal or abdominal wounds)

Table 1.1: Recommended therapy settings

Wound Characteristics	Continuous	Intermittent / Dynamic Pressure Control™
Difficult dressing application	●	
Flaps	●	
Highly exudating	●	
Grafts	●	
Painful wounds	●	
Tunnels or undermining	●	
Unstable structures	●	
Minimally exudating	●	●
Large wounds	●	●
Small wounds	●	●
Stalled progress	●	●

Intensity feature

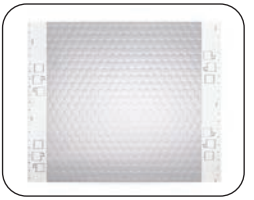
Intensity relates to how quickly target pressure is reached after the initiation of each therapy cycle. The lower the intensity setting, the longer it will take to reach the target pressure. It is recommended that patients new to therapy begin at the lowest intensity setting as this allows for a slower, gentler increase of negative pressure and resultant compression of the foam in the wound. The intensity can remain at the minimum setting throughout treatment to enhance patient comfort, especially when using intermittent/Dynamic Pressure Control Therapy. Higher intensity settings are recommended for larger wounds to obtain/maintain seal.

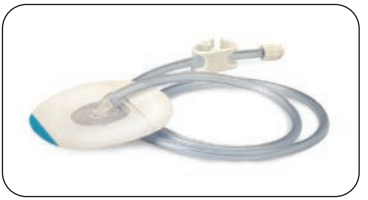
Dynamic Pressure Control™ Therapy

Dynamic Pressure Control Therapy is the evolution of the intermittent therapy in the previous generations of V.A.C.® devices. It maintains a low level of negative pressure at the wound site between cycles. It helps prevent leaks and fluid accumulation that can occur when there is no negative pressure at the wound site. It is also designed to prevent patient discomfort from foam expansion and compression between cycles.

3M™ V.A.C.® Dressings, Canisters and Disposables

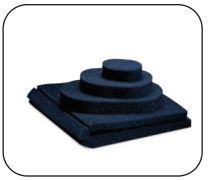
A number of V.A.C.® Dressings and accessories are available for use with V.A.C.® Therapy Units. These include canisters, tubing, drape, foam dressings and the SensaT.R.A.C.™ Pad. In addition, specialty V.A.C.® Dressings are also available (refer to page 27, **Specific Dressing Techniques**). Visit the 3M website 3M.com/medical for additional and most current information.



3M provides three types of foam for use with the V.A.C.® Therapy Units.

3M™ V.A.C.® Granufoam™ Dressing: This black polyurethane (PU) foam dressing has reticulated (open) pores to help evenly distribute negative pressure across the wound bed, assisting in tissue granulation formation in wounds and aiding wound contraction. It is hydrophobic (moisture repelling), which enhances exudate removal.



3M™ V.A.C.® Granufoam Silver™ Dressing: The V.A.C.® Granufoam Silver™ Dressing is an open-celled, reticulated polyurethane foam that has been microbonded with metallic silver via a proprietary metallization process. The microbonded metallic silver is uniformly distributed throughout the dressing, providing silver even after sizing.

3M™ V.A.C. Whitefoam™ Dressing: This white polyvinyl alcohol foam is a dense, open-pore foam with a higher tensile strength than the V.A.C.® Granufoam™ Dressing for use in tunnels and undermining. It is hydrophilic (or moisture retaining) and is packaged pre-moistened with sterile water. Its characteristics help to reduce the likelihood of adherence to the wound base. V.A.C. Whitefoam Dressing may be used to assist in minimizing discomfort, over fresh split thickness skin grafts (STSG) or in situations where hypergranulation responses are likely. The higher density of V.A.C. Whitefoam Dressing requires a minimum pressure setting of 125 mmHg.

For optimal pressure distribution, it is recommended to use a V.A.C.® Granufoam™ Dressing over V.A.C. Whitefoam. Do not place foam dressings of the V.A.C.® Therapy System directly in contact with exposed blood vessels, anastomotic sites, organs or nerves.

Table 1.2: Selecting an appropriate foam dressing

Wound Characteristics	3M™ V.A.C.® Granufoam™ Dressing	3M™ V.A.C. Whitefoam™ Dressing	3M™ V.A.C.® Granufoam Silver™	3M™ V.A.C.® Granufoam™ Bridge/ Bridge XG Dressing
Deep, acute wounds with moderate granulation tissue present	●		●	
Full-thickness pressure ulcers (Stage 3 or 4)	●		●	
Flaps	●		●	
Painful wounds		●		
Superficial wounds		●		
Tunneling/sinus tracts/undermining		●		
Wounds that require controlled growth of granulation tissue		●		
Deep trauma wounds	●	●	●	
Diabetic foot ulcers	●	●	●	●
Dry wounds	●	●	●	
Post-graft placement (including dermal substitutes)	●*	●	●	
Lower extremity ulcers, including Venous Leg Ulcers and Diabetic Foot Ulcers	●	●	●	●
Venous Insufficiency Ulcers	●	●	●	●
Need for barrier to bacterial penetration			●	
Closed Surgical Incisions	●*			

* The V.A.C.® Granufoam™ Dressing can be used over grafts, flaps and closed surgical incisions only when there is a non-adherent material (page 24) placed directly over the graft/ flap or incision.

Note: *These are general recommendations. Consult treating physician as individual patient circumstances may vary.*

Please refer to the specific instructions for use provided with the dressing for complete dressing application instructions.

3M product availability varies by market. Consult your 3M Representative for specific product details.

2 - 3M™ V.A.C.® Dressing General Guidelines

Dressing Changes

Wounds being treated with the 3M™ V.A.C.® Therapy System should be monitored on a regular basis. In a monitored, non-infected wound, 3M™ V.A.C.® Dressings should be changed every 48 – 72 hours but not less than three times per week, with frequency adjusted by the healthcare practitioner as appropriate.

Infected wounds must be monitored often and very closely. For these wounds, dressings may need to be changed more often than 48 – 72 hours taking into account local and systemic signs of infection. The dressing change intervals should be based on a continuing evaluation of wound condition and the patient's clinical presentation, rather than a fixed schedule.

Ensuring Dressing Integrity

It is recommended that a healthcare provider or patient (in the home) visually check the dressing regularly to ensure that the foam is firm and collapsed in the wound bed while therapy is active, if not:

- Make sure the display screen reads THERAPY ON. If not, press the THERAPY ON/OFF button.
- Confirm the clamps are open and the tubing is not kinked.
- Identify air leaks by listening with a stethoscope or moving your hand around the edges of the dressing while applying light pressure.
- If you find that the seal is broken and the drape has become loose, trim away any loose or moist edges, ensure the skin is dry and fat/oil free and then apply new drape strips.
- 3M™ Dermatac™ Drape can be repositioned during application without loss of adhesion.

Note: *If a leak source is identified, patch with additional drape to ensure seal integrity.*

Caution: Use as few layers of drape and with as little overlap as possible without compromising seal. Multiple layers of the drape may decrease the moisture vapor transmission rate, which may increase the risk of maceration, especially in small wounds, lower extremities or load-bearing areas.

Note: *If the wound is over a bony prominence or in an area where weight bearing may exert additional pressure or stress to the underlying tissues, a pressure-relief surface or device should be used to optimize patient off-loading.*

Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*

Non-Adherent Material

In some situations, a non-adherent material may be placed over the wound before the V.A.C.® Dressing foam is applied. Examples of meshed non-adherent materials that may be used with V.A.C.® Dressings include, but are not limited to:

- Petroleum impregnated dressings
- Oil emulsion impregnated dressings
- Silicone dressings

Always ensure that V.A.C.® Dressing foam does not come in direct contact with vessels or organs. Use a thick layer of natural tissue to provide the most effective protection. If a thick layer of natural tissue is not available or is not surgically possible, multiple layers of non-adherent material may be considered as an alternative, if deemed by the treating physician to provide a complete protective barrier. If using non-adherent materials, ensure they are secured in a manner that will maintain their protective position throughout therapy.

Maintaining a Seal

Maintaining a seal around the dressing is key to effective V.A.C.® Therapy. Recommendations to maintain the integrity of the seal:

- Dry the periwound area thoroughly after cleansing. A protective skin barrier preparation, such as 3M™ Cavilon™ No Sting Barrier Film or a skin adhesive, may be used to prepare the skin for 3M™ V.A.C.® Drape application.
- For delicate periwound tissue or in areas that are difficult to dress, apply protective skin preparation and/or consider picture framing/window paning the wound with transparent film or a hydrocolloid dressing or other appropriate barrier.

  Tip: A hydrocolloid dressing can be placed between drapes to help maintain a seal in a crease or high leak area.

  Note: *The hybrid components and silicone-acrylic layers of Dermatac Drape unite the necessary properties that allow you to shape and conform the drape as needed while helping to create an ideal connection between the drape and body to achieve a highly effective seal without window paning or use of ancillary products while minimizing the damage to skin. After about 15 - 20 minutes, these components will cure and mold to provide periwound protection.*
- Ensure 3M™ V.A.C.® Granufoam™ Dressing is appropriate for the depth of the wound by either cutting or beveling it, or use specific thinner V.A.C.® Granufoam™ Dressings where indicated.
- Position the SensaT.R.A.C.™ Pad and 3M™ V.A.C.® Tubing on flat surfaces and away from the perineal area, bony prominences or pressure areas.
- Secure or anchor the tubing with an additional piece of drape or tape, positioning the anchor several centimeters away from the dressing or wound. This prevents tension on the tubing from pulling on the dressing. If secured directly to the dressing, tension on the tubing may interrupt the dressing seal.

Changing the 3M™ V.A.C.® Canister

The 3M™ V.A.C.® Canister should be changed when full (the alarm will sound) or at least once a week to control odor:

1. Follow standard precautions as the system may contain body fluids.
2. Close the clamps on both the V.A.C.® Canister and SensaT.R.A.C. Pad tubing.
3. Disconnect the V.A.C.® Canister tubing from the SensaT.R.A.C. Pad tubing.
4. Remove the V.A.C.® Canister from the unit.
5. Dispose of the V.A.C.® Canister according to specified institution protocol or state and local regulations.
6. Install a new V.A.C.® Canister as described in therapy unit's labeling and instructional materials.
7. Connect the new V.A.C.® Canister to the SensaT.R.A.C. Pad tubing and initiate therapy as ordered.

Disconnecting from the 3M™ V.A.C.® Therapy Unit

Warning: Never leave a V.A.C.® Dressing in place without active V.A.C.® Therapy for more than two hours. If therapy is off for more than two hours, remove the old dressing and irrigate the wound. Either apply a new V.A.C.® Dressing from an unopened sterile package and restart V.A.C.® Therapy; or apply an alternative dressing, such as wet to moist gauze, as approved during times of extreme need, by treating clinician.

To disconnect for short periods of time:

1. Close the clamps on the V.A.C.® Canister and SensaT.R.A.C. Pad tubing.
2. Turn the therapy unit off.
3. Disconnect the SensaT.R.A.C. Pad tubing from the V.A.C.® Canister tubing.
4. Cover the ends of the tubing and secure. Use 3M™ V.A.C.® Tubing Cap if available.

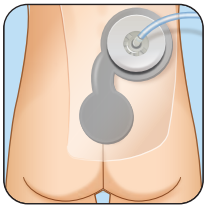
To re-connect:

1. Remove V.A.C.® Tubing Cap or protective covering from the end of the tubing.
2. Reconnect the SensaT.R.A.C. Pad tubing and the V.A.C.® Canister tubing.
3. Open both clamps.
4. Turn the therapy unit on. Confirm that previous therapy settings resume.

3 - Specific Dressing Techniques

Offloading the SensaT.R.A.C.™ Pad

Care must be taken to prevent trauma and/or pressure when placing 3M™ V.A.C.® Tubing, particularly over bony prominences and other areas that will be under pressure. Consider the use of specialty offloading devices, mattresses, or dressings.



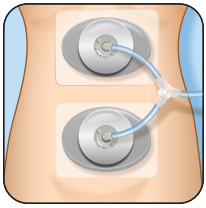
During application:

1. Determine where to best place the SensaT.R.A.C.™ Pad avoiding bony prominences or areas that will be under pressure.
2. Protect intact skin between the wound and where the SensaT.R.A.C. Pad will be located with a piece of drape or other skin barrier such as a hydrocolloid dressing or a vapor-permeable adhesive film dressing.
3. Place foam dressing in the wound, then cut an elongated piece of foam and place over protected skin. All foam pieces must be in direct contact with each other.
4. The distal end of the elongated foam is wide enough to accommodate the SensaT.R.A.C. Pad.
5. Secure the SensaT.R.A.C. Pad and secure with additional drape to avoid inadvertent pulling or displacement.

Techniques for Treating Multiple Wounds

Y-Connector Technique

By applying a 3M™ V.A.C.® Y-Connector to the canister tubing, one 3M™ V.A.C.® Therapy Unit may be used to simultaneously treat multiple wounds on the same patient. If this technique is used, all dressed wound sites must be assessed for seal integrity. The dressing should be collapsed. 3M™ V.A.C.® Granufoam™ Dressings and 3M™ V.A.C.® Granufoam Silver™ Dressings should have a wrinkled appearance. There should be no hissing sounds.



Note: Drawing not representative of actual tubing length when Y-Connector is used.

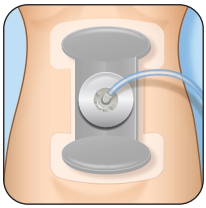
- SensaT.R.A.C. Technology only senses one wound site, the side with the post (male port), even when multiple sites are being treated.
- It is not recommended to Y-connect grafts and/or flaps.

- It is not recommended to use more than one V.A.C.® Y-Connector per therapy unit.
- Do not connect infected wounds with non-infected wounds through a V.A.C.® Y-Connector.
- Do not connect wounds with different etiologies in which cross contamination may occur.
- Avoid using a V.A.C.® Y-Connector to connect wounds that would be optimally treated with differing pressure settings.
- Consider the V.A.C.® Y-Connector as an extension of canister tubing.

Change the V.A.C.® Y-Connector at least once a week or more frequently, as needed, when the canister is changed. Dispose of the V.A.C.® Y-Connector, the canister tubing and the canister in accordance with specific institution protocols or state and local regulations.

Bridging Technique

Wounds that are in close proximity to one another on the same patient and of similar pathologies may also be treated with one V.A.C.® Therapy Unit using a technique known as bridging.



The advantages of bridging include:

- The ability to join two or more wounds of like origin with one V.A.C.® Therapy Unit.
- Allowing placement of the SensaT.R.A.C. Pad and tubing in an appropriate location based on wound size, wound type and wound location.

  Note: *Use only V.A.C.® Granufoam™ Dressings to bridge.*

Step-by-step Bridging Guidelines

1. Protect intact skin between the two wounds with a piece of drape or other skin barrier such as a hydrocolloid dressing or a vapor-permeable adhesive film dressing (e.g. 3M™ Tegaderm™ Transparent Film Dressing).
2. Place foam dressing in both wounds, then connect the two wounds with an additional piece of foam, forming a bridge. All foam pieces must be in direct contact with each other.
3. It is important to place the SensaT.R.A.C. Pad in a central location to ensure that exudate from one wound is not drawn across the other wound.
4. It is not recommended to bridge wounds of different etiologies or to bridge an infected wound to a non-infected wound.

   Tip: It is recommended to ensure a seal on one wound before adding a second.

Techniques for Tunneling and Sinus Tracts

3M™ V.A.C. Whitefoam™ Dressing is recommended for use in tunnels. Always cut the V.A.C. Whitefoam Dressing wide at one end and narrow at the other. This will ensure that the opening to the tunnel or sinus tract remains patent until the distal portion of the tunnel has closed.

Continuous therapy should always be used until the tunnel has completely closed.

Do not place foam into blind or unexplored tunnels.

Initial dressing application for tunneling and sinus tracts

1. Determine the length and width of the tunnel or sinus tract using a measuring device of your choice.
2. Cut the foam to a size that accommodates the tunnel's dimensions, plus an additional **1 - 2 cm** into the wound bed. Gently place the foam into the tunnel or sinus tract all the way to the distal portion. The foam in the tunnel should communicate with the foam in the wound bed and **be easily visible**.

   Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*

Subsequent dressing changes

As the drainage begins to diminish and the presence of granulation tissue is noted, subsequent dressing changes may be altered in the following way:

1. Determine the length and width of the tunnel or sinus tract as above.
2. Cut the V.A.C. Whitefoam Dressing wide at one end and narrow at the other.
3. Gently place the foam into the tunnel or sinus tract all the way to the distal portion.

   Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*
4. Pull out **1 - 2 cm** and ensure that some tunnel foam communicates with the foam in the wound bed. This specific placement leaves the distal portion of the tunnel or sinus tract clear of foam and enables the distribution of higher pressures to collapse the edges together, allowing the wound to granulate together from the distal portion forward.

5. Initiate Continuous therapy at previous settings.
6. Repeat this procedure until the tunnel has closed.

Undermining

It is recommended that Continuous therapy be used in the presence of wound undermining.

Initial dressing application

1. Gently place V.A.C. Whitefoam Dressing in all undermined areas, beginning at the distal portion. Do not pack foam into undermined areas.
2. Pull foam back out **1 - 2 cm**, leaving some foam in the wound to contact with the foam in the wound bed. This specific placement leaves the distal portion of the undermined area clear of foam, allowing the distribution of higher pressures to collapse the free areas of undermining together, encouraging the wound cavity edges to granulate together from the distal portion outward.
3. Monitor the amount of exudate and presence of granulation tissue at each dressing change.

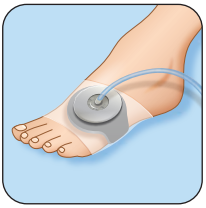
Subsequent dressing changes

When the exudate volume decreases and the presence of granulation tissue is noted, subsequent dressing changes must be altered in the following way:

1. Gently place the foam into the undermined areas all the way to the distal portion. Do not pack foam into undermined areas.
2. Pull foam back out **1 - 2 cm**, leaving some foam in the wound to contact with the foam in the wound bed. This specific placement leaves the distal portion of the undermined area clear of foam, allowing the distribution of higher pressures to collapse the free areas of undermining together, encouraging the wound cavity edges to granulate together from the distal portion outward.
3. Initiate Continuous therapy at previous settings.
4. Monitor the amount of exudate and presence of granulation tissue at each dressing change.

Foot Wounds

For wounds on the plantar surface or heel of the foot, it is best to use an offloading technique to ensure that additional pressure is not applied as a consequence of the placement of the tubing and/or SensaT.R.A.C. Pad. This involves using foam to allow placement of the SensaT.R.A.C. Pad or tubing on the dorsum of the foot.



Application technique to offload SensaT.R.A.C.™ Pad away from wound

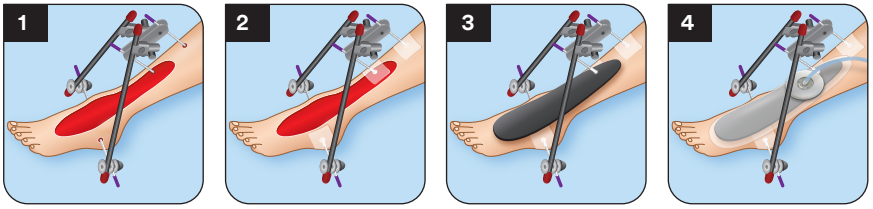
1. Gently place appropriate V.A.C.® Dressing foam into the wound.
2. To protect intact skin, apply drape or a vapor-permeable adhesive film dressing (e.g. Tegaderm Transparent Film Dressing) from the wound edge to the anterior aspect of the foot.
3. Cut an elongated foam.
4. Place the piece of foam around the foot, extending from the wound to the lateral aspect, and ensure that it contacts the foam dressing in the wound. Ensure the foam does not come in contact with intact skin.

   Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*
5. Apply the drape over the foam and extend it to the anterior aspect of the foot, covering both the wound and the elongated foam to obtain a seal.
6. Cut a **2.5 cm** hole in the drape on the anterior aspect of the foot and apply SensaT.R.A.C. Pad.
7. Appropriate off-loading of the foot is essential in order to maximize the therapeutic benefits of V.A.C.® Therapy.

   Note: *3M™ Dermatac™ Drape has the precise combination of silicone and acrylic which allows you to shape and conform the drape in a variety of anatomical locations helping to create an ideal connection between the drape and body to achieve an effective seal for negative pressure. It is easy to smooth out wrinkles and reposition during dressing application without loss of adhesion. Dermatac Drape availability varies by market.*

Orthopedic Hardware

The V.A.C.® Dressing can be placed on wounds with orthopedic hardware, such as pin sites.



Sealing drape around orthopedic hardware (pins)

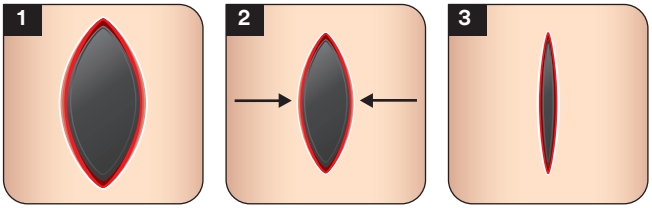
Application Technique

1. Apply moldable hydrocolloid strip around pin approximately **1.27 cm** above the level of wound, wrapping it around the pin, ensuring snug fit (Fig. 2).
2. Place appropriate V.A.C.® Dressing in the wound (Fig. 3).
3. Cut drape to appropriate size and apply to wound (Fig. 4).
4. Cut strips of drape and apply vertically over the pin and onto drape surrounding the pin. Do this from both sides of the pin. Pinch drape together to form airtight seal as V.A.C.® Therapy is initiated.

   Note: *Dermatac Drape has the precise combination of silicone and acrylic which allows you to shape and conform the drape in a variety of anatomical locations helping to create an ideal connection between the drape and body to achieve an effective seal for negative pressure. It is easy to smooth out wrinkles and reposition during dressing application without loss of adhesion. Dermatac Drape availability varies by market.*

Wound Edge Approximation and Dressing Technique

In open wounds without significant tissue loss, V.A.C.® Therapy may be used to encourage approximation of the wound edges.



1. Initial dressing application should include gently placing the V.A.C.® Granufoam™ Dressing into the wound (Fig. 1).

   Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*

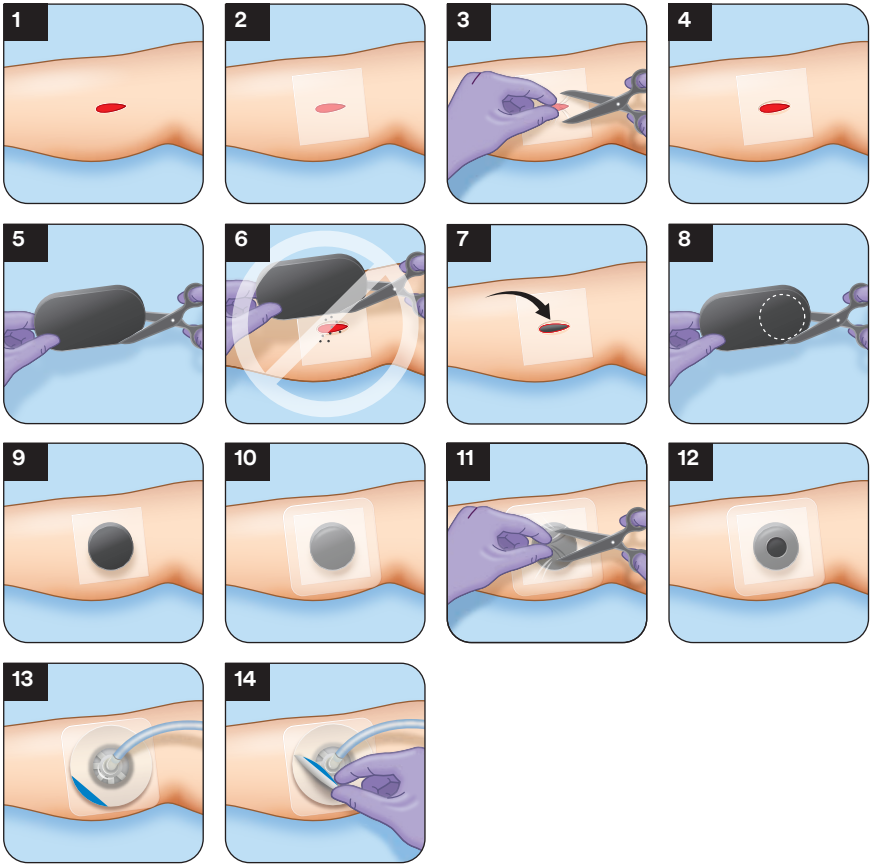
2. Pressures should be adjusted appropriately to encourage the removal of any excessive fluid and debris.
3. For subsequent dressing applications, the foam should be cut progressively smaller to allow controlled approximation of the wound edges (Figs. 2 - 3).

Dressings and Fecal Incontinence

V.A.C.® Therapy can be used in the presence of wounds in perineum with potential fecal contamination. There are a number of methods to combat or control potential leakage of feces into the wound dressing. A fecal management system can be used as a method to isolate fecal waste while providing the ability to use negative pressure wound therapy around the anus and adjacent structures.

Dressing Small Wounds and SensaT.R.A.C.™ Pad Application ("Mushroom Technique")

For wounds that are smaller in dimensions (< 4 cm) than the SensaT.R.A.C. Pad, the following dressing application is recommended to protect the periwound tissue and prevent maceration:



1. Prepare the periwound area by following institution protocol, and 'picture frame' or 'window pane' the wound with a hydrocolloid dressing or vapor-permeable adhesive film dressing (e.g. Tegaderm Transparent Film Dressing) (Figs. 2 - 4).
2. Cut foam dressing to dimensions that will allow the foam to be placed gently into the wound, but not overlap onto intact skin (Fig. 5).

   Note: *Do not cut the foam over the wound, as fragments may fall into the wound (Fig. 6). Away from the wound site, rub or trim foam, removing any fragments to ensure loose particles will not fall into or be left in the wound upon dressing removal.*
3. Gently place foam into wound cavity, ensuring contact with all wound surfaces (Fig. 7).

Do not force foam dressing into any area of the wound.

Note: *Always count the total number of pieces of foam used in the wound. Document the foam quantity and dressing change date on the Foam Quantity Label if available, and in the patient's chart.*

4. To accommodate the size of the SensaT.R.A.C. Pad, cut another piece of foam large enough to extend **2 - 3 cm** beyond the SensaT.R.A.C. Pad (Fig. 8) and lay on the foam in the wound (Fig. 9). Assure the foam does not extend onto intact skin, that it is positioned on the product used to 'picture frame' the wound and protects the intact skin.
5. Trim and place the drape to cover the foam dressing and an additional **3 - 5 cm** border (Fig. 10).
6. Pinch drape and cut a **2.5 cm** hole through the drape (not a slit) (Fig. 11). The hole should be large enough to allow for removal of fluid and/or exudate (Fig. 12). It is not necessary to cut into the foam.
7. Apply the SensaT.R.A.C. Pad to the larger piece of foam (Figs. 13 - 14).
8. Seal the drape of the SensaT.R.A.C. Pad with additional drape, if necessary.
9. Initiate therapy.

Incision Management

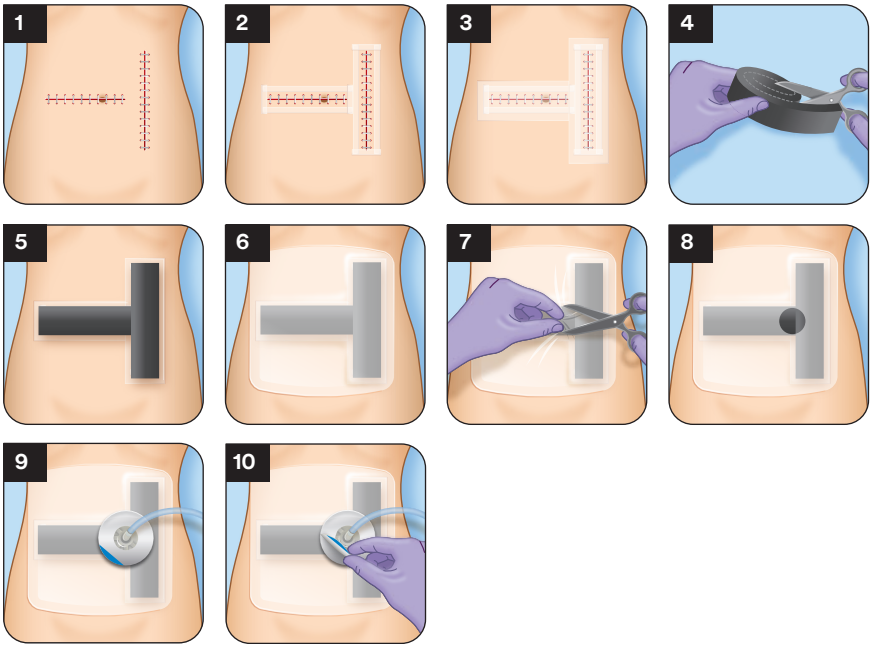
V.A.C.® Granufoam™ Dressings may be used on closed surgical incisions to manage the environment of incisions that continue to drain following sutured or stapled closures.

Incision Site Preparation

1. Prior to surgery, clip the surgical area per institution protocol where the dressing will be applied to improve dressing adhesion and seal integrity.
2. Immediately post surgery, clean the application site per physician's orders.
3. Pat the application site dry with sterile gauze. To ensure proper adhesion, the application site must be completely dry before dressing is applied.

Note: *When managing incisions using the 3M™ Prevena™ Incision Management System, please refer to the Prevena Clinical Guidelines, Instructions for Use and Safety Information.*

Incision Site Dressing Application



Product	Dressing Dimension	Potential total cut length of 6.35 cm dressing strips	Maximum length of incision
3M™ V.A.C.® Granufoam™ Small Dressing	10 × 7.5 × 3.2 cm	15.2 cm	10.2 cm
3M™ V.A.C.® Granufoam™ Medium Dressing	18 × 12.5 × 3.2 cm	30.5 cm	25.4 cm
3M™ V.A.C.® Granufoam™ Large Dressing	26 × 15 × 3.2 cm	43.2 cm	38.1 cm
3M™ V.A.C.® Granufoam™ XL Dressing	60 × 30 × 1.5 cm	302.3 cm	297.2 cm

1. Select appropriate dressing.
2. Clean skin around incision, per institution protocol or physician's orders.
3. Apply skin protectant or skin adhesive to area around the incision and approximately 5 cm on either side to assist with skin and dressing seal integrity (Fig. 1).
4. Protect intact skin on both sides of the suture line with drape, hydrocolloid, or other transparent film ('picture frame' the suture or staple line), leaving the suture line exposed (Fig. 2).
5. Place a meshed non-adherent layer (i.e. oil emulsion, petroleum or silicone dressing), minimum 8 cm wide, over length of incision. Include at least 3 cm over each end of the incision (Fig. 3).
6. Cut V.A.C.® Granufoam™ Dressing into strips minimally 6 cm wide. Cut enough strips to cover entire incision and at least 3 cm over either end (Fig. 4).
7. Place V.A.C.® Granufoam™ Dressing strips onto entire length of non adherent layer. If multiple strips are used, ensure that the strips touch each other so that negative pressure is applied over the length of the incision (Fig. 5). Do not allow V.A.C.® Granufoam™ Dressing to touch intact skin.

8. Cut and place drape to allow for coverage of the V.A.C.® Granufoam™ Dressing and 5 - 7 cm contact with intact skin (Fig. 6). An additional strip of drape can be used and overlapped at the edges to form a seal.

   Note: *To avoid trauma to the periwound skin, do not pull or stretch the drape over the foam during drape application.*

   Note: *If the dressing is in a mobile area (ie. knee), position limb in a mid-range of motion to prevent skin tension.*

9. Pinch drape and cut a **2.5 cm** hole through the drape (not a slit) (Fig. 7). The hole should be large enough to allow for removal of fluid and/or exudate (Fig. 8). It is not necessary to cut into the foam.

   Application Tip: Use SensaT.R.A.C. Pad release liner as reference for size of the hole.

10. Apply the SensaT.R.A.C. Pad (Fig. 9 and Fig. 10).

11. Initiate V.A.C.® Therapy at -125 mmHg continuous.

Drain Tubes and Pain Management Control Devices

The V.A.C.® Therapy System dressings can be used with both drain tubes and pain devices, provided the dressing is not placed over tubing where it exits the skin. Surgical drains must be routed under the skin beyond the boundary of the dressing and function independently of the V.A.C.® Therapy System.

Note: *While the concomitant use of surgical drains is allowable with the V.A.C.® Therapy System, the system must not be used as an outlet or reservoir for the drain.*

4 - 3M™ V.A.C.® Therapy Monitoring

Skin and Periwound Management

Protect Periwound Skin: Consider use of a skin preparation product to protect periwound skin (e.g. 3M™ Cavilon™ No Sting Barrier Film) when using 3M™ V.A.C.® Drape. Do not allow foam to overlap onto intact skin. Protect fragile/friable periwound skin with additional drape, hydrocolloid or a vapor-permeable adhesive film dressing (e.g. 3M™ Tegaderm™ Transparent Film Dressing).

3M™ Dermatac™ Drape may be considered for patients with fragile or friable periwound skin. The low tack adhesive allows for easier removal which may be helpful for patients with thin or sensitive skin while still allowing clinicians to rely on a strong and effective seal.

Note: *The hybrid components and silicone-acrylic layers of Dermatac Drape unite the necessary properties that allow you to shape and conform the drape as needed while helping to create an ideal connection between the drape and body to achieve a highly effective seal without window paning or use of ancillary products while minimizing the damage to skin. After about 15 - 20 minutes, these components will cure and mold to provide periwound protection.*

- Window paning is recommended only when the foam cannot be cut to fit within the wound bed and may come into contact with intact skin.
- Most wounds benefit from cutting the foam smaller and allowing for mechanical approximation of the wound margins.
- Multiple layers of the drape may increase the risk of maceration.
- If any signs of **irritation or sensitivity** to the drape, foam or tubing assembly appear, discontinue use and consult a physician.
- To avoid trauma to the periwound skin, **do not pull or stretch the drape** over the foam dressing during drape application.
- Extra caution with drape removal should be used for patients with neuropathic etiologies or circulatory compromise.

Pain Management

Patients receiving 3M™ V.A.C.® Therapy may experience a reduction in pain as the wound begins to heal. However, some patients experience discomfort during treatment initiation or dressing changes. In line with institutional guidelines, a validated pain scoring tool should be used and pain scores should be documented where appropriate before, during and after dressing-related procedures.

In addition, the following strategies should be considered:

- If the patient complains of discomfort throughout therapy, consider changing to 3M™ V.A.C. Whitefoam™ Dressing.
- Ensure the patient receives adequate analgesia during treatment.
- **If the patient complains of discomfort during the dressing change**, consider premedication, the use of a non-adherent material (page 24) layer before foam placement, using V.A.C. Whitefoam to dress the wound, or managing the discomfort as prescribed by the treating physician.

  Note: *Dermatac Drape is kind and gentle to skin. The low tack adhesive allows for easier removal which may be helpful for patients with thin or sensitive skin or for those experiencing pain during removal of V.A.C.® Drape. Dermatac Drape availability varies by market.*

- If there is a sudden increase or change in the character of the pain requires investigation, call your healthcare provider.
- Consider stopping therapy 15 minutes prior to dressing change.
- Soaking the wound and dressing with a solution before removal.

Length of Treatment

The length of treatment depends on the treating physician's goal of therapy, wound pathology, wound size and management of patient co-morbidities. If a patient is not a surgical candidate, V.A.C.® Therapy may be utilized for an extended period of time as long as satisfactory progress continues.

When to Discontinue 3M™ V.A.C.® Therapy

V.A.C.® Therapy should be discontinued when:

- The goal of therapy has been met. In some cases this will be full closure of the wound, in others the wound may be closed surgically.
- The patient is unable or unwilling to follow the medical plan of care (maximum benefits might not be achieved).

Indicators of Effective 3M™ V.A.C.® Therapy

- The exudate volume should gradually decrease over time.
- The wound appearance may change color and become a deeper red as V.A.C.® Therapy helps promote perfusion to the wound.
- The exudate color may change from serous to serosanguineous and some sanguineous or bloody drainage may also be noted during negative pressure therapy. This is due to the mechanism of action of V.A.C.® Therapy to help promote perfusion. The change in wound drainage characteristics may be related to disruption of capillary buds of granulation tissue.

  If active bleeding develops suddenly or in large amounts during V.A.C.® Therapy, or if frank (bright red) blood is seen in the tubing or in the canister, immediately stop V.A.C.® Therapy, leave dressing in place, take measures to stop the bleeding and seek immediate medical assistance. The V.A.C.® Therapy Units and dressings should not be used to prevent, minimize or stop vascular bleeding.

- Wound measurements should begin to decrease as the active state of healing continues. Weekly wound measurements should be performed and documented per protocol for comparison and to effectively assess for healing. A steady decrease in wound dimensions should be noted every week. If this does not occur, comprehensive patient assessment and troubleshooting interventions should be implemented immediately (See **Minimal Changes in Wound Size** section). The 3M™ V.A.C.® Ulta Therapy System offers wound imaging and dimensional documentation tools.
- As the wound continues to form granulation tissue, new epithelial growth should be seen at the wound edges.

Indicators of Ineffective Therapy

A steady decrease in wound dimensions should be noted every week. If this does not occur, comprehensive patient assessment and troubleshooting interventions should be implemented immediately (see below).

Minimal Changes in Wound Size

When there is little or no change in the wound for one to two consecutive weeks, and patient compliance, technique and underlying co-morbidities are not the cause, the following may be useful:

- Ensure the patient is receiving adequate pressure relief. For example, a patient with an ischial pressure ulcer may be sitting up for too long.
- Cut the foam slightly smaller than the wound edges for wounds with little depth, to enhance inward epithelial migration. Do not allow the wound edges to roll during V.A.C.® Therapy.
- Provide a 'therapeutic pause' by interrupting V.A.C.® Therapy for 1 - 2 days, then resume.
- Change the therapy settings from continuous to intermittent/Dynamic Pressure Control™ Therapy or vice versa.
- Evaluate if other products are being used in the wound that could potentially inhibit the delivery of negative pressure to the wound.
- Adjust pressure settings (as can be tolerated), for wounds that are inappropriate for intermittent/Dynamic Pressure Control Therapy such as tunnels or wounds with high amounts of exudate.
- Evaluate nutritional status and supplement as necessary.
- Check the therapy hour meter to ensure that the actual number of therapy hours received matches the number of recommended therapy hours (22 hours a day). If the number of therapy hours is less than 22 each day, find out why there is a therapy deficit and remedy the situation.
- Assess for wound infection according to facility protocol or physician order. With physician order, obtain a microbiology culture or biopsy and treat accordingly.

Deterioration of the Wound

If a wound has been progressing well from dressing change to dressing change but then deteriorates rapidly, consider the following interventions and, where necessary, seek the guidance/expertise of a specialist:

- If available on the therapy unit, check the therapy history log to ensure that the actual number of therapy hours received matches the number of recommended therapy hours (22 hours a day). If the number of therapy hours is less than 22 each day, find out why there is a therapy deficit and remedy the situation.
- Check for small leaks with a stethoscope, or by listening for a whistling noise or moving your hand around the edges of the dressing while applying light pressure. The 3M™ ActiV.A.C.™ and V.A.C.® Ulta Therapy Systems offer a Seal Check™ Feature which provides audible and visual cues for leak location. Patch if necessary. However, avoid applying more than two layers of drape.
- Clean wound more thoroughly during dressing changes.
- Evaluate for signs and symptoms of infection and, if present, treat accordingly.
- Change dressing often, ensuring that it is being changed at least every 48 hours.
- Examine the wound and debride as necessary. Debride the wound edges if they appear non-viable or rolled under as this may inhibit the formation of granulation tissue and migration of epithelial cells over an acceptable wound base.
- Assess for osteomyelitis and, if present, treat accordingly.

Note: *If appropriate, consider use of 3M™ Veraflo™ Therapy. Please refer to the Veraflo Clinical Guidelines and Instructions For Use.*

Changes in Wound Color

If the wound assessment reveals dark discoloration:

- Rule out mechanical trauma. Relieve wound of excessive pressure, excess foam in the wound or a pulled or stretched drape over the foam. Remember to roll the drape over the foam; do not stretch it over foam.
- Decrease pressure by 25 mmHg increments.
- Determine whether the patient is taking anticoagulant medication, and if so, evaluate recent coagulation laboratory values.
- Thin the depth of the foam before applying the dressing to prevent overpacking or consider use of 3M™ V.A.C.® Granufoam™ Thin Dressing.

If the wound appears white, excessively moist or macerated:

- Check the therapy hour meter to ensure that the actual number of therapy hours received matches the number of recommended therapy hours. Find out why there is a therapy deficit and remedy the situation.
- The exudate volume should experience a gradual decrease as the extracellular debris is brought to equilibrium. Persistent large volumes of exudate may signal infection or other complications and should be evaluated by the prescribing clinician.
- Determine if occult infection is present.
- Increase pressure settings by 25 mmHg increments if drainage increases.
- Determine if there is a positional seal leak, which may be preventing effective exudate removal.
- Assess for the need to bridge SensaT.R.A.C. Pad away from the wound.
- Protect the surrounding tissue with drape or a hydrocolloid.
- Isolate wound drainage from periwound skin (see page 39 for specific information).
- Determine if patient is adequately off-loaded or if there is a potential for external pressure on the wound/dressing, which may cause the wound exudate to be forced onto the periwound skin.

Wound Odors

Wounds treated with V.A.C.® Therapy may have an odor due to the foam and wound fluids, which contain bacteria and proteins. The type of bacteria and proteins present may be responsible for the type and strength of the odor.

- It is imperative that the wound be thoroughly cleaned during each dressing change to decrease bacterial load and minimize odor.
- If malodor remains after thorough cleaning of the wound, this may be a sign of possible infection.
- The 3M™ V.A.C.® Canister with solidification gel can greatly reduce odors.
- V.A.C.® Canisters may need to be changed more often to control odor.
- If you determine that the V.A.C.® Therapy Unit is the source of odor, discontinue use of that therapy unit and contact your 3M representative for replacement.

5 - Wound Specific Information

Acute/Traumatic Wounds/Partial-Thickness Burns

3M™ V.A.C.® Therapy may be used in the care of patients with acute traumatic wounds, including partial thickness burns and orthopedic wounds.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and Objectives:

- Promote granulation tissue formation
- Promote perfusion
- Remove fluids, exudate and infectious materials

Table 5.1: Recommended settings for acute/traumatic wounds/partial-thickness burns

Initial cycle	Subsequent cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous first 48 hours	Consider Intermittent / Dynamic Pressure Control™ (5 min ON / 2 min OFF) for rest of therapy	125 mmHg	125 - 175 mmHg Titrate up for more drainage	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.

Clinical Considerations

- V.A.C.® Therapy may be used after debridement to help remove infectious material and assist granulation tissue formation.
- V.A.C.® Therapy can be used in the presence of orthopedic hardware (see **Orthopedic Hardware**, page 32). Clinicians should exercise nursing/medical judgement when observing the quality of granulation tissue and remain alert to any sign of infection that may indicate underlying osteomyelitis. In such cases, consult the treating physician.
- Tendons, ligaments, blood vessels, organs and nerves (vital structures) must be completely covered and protected prior to the administration of V.A.C.® Therapy. Coverage with a muscle flap or other thick layer of natural tissue provides the most effective protection. If not available, consider meshed non-adherent material (page 24).

  If active bleeding develops suddenly or in large amounts during V.A.C.® Therapy, or if frank (bright red) blood is seen in the tubing or in the canister, immediately stop V.A.C.® Therapy, leave dressing in place, take measures to stop the bleeding and seek immediate medical assistance. The V.A.C.® Therapy Units and dressings should not be used to prevent, minimize or stop vascular bleeding.
- For wounds with large amounts of exudate, consider increasing target pressures by 25 - 75 mmHg until the drainage amount tapers off. This will ensure adequate fluid removal and maintain integrity of the V.A.C.® Dressing seal.

- Continuous therapy is recommended throughout entire therapy for patients who are experiencing discomfort or using 3M™ V.A.C. Whitefoam™ Dressing or where the wound contains tunneling/undermining or with flaps and grafts.
- V.A.C.® Therapy should not be initiated on a wound with osteomyelitis until the wound has been thoroughly debrided of all necrotic, non-viable tissue, including infected bone (if necessary) and appropriate antibiotic therapy has been initiated.
- In acute wounds with exposed bone or fractures, the V.A.C.® System may be used to help remove fluid and may remove infectious material secondary to the traumatic wound.

  Note: *Protect intact bone with a single layer of meshed non-adherent material (page 24).*
- Pressure settings with V.A.C. Whitefoam Dressing should be at least 125 mmHg and higher if tolerated by the patient.
- 3M™ V.A.C.® Granufoam™ Dressing is recommended for traumatic wounds with large tissue deficits.

Dehisced Wounds

V.A.C.® Therapy is suitable for the treatment of a variety of large and small wounds arising from postoperative complications. In such cases, the principles of wound management are adequate surgical debridement and antibiotic as necessary, followed by the immediate application of V.A.C.® Therapy.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and Objectives

- Apply controlled, localized negative pressure to help draw wound edges and control the formation of granulation tissue
- Provide a closed moist wound healing environment
- Promote perfusion
- Remove fluids, exudate and infectious materials
- Second or third intension healing
- Reduce edema

Table 5.3: Recommended settings for surgical wound dehiscences

Initial cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous for duration of therapy	125 mmHg	125 - 175 mmHg Titrate up	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.

Clinical Considerations for Dehisced Wounds

- Select appropriate type of foam dressing based on wound characteristics and the goal of therapy. (see **Table 1.2** page 22).
- Consider applying drape over adjacent drain (puncture) sites in the event that a properly applied V.A.C.® Dressing is not collapsing.
- Monitor characteristics of wound exudate and volume and report any significant changes to treating physician.
- The placement and size of the foam is critical for optimal results and to achieve reverse tissue expansion. See **Wound Edge Approximation and Dressing Technique**, (page 33).
- **If bowel is visible, use a thick layer of natural tissue to provide the most effective protection.** If a thick layer of natural tissue is not available or is not surgically possible, multiple layers of meshed non-adherent material (page 24) may be considered as an alternative, if deemed by the treating physician to provide a complete protective barrier. If using non-adherent materials (page 24), ensure they are secured in a manner that will maintain their protective position throughout therapy.
- V.A.C.® Dressing foam can be placed directly over synthetic mesh in abdominal wounds without exposed viscera and can facilitate the growth of granulation tissue from the structures beneath the mesh, extending up through the mesh into the wound base.
- V.A.C.® Therapy can be an important tool in the management of sternal wounds. Due to the vital structures located in the thoracic cavity, V.A.C.® Therapy should be applied with the utmost care and vigilance.
- Superficial sternal wounds are wounds in which the sternum is stable and intact, and no infection of the bone is present. These wounds are managed per the guidelines for dehisced wounds.
- Patients with deep sternal wounds (i.e. patients with mediastinitis or sternal wound infection) should have dressing changes supervised or performed by the lead healthcare provider or specialist surgeon, preferably the cardiovascular surgeon.
- Prior to the application of V.A.C.® Therapy to a patient with a deep sternal wound, read and follow the Safety Information (page 7 - 16), specifically the **Warning** regarding **Bleeding** on page 9.
- For sternal wounds, the lowest negative pressure setting is recommended initially. Monitor closely while progressing to target treatment pressure, as tolerated.
- For patients with an unstable sternum, continuous therapy is recommended throughout the treatment period to help stabilize the chest wall. This helps pull the wound edges together and provides a “splinting” effect, which may allow the patient to be more mobile and more comfortable.
- For other than dehisced sternal or abdominal wounds, better results may be achieved with intermittent/Dynamic Pressure Control™ Therapy once exudate levels are stable and where the primary goal is to create granulation tissue.

Meshed Grafts

V.A.C.® Therapy may not be suitable for placement over some products that create a barrier to fluid removal. Check with the product's manufacturer prior to use with V.A.C.® Therapy.

Apply V.A.C.® Dressing immediately after graft placement and begin therapy as soon as possible. When using V.A.C.® Granufoam™ Dressings, a non-adherent material (page 24) should be placed directly over the graft/tissue. In general, the pressure setting used to prepare the recipient bed before grafting should be continued after grafting. Continuous therapy should be used to provide a constant bolster.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

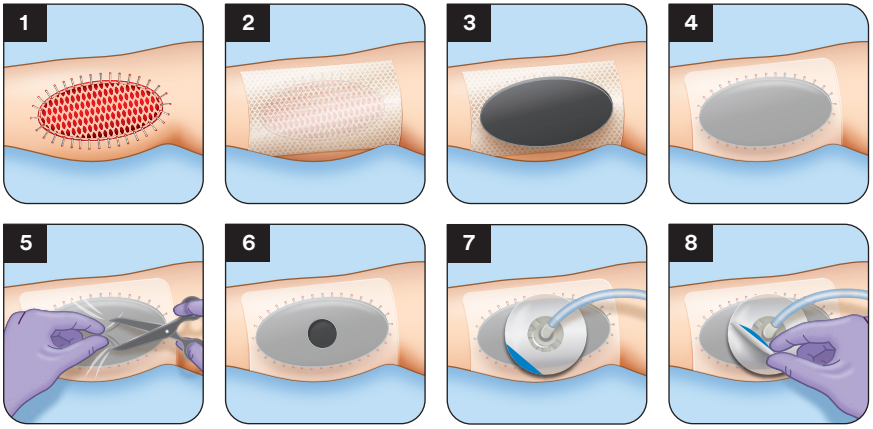
Goals and Objectives

- Remove fluid
- Help protect wound environment; (e.g. minimize shearing forces)
- Provide bolster and stability for skin grafts (split and full thickness)
- Support skin graft

Table 5.4: Recommended settings for meshed grafts and dermal substitutes

Initial cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval
Continuous for duration of therapy	75 - 125 mmHg	125 mmHg Titrate up for more drainage	Remove dressing after 4 - 5 days when using either foam (drainage should taper off before removal)

* 75 mmHg can be used in areas that will not be subjected to shear forces if the patient has persistent pain with higher pressures. 125 mmHg can be used in highly contoured areas where shear forces are present.



Recommended 3M™ V.A.C.® Dressing Application Post-Graft Procedure:

1. Select a single layer of meshed non-adherent material (page 24) (not required if using V.A.C. Whitefoam Dressing).
2. Cut the meshed non-adherent material to the size of the grafted area plus a **1 cm** border, (i.e., so it extends about 1 cm outside the staple line), and place over the graft (Fig. 2).
3. Cut the V.A.C.® Granufoam™ Dressing to the same size as the non-adherent material and place it gently on top of the non-adherent layer (Fig. 3).

   Note: *V.A.C. Whitefoam Dressing may also be used for fixation of skin grafts. A meshed non-adherent material (page 24) is not required when using V.A.C. Whitefoam. Cut the V.A.C. Whitefoam Dressing to the size of the grafted area plus a* ***1 cm*** *border.*
4. Apply drape according to the instructions for use supplied with the dressing.
5. Apply the SensaT.R.A.C.™ Pad and tubing.
6. Set negative pressure to the desired level as indicated in **Table 5.4**.
7. Expect more drainage in the tubing and canister in the first 24 hours of V.A.C.® Therapy post-graft, after which the drainage usually tapers off significantly. Significant drainage in the tubing post-graft may indicate a complication underneath the foam. If there is any sign of infection, remove the V.A.C.® Dressing and assess the wound.

Pressure Ulcers/Pressure Injuries

In the management of full-thickness pressure ulcers (stages 3 and 4), V.A.C.® Therapy can be used either as a definitive treatment or to optimize the wound bed prior to surgical closure.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and objectives

- Promote granulation tissue formation to reduce size/volume of wound and prepare for definitive future closure/surgical procedures
- Promote perfusion
- Provide a closed, moist wound healing environment
- Help manage wound environment

Table 5.5: Recommended settings for pressure ulcers

Initial cycle	Subsequent cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous first 48 hours	Consider Intermittent / Dynamic Pressure Control™ (5 min ON / 2 min OFF) for rest of therapy	125 mmHg	125 - 175 mmHg Titrate up for more drainage	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.

Clinical Considerations

Note: *If the wound is over a bony prominence or in an area where weight bearing may exert additional pressure or stress to the underlying tissues, a pressure-relief surface or device should be used to optimize patient off-loading.*

- All patients require a detailed medical and nutritional assessment and any factors that might influence etiology and/or healing must be addressed, particularly the provision of adequate nutrition and appropriate pressure relief.
- V.A.C.® Therapy is not a debriding tool and is not a substitute for effective surgical and/or other forms of debridement.
- If the patient's skin cannot tolerate frequent dressing changes, it may not be necessary to remove the entire drape. Instead, cut the drape around the foam, remove the foam, irrigate the wound as directed by the clinician, then replace the foam and reseal with an additional piece of drape. Drape around periwound area may be left on for one additional dressing change (see **Skin and Periwound Management** section, page 39).

  Note: *3M™ Dermatac™ Drape has a low tack adhesive allowing for easier removal which may be helpful for patients with thin or sensitive skin.*
- Multiple layers of the drape may decrease the moisture vapor transmission rate, which may increase the risk of maceration, especially in small wounds, lower extremities, or load-bearing areas.
- Care must be taken to prevent trauma and/or pressure when placing 3M™ V.A.C.® Tubing, particularly over bony prominences; consider offloading the SensaT.R.A.C. Pad (see page 27).

Diabetic Foot Ulcers

V.A.C.® Therapy is commonly used in the management of diabetic foot ulcers.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and objectives

- Promote granulation tissue formation
- Promote perfusion
- Provide a closed, moist wound healing environment
- Help manage wound environment

Table 5.6: Recommended settings for diabetic foot ulcers

Initial cycle	Subsequent cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous first 48 hours	Consider Intermittent / Dynamic Pressure Control™ (5 min ON / 2 min OFF) for rest of therapy	50 - 125 mmHg**	125 - 175 mmHg Titrate up for more drainage	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.
** The higher pressures within the stated target pressure range are recommended. Using lower pressure is an option, but ensure that activ exudate removal occurs.

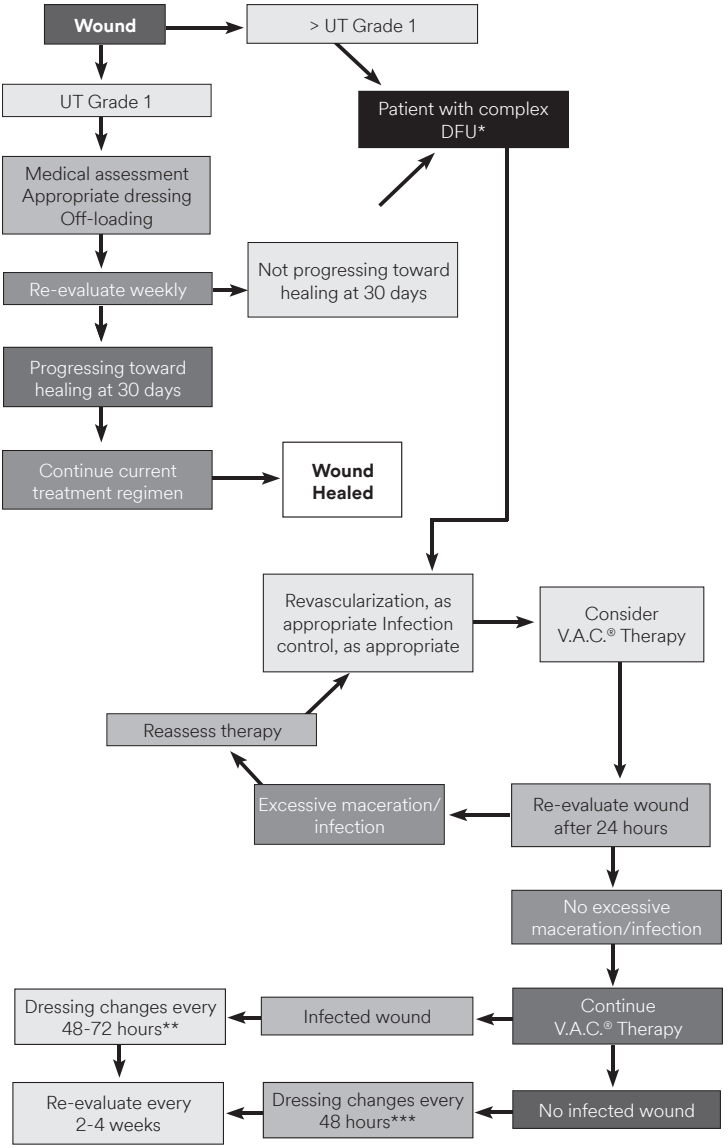
University of Texas Diabetic Foot Classification System

The University of Texas Diabetic Foot Classification system provides a detailed categorization, which includes infection and ischemia.

Stage	Grade 0	Grade I	Grade II	Grade III
A	Preulcerative or postulcerative foot risk for further ulceration	Superficial ulcer without tendon, capsule, or bone involvement	Ulcer penetrating to tendon or joint capsule	Ulcer penetrating to bone
B	Presence of infection	Presence of infection	Presence of infection	Presence of infection
C	Presence of ischemia	Presence of ischemia	Presence of ischemia	Presence of ischemia
D	Presence of ischemia and infection	Presence of ischemia and infection	Presence of ischemia and infection	Presence of ischemia and infection

This is included as reference for the Treatment of the Diabetic Foot Algorithm on the following page. There are other classification systems, such as the Wagner Classification System for Diabetic Foot Ulcers, that may be ultilized.

Treatment of Diabetic Foot Ulcer (DFU) with 3M™ V.A.C.® Therapy†



† Used with permission. Adapted from Andros et al (2006). Consensus statement on negative pressure wound therapy (V.A.C.® Therapy) for the management of the diabetic foot wound. Ostomy Wound Management, Supplement June 2006, p. 23.

* Complex DFU = > UT Grade 1; may also include Grade 1 if patient has failed appropriate therapy as defined in recommendations.

** As of July 2007 manufacturer recommended dressing change interval is every 48 - 72 hours, no less than 3 times per week; evaluate for appropriate dressing change schedule.

*** As of July 2007 manufacturer recommended dressing change interval is every 48 - 72 hours, no less than 3 times per week. Infected wounds must be monitored often and very closely. For these wounds, dressings may need to be changed more often than 48 - 72 hours; the dressing change intervals should be based on a continuing evaluation of wound condition and the patient's clinical presentation, rather than a fixed schedule.

Clinical Considerations for Diabetic Foot Ulcers

- As with any treatment for diabetic foot ulcers, success depends on accurate diagnosis and the management of underlying disease in combination with effective debridement of non-viable tissue.
- Off-loading is essential for successful healing of diabetic foot ulcers.
- Early identification and prompt treatment of infection is essential to prevent complications. In patients with diabetes, this may be difficult as classic signs such as pain, erythema, heat and purulence may be absent or decreased.
- Special dressing techniques may be considered (see **Foot Wounds**, page 31 - 32).

Venous Insufficiency Ulcers

V.A.C.® Therapy can be successfully used in the management of venous insufficiency ulcers.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and Objectives

- Reduce edema
- Promote perfusion
- Remove exudate from wound
- Promote granulation tissue formation
- Provide a closed, optimal wound healing environment

Table 5.7: Recommended settings for venous insufficiency ulcers

Initial cycle	Subsequent cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous Therapy	Continuous Therapy (wounds tend to be highly exudating)	125 - 175 mmHg**	150 - 175 mmHg	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.
** Consider using higher NPWT setting for edamodous wounds

Clinical Considerations for Venous Insufficiency Ulcers

- As with any treatment for venuous insufficiency ulcers, success depends on accurate diagnosis and the management of underlying disease in combination with effective debridement of non-viable tissue.
- Excessive and sudden increase of drainage may indicate need for medical attention for conditions such as infection, inflammatory and systemic health issues and early identification and prompt treatment of infection is essential to prevent complications.

Chronic Wounds/Hard-to-Heal, Non-Acute Wounds

V.A.C.® Therapy can be used either as a definitive treatment to advance wound healing or to optimize the wound bed prior to planning surgical closure.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and objectives

- Promote granulation tissue formation
- Promote perfusion
- Provide a closed, moist wound healing environment
- Help manage an optimal wound environment
- Reduce edema
- Provide barrier to bacterial entry

Table 5.8: Recommended settings for chronic wounds

Initial cycle	Subsequent cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval*
Continuous first 48 hours	Consider Intermittent/Dynamic Pressure Control™ (5 min ON/2 min OFF) for rest of therapy	50 - 125 mmHg**	125 - 175 mmHg Titrate up for more drainage	Every 48 - 72 hours, no less than 3 times/week Infected wounds: Evaluate need for more frequent dressing changes

* See dressing change information in instructions for use provided with the V.A.C.® Dressing.
** The higher pressures within the stated target pressure range are preferred. In cases of intolerance, using lower pressure is an option, but ensure that active exudate removal occurs.

Clinical Considerations

- It is important to identify any underlying etiology and use relevant measures to address underlying disease processes.
- Chronic/Hard-to-heal wounds may benefit from wound hygiene that may include aggressive debridement of the soft tissue to remove any necrosis, senescent cells, or epithelial cells that may have migrated over the wound surface, sinus tract or tunnel.
- Care should be taken to prevent further trauma and or pressure when placing V.A.C.® Tubing, particularly over bony prominences.
- If a patient's skin cannot tolerate frequent dressing changes, and the drape around the wound is intact, you may cut the drape around the foam, remove foam, clean wound as ordered, then replace foam and drape (see **Skin and Periwound Management** section, page 39).

  Note: *Alternatively, Dermatac Drape is a more skin-friendly option with its silicone-acrylic hybrid combination. With its low tack adhesive properties, Dermatac Drape is strong enough to maintain a seal, yet gentle enough to help take the pain out of dressing changes.*

  Note: *Multiple layers of drape may increase the risk of maceration, especially in small wounds, lower extremities or load-bearing areas.*

Flaps

V.A.C.® Therapy is used in the immediate postoperative flap patient as a bolster to maintain the position of the tissues.

The following recommendations help the healthcare provider select therapy settings according to wound type and common physician orders. These recommendations are a guide and can vary based on individual patient conditions. Consult treating physician to verify settings for each patient.

Goals and Objectives

- Provides bolster and stability for flap
- Help protect the wound environment
- Remove fluids and exudate

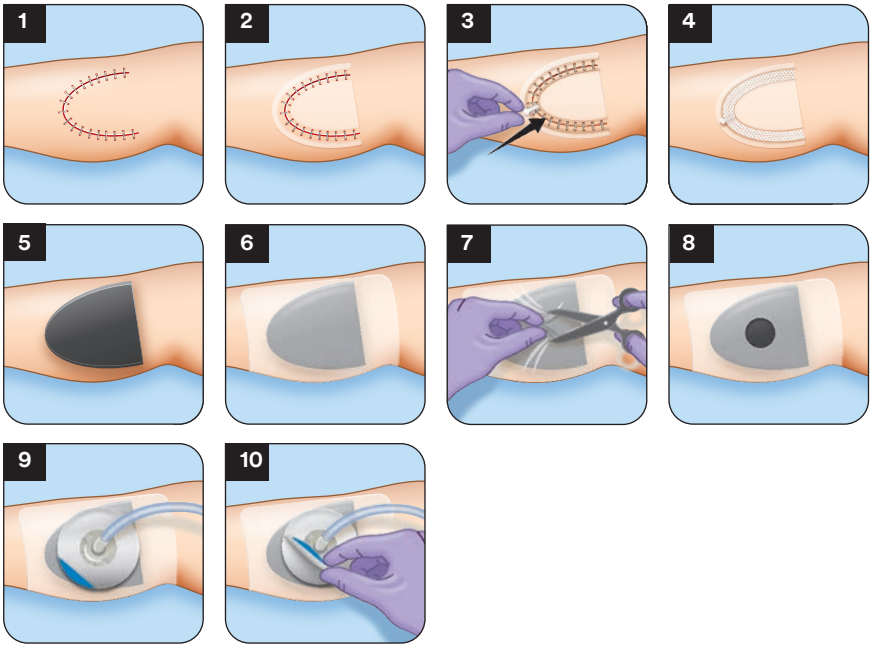
Table 5.9: Recommended settings for flaps

Initial cycle	Target pressure 3M™ V.A.C.® Granufoam™ Dressing	Target pressure 3M™ V.A.C. Whitefoam™ Dressing	Dressing change interval
Continuous for duration of therapy	125 - 150 mmHg	125 - 175 mmHg Titrate therapy up to manage increase in drainage	Remove dressing after 4 to 5 days. Drainage should taper off before removal.

Clinical Considerations

- Higher pressures may be considered with large, bulky flaps to help bolster the flap.

Flap Dressing Application with 3M™ V.A.C.® Therapy



1. Greater spacing will allow V.A.C.® Therapy to remove fluid through the suture line.
2. Place a single layer of drape or other semi-occlusive barrier, such as a hydrocolloid dressing or vapor-permeable adhesive film dressing, over the intact epidermis on top of the flap and on the opposite side of the suture line (Fig. 1). Place a single layer of meshed non-adherent material (page 24) over the exposed suture line (Fig. 2).
3. If the recipient bed is exuding heavily, cut a thin strip of V.A.C. Whitefoam Dressing (Fig. 3) and place it under the flap, between the sutures, to wick fluid from the interior of the flap. Make sure the V.A.C. Whitefoam Dressing and V.A.C.® Granufoam™ Dressing communicate directly.
4. Select an appropriate size of V.A.C.® Granufoam™ Dressing to cover the entire flap (Fig. 4), including the suture line and **2 - 3 cm** beyond the flap. Ensure the area covered by the foam is protected intact skin (Step 2 above).
5. Prepare and apply the drape over the foam. Apply a SensaT.R.A.C. Pad and connect to canister tubing.
6. Initiate therapy on Continuous setting, as indicated in **Table 5.9**.
7. Removal of the drape requires lateral stretch (pull) on the drape to prevent lifting of the flap.

Enteric Fistula

In certain circumstances, V.A.C.® Therapy may help to promote healing in wounds with an enteric fistula. If considering V.A.C.® Therapy involving enteric fistula, it is recommended to seek support from an expert healthcare provider. V.A.C.® Therapy is not recommended or designed for fistula effluent management or containment, but as an aid to wound healing around the fistula.

The goal of therapy depends on whether the fistula being treated is considered acute or chronic.

- For acute fistula, the goal is to promote wound healing to enable closure of the acute enteric fistula.
- For chronic fistula, the enterocutaneous fistula is segregated from the surrounding or adjacent abdominal wound and V.A.C.® Therapy is applied to the wound. The effluent from the fistula is diverted into another containment system. This allows time for the patient's overall health to stabilize and sufficient healing to take place to enable subsequent surgical repair.

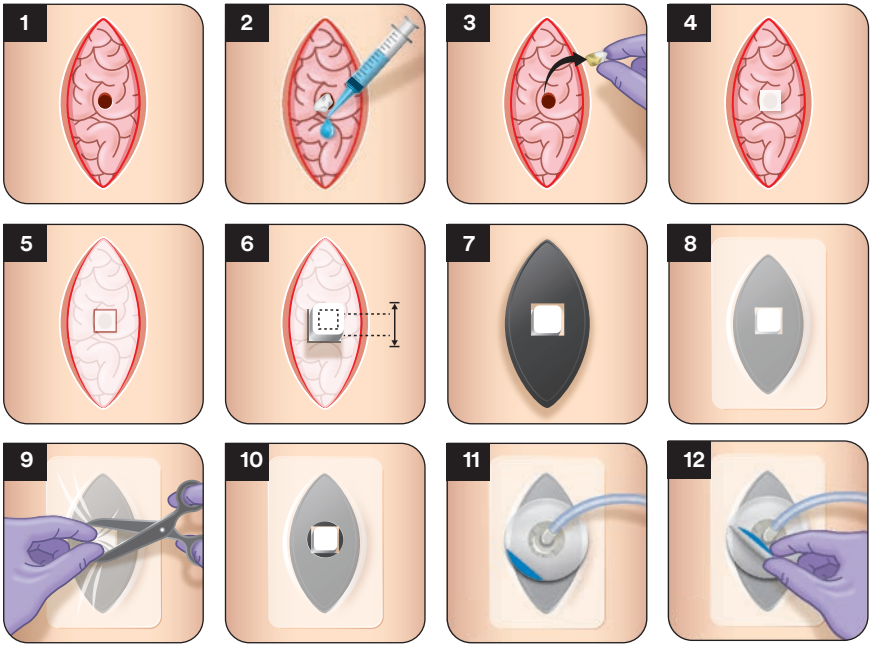
Fistula Management

Acute Candidate Selection	Chronic Candidate Selection
• Enteric Fistula • Acute Formation: No evidence of epithelial cells / growth on opening of fistula • Fistula opening must be easily visualized and accessed • NPO (Nothing by mouth) • TPN (Total Parental Nutrition) • Minimal to moderate amounts of effluent • Effluent is thin to slightly viscous consistency	• Enteric Fistula - non-surgical candidate • Chronic Formation: Evidence of epithelial cells / growth (stomatization) • Mouth of fistula must be easily visualized and accessed • NPO (Nothing by mouth) • TPN (Total Parental Nutrition)

NPO followed by TPN is a recommendation for Acute Fistula only to reduce the amount of effluent when applying the Acute application technique: this technique should only be used for 4 - 7 days. If the effluent has not reduced or fistula has not collapsed, consider applying a fistula segregating technique, NPO status should be evaluated by the physician.

Instructions For Enteric Fistula

I. Acute Enteric Fistula Within a Wound (Complex)



1. Cover the opening of the fistula with 2 - 3 layers of petroleum-based gauze.
2. Thoroughly irrigate and clean the abdominal wound as directed by the physician or institutional protocol.
3. Remove the layers of petroleum-based gauze from the opening of the fistula.
4. Cover the opening of the fistula with a single layer of meshed non-adherent material (page 24).
5. Cover all areas of exposed bowel or other organs with multiple layers of a meshed non-adherent material (page 24).
6. Cut a piece of V.A.C. Whitefoam Dressing to size **1 - 2 cm** larger than the opening of the fistula. Apply the V.A.C. Whitefoam Dressing piece directly over the non-adherent material on the opening of the fistula. The foam should extend **1 - 2 cm** beyond the opening of the fistula.
7. Cut and gently place V.A.C.® Granufoam™ Dressing into the remaining wound. Ensure the V.A.C.® Granufoam™ Dressing is in direct contact with the V.A.C. Whitefoam Dressing. The V.A.C.® Granufoam™ Dressing can also be placed directly over the V.A.C. Whitefoam Dressing.
8. Size, trim and apply the drape to cover the entire foam dressing as well as an additional **3 - 5 cm** border.
9. Cut a **2.5 cm** round hole in the drape DIRECTLY over the location of the opening of the fistula.

10. Apply the SensaT.R.A.C. Pad.
11. Initiate pressure at 125 mmHg negative pressure, or per physician's order.
12. Use continuous therapy throughout treatment.
13. If effluent is noted in the tubing after negative pressure is initiated:
    a. Increase pressure in increments of 25 mmHg for 20 - 30 minutes and then check for effluent.
    b. If effluent is still present, continue to increase the pressure and observe up to a maximum of 200 mmHg until there is no effluent in the tubing.
    c. If effluent continues to flow into the tubing after all measures have been tried, remove V.A.C.® Therapy Dressing and consider reapplication. Reapplication of the dressing may be necessary several times to identify an effective application procedure.
    d. An early sign of initial approximation of the fistula is a reduction in the amount of effluent.
    e. If unable to identify a successful procedure, an alternative method of treating the patient should be considered.

II. Chronic Enteric Fistula - Pouching Method

1. Cover the opening of the fistula with 2 - 3 layers of petroleum-based gauze.
2. Thoroughly irrigate and clean the abdominal wound as directed by per physician order or institution protocol.
3. Remove the layers of petroleum-based gauze from the opening of the fistula.
4. Wrap petroleum-based gauze around the opening of the fistula, this is to segregate the effluent from the wound. If not using petroleum-based gauze consider using pectin rings as this can segregate the effluent from the wound.
5. Place a gauze pad over the opening of the fistula for temporary effluent absorption during initial application of V.A.C.® Therapy.
6. Cover all areas of exposed bowel or other organs with multiple layers of meshed non-adherent material page 24).
7. Cut and gently place V.A.C.® Granufoam™ Dressing into the remaining wound. DO NOT place foam over the opening of the fistula or over the products.
8. Apply drape over the entire abdominal dressing.
9. Apply the SensaT.R.A.C. Pad to a location central to the wound, but not immediately adjacent to the fistula.
10. Initiate V.A.C.® Therapy, ensuring seal is maintained.
11. Mark the area on the drape identifying the site of the opening of the fistula.
12. Turn off the negative pressure and allow the foam to decompress.
13. Carefully cut an opening in the drape that is directly over the gauze pad and opening of the fistula.
14. Remove the gauze pad, exposing the chronic fistula.

15. Apply barrier ring or moldable hydrocolloid paste on the drape in a circle around the opening of the fistula. Gently press the drape around the fistula to seal with the barrier ring or moldable hydrocolloid paste. This encourages effective sealing and isolation of the effluent from the surrounding wound.
16. Initiate V.A.C.® Therapy at a pressure of 100 - 125 mmHg or per physician's order. Observe for compression of the foam.
17. Apply the ostomy appliance or fecal incontinence bag of choice as directed over the exposed fistula and the previously placed ring or paste.
18. Make sure the appliance is securely in place and the end of the appliance is adequately sealed.
19. Use continuous therapy throughout treatment.
20. Monitor intake and output.

6 - Additional Information for 3M™ V.A.C.® Therapy

3M™ V.A.C.® Therapy and Hyperbaric Oxygen (HBO) Therapy

When patients treated with 3M™ V.A.C.® Therapy are receiving regular hyperbaric oxygen treatments, the medical director of the hyperbaric chamber can authorize the disconnection of the V.A.C.® Therapy Unit and canister from the tubing so that pressure changes in the chamber enter the tubing and the dressing. In such cases the following procedure is recommended:

Note: *The 3M™ V.A.C.® Granufoam™ Bridge Dressing contains additional synthetic materials and may pose a risk during Hyperbaric Oxygen Therapy.*

1. Do not take the V.A.C.® Therapy Unit into a hyperbaric oxygen chamber. The V.A.C.® Therapy Unit is not designed for this environment and **should be considered a fire hazard in that environment**. See **Hyperbaric Oxygen Therapy** section (page 13).
2. After disconnecting the V.A.C.® Therapy Unit from the dressing/canister either a) replace the V.A.C.® Dressing with another HBO-compatible material during the hyperbaric treatment or b) follow the steps below.
3. Close the SensaT.R.A.C.™ Pad tubing and canister tubing clamps before disconnecting. Disconnect the SensaT.R.A.C. Pad tubing from the canister tubing.
4. Open the clamp on the SensaT.R.A.C. Pad tubing and cover with dry gauze. The tubing on the SensaT.R.A.C. Pad is not to be clamped or capped during hyperbaric treatment.

   Warning: Never leave a V.A.C.® Dressing in place without active V.A.C.® Therapy for more than two hours. If therapy is off for more than two hours, remove the old dressing and irrigate the wound. Either apply a new V.A.C.® Dressing from an unopened sterile package and restart V.A.C.® Therapy; or apply an alternative dressing, such as wet to moist gauze, as approved during times of extreme need, by treating clinician.

5. After hyperbaric oxygen treatment, reconnect the V.A.C.® Therapy Unit and resume therapy. Check the dressing for air leaks and ensure that the seal is intact.

3M™ V.A.C.® Dressings and Diagnostic Imaging

- When undergoing X-ray, MRI, fluoroscopy or dye tests the decision to remove the dressing is to be made by the radiologist, radiology technician, and/or treating physician.

  Note: *FDA informed healthcare professionals of the possibility that x-rays used during CT examinations may cause some implanted and external electronic medical devices to malfunction. Most patients with electronic medical devices undergo CT scans without any adverse consequences. However, the agency has received a small number of reports of adverse events in which CT scans may have interfered with electronic medical devices, including pacemakers, defibrillators, neurostimulators and implanted or externally worn drug infusion pumps. FDA is continuing to investigate the issue and is working with the manufacturer to raise awareness in the healthcare community.*

- In diagnostic procedures there is a possibility of shadow casting in the area of the wound.
- The dressings and attached tubing can be safely left in place for all of these procedures.
- The 3M™ V.A.C.® Granufoam Silver™ Dressing (when used) contains metallic silver that may impair visualization with certain imaging modalities.

3M™ V.A.C.® Therapy and Magnetic Resonance Imaging (MRI)

When patients treated with V.A.C.® Therapy require MRI, the following special considerations should be used:

- **The V.A.C.® Therapy Unit is MR unsafe.** Do not take the V.A.C.® Therapy Unit into the MR environment (see **Magnetic Resonance Imaging** section, page 13).
- Taking the V.A.C.® Therapy Unit into the active MR environment could cause injury to the patient or caregiver or damage the equipment.
- The V.A.C.® Dressing can typically remain on the patient with minimal risk in an MR environment, assuming that use of V.A.C.® Therapy is not interrupted for more than two hours.
- The V.A.C.® Granufoam™ Dressing, the 3M™ V.A.C. Whitefoam™ Dressing, the SensaT.R.A.C.™ Pad and tubing contain no metallic components that would require removal prior to MRI.
- The V.A.C.® Granufoam Silver™ Dressing has shown to pose no known hazard in an MR environment (see **Magnetic Resonance Imaging** section, page 13).
- The clinician or radiologist may choose to remove the V.A.C.® Dressing prior to imaging in an area where the wound is located due to potential shadowing.

Ordering the 3M™ V.A.C.® Therapy System

All V.A.C.® Therapy systems require a physician's order. The following information should be included for payor authorization:

- Product name: 3M™ V.A.C.® Therapy, no substitutions
- Exact location and type of wound to receive therapy
- Wound dimensions
- Pre-medication instructions
- Wound cleansing instructions (cleanser, normal saline, etc.)
- Therapy settings (i.e., Intermittent/Dynamic Pressure Control™ or Continuous)
- Pressure settings in mmHg
- Dressing change intervals
- Dressings to be used (i.e., V.A.C.® Granufoam™ Dressing, 3M™ Dermatac™ Drape, V.A.C.® Granufoam Silver™ Dressing, specific specialty dressings or V.A.C. Whitefoam Dressing)
- Adjunct dressings to be used (non-adherent materials (page 24) or other)

For more information contact your local 3M representative.

Transitioning Patients Between Care Settings

- Initiate transition documents as soon as possible. Approval and delivery may vary globally.
- When a patient is placed on V.A.C.® Therapy, contact the Discharge Planner/Case Manager if this patient is identified as a candidate for transfer to a lower acuity care setting with V.A.C.® Therapy.
- Include the V.A.C.® Therapy orders, as detailed in the previous section, in the transfer or discharge orders and ensure appropriate supplies have been ordered/coordinated.
- Include current wound measurements and condition of the wound in the discharge assessment.
- When a patient is transitioned from one care setting to another, the V.A.C.® Therapy Unit will be provided prior to discharge or be delivered to the patient's post-acute care setting.
- If the post-acute V.A.C.® Therapy Unit is not available for discharge, and therapy will be off for more than two hours, remove the V.A.C.® Therapy dressings before the patient is discharged. Apply an alternative dressing until the new V.A.C.® Therapy Unit is delivered, and appropriately trained personnel are prepared to provide on-going care of the patient.
- The patient has the cognitive and physical ability to manage a therapy with cords, electric components, and small parts.
- Ensure appropriate NPWT selection based upon patient and wound considerations.
- Dressing changes are recommended to be done under the supervision of a healthcare practitioner.
- For information on transitioning patients to home care, refer to the **Considerations for Transitioning 3M™ V.A.C.® Therapy into Home Care** (page 16) section of these guidelines.
- Contact your local 3M representative for assistance, if needed.

3M Contact Information

If you have questions, or for additional information, please contact your local 3M representative or contact 3M directly at 1-800-275-4524 (US only). Visit our website at 3M.com/medical. For a medical emergency, contact your local emergency number.

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To learn more about 3M™ V.A.C.® Therapy Systems, please visit our website at 3M.com/medical or call us at 1-800-275-4524 (US Only).

Note: Specific indications, contraindications, warnings, precautions and safety information exist for these products and therapies. Please consult a clinician and product instructions for use prior to application. This material is intended for healthcare professionals. Rx only.

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