

*A non-invasive
dynamic and
unique system
that helps promote
wound healing*

V.A.C. ATS®

An Advanced Therapy System for Wound Healing

V.A.C. ATS®
VACUUM ASSISTED CLOSURE™



KCI
The Clinical Advantage

Optimal wound healing with V.A.C.® Therapy™

"Vacuum Assisted Closure™ Therapy can be applied to a wide variety of wounds, improving the quality of life of our patients."

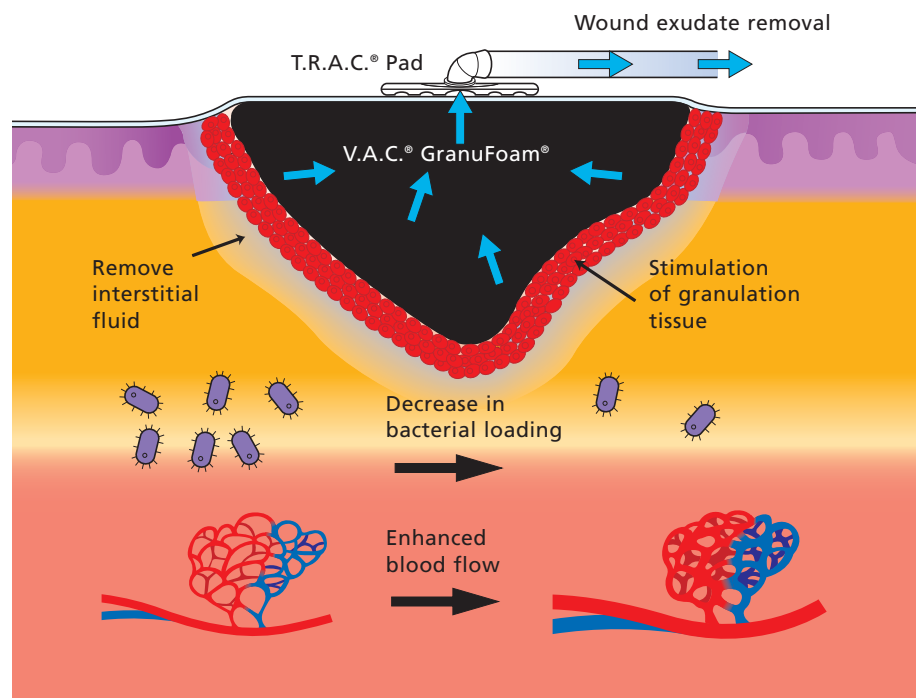
*Louis C. Argenta, MD,
and Michael J. Morykwas, PhD, USA*

The principles of V.A.C.® Therapy

V.A.C.® (Vacuum Assisted Closure) Therapy is a non-invasive, dynamic and unique system that helps promote wound healing.

The V.A.C.® Therapy unit delivers negative (sub-atmospheric) pressure to the wound site applied by a tubing which decompresses a foam dressing, continuously or intermittently (e.g. five minutes on, two minutes off), depending on the type of wound being treated and the clinical objectives.

V.A.C.® Therapy has been used effectively in treating thousands of wounds of different aetiologies in all care settings. Clinicians prescribe V.A.C.® Therapy for many chronic, acute, sub-acute and traumatic wounds, – in the hospital, extended care facility, and in home care.



Deep wound treated with V.A.C.® GranuFoam®

Indications:

Chronic wounds (pressure ulcers and diabetic wounds), sub-acute wounds (surgical dehiscence, abdominal) and acute wounds (traumatic wounds, partial-thickness burns, flaps and grafts).

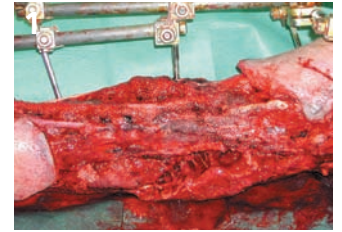
Contraindications:

Contraindicated for patients with malignancy in the wound, untreated osteomyelitis, non-enteric and unexplored fistulae, or necrotic tissue with eschar present. Do not place V.A.C.® dressing over exposed blood vessels or organs.

Precautions:

Precautions should be taken with patients with active bleeding, difficult wound haemostasis, or who are on anticoagulants. Follow Universal Precautions. When placing the V.A.C.® dressing in proximity to blood vessels or organs, take care to ensure that they are adequately protected with overlying fascia, tissue or other protective barriers. Greater care should be taken with respect to weakened, irradiated or sutured blood vessels or organs. Bone fragments or sharp edges could puncture a barrier, vessel or organ. Wounds with enteric fistula require special precautions in order to optimise V.A.C.® Therapy. Refer to the KCI V.A.C.® Therapy Clinical Guidelines for more user information.

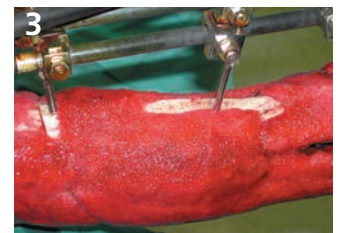
**Lower leg trauma case:
26-year-old male with open
fracture of the lower leg**



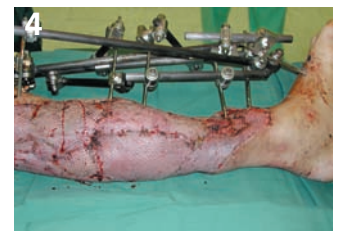
1 Loss of all subcutaneous tissue and muscle necrosis



2 Applying X-Large V.A.C.® GranuFoam® Dressing



3 Granulation tissue formation at 3 weeks



4 Defect covered with free flap and meshed graft on day 29

Photos courtesy of University Clinic for Surgery Graz/ University Clinic for Accident Surgery in Austria*

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“Application of topical negative pressure to wounds accelerates the rate of new tissue formation. A proposed mechanism of action is mechanical deformation of cells with subsequent increased mitosis.”

A. Argenta, K. Webb, J. Simpson, S. Gordon, B. Kortesis, M. Wanner, L. Kremers and M. Morykwas.⁵

V.A.C.® Therapy™ clinical benefits:

- | | |
|---|--|
| <p>1. Provides a closed moist wound healing environment¹</p> | <ul style="list-style-type: none"> ■ Closed moist wound healing environment helps encourage granulation tissue growth at wound site, and helps reduce contamination from outside bacteria ■ Reduces cell death caused by dehydration |
| <p>2. Decreases wound volume²</p> | <ul style="list-style-type: none"> ■ Draws the wound together, approximating the wound edges |
| <p>3. Removes excess fluids that can inhibit wound healing³</p> | <ul style="list-style-type: none"> ■ Helps decrease bacterial colonisation at wound site⁴ |
| <p>4. Helps remove interstitial fluid⁴</p> | <ul style="list-style-type: none"> ■ Removal of interstitial fluid can positively influence reduction in oedema, helping improve blood flow to the wound |
| <p>5. Promotes granulation⁴</p> | <ul style="list-style-type: none"> ■ Controlled, localised negative pressure to help uniformly draw wounds closed ■ Recent studies suggest mechanical stretching may result in increased mitosis (cell replication)⁵ |

¹ Charles K. Field et al. Overview of Wound Healing in a Moist Environment. *American Journal of Surgery*, 1994.

² Joseph E., Hamori CA., Bergman S., Roaf E., Swann N., Anastasi G. Prospective Randomized Trial of Vacuum-Assisted Closure versus Standard Therapy of Chronic Non-healing Wounds. *Wounds*, 2000; 12(3): 60–67.

³ Brian Bucalo MD, William H. Eaglestein, MD, Vincent Falanga, MD. Inhibition of Cell Proliferation by Chronic Wound Fluid. *Wound Repair and Regeneration*, 1993.

⁴ Argenta, L. C., Morykwas, M. J. Vacuum-Assisted Closure: A New Method for Wound Control and Treatment: Animal Studies and Basic Foundation. *Annals of Plastic Surgery*, 1997; 38(6).

⁵ Argenta, A., Webb K., Simpson J., Gordon S., Kortesis B., Wanner M., Kremers L., Morykwas M. Deformation of Superficial and Deep Abdominal Tissues with Application of a Controlled Vacuum. European Tissue Repair Society, Focus group meeting Topical Negative Pressure (TNP) Therapy, 4–6 December 2003, London.

V.A.C. ATS®

An advanced therapy system for

V.A.C. ATS® clinician benefits

- Treats entire range of wound sizes
- T.R.A.C.® technology and Smart Alarms helps to ensure patient safety
- Intuitive, large touch screen with on screen user guide
- T.R.A.C.® Pad simplifies dressing changes
- Large 500 ml canister minimises canister changes
- 4 hour battery life for easier patient transport

Greater patient comfort

- Special filter system minimises wound odour
- Adjustable rate of dressing draw down
- Reduced number of dressing changes and nursing visits over traditional wound care

Intuitive touch screen with on screen user guide

T.R.A.C.® Tubing and Pad ensures patient safety and simplifies dressing changes

V.A.C.® GranuFoam® Treatment of deep wounds

or easier patient care

V.A.C.® ATS
VACUUM ASSISTED CLOSURE™

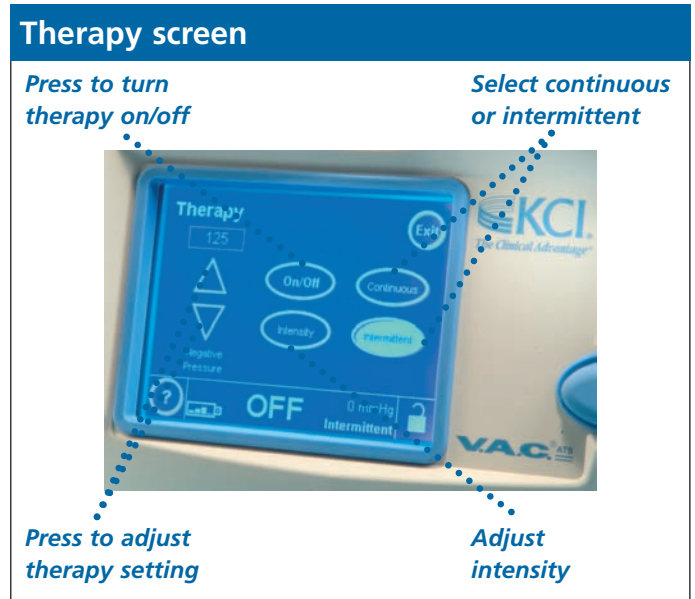
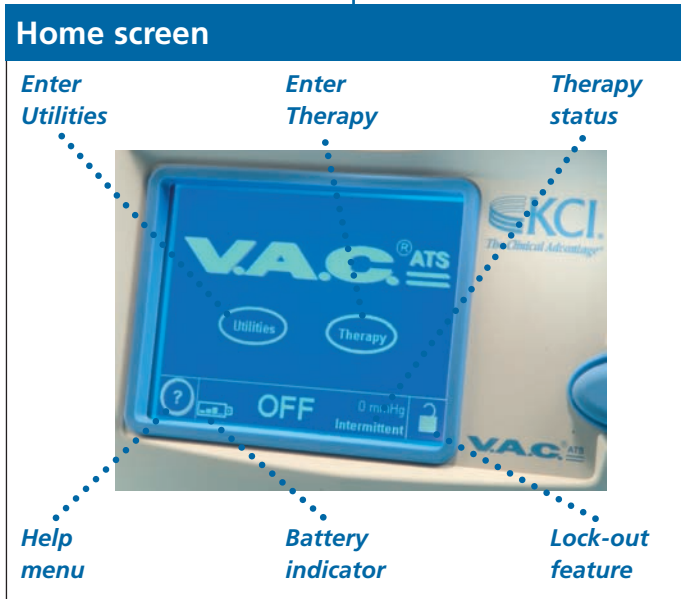


Canister quick
release button

Large 500 ml
canister

V.A.C.® WhiteFoam
Treatment of
superficial wounds

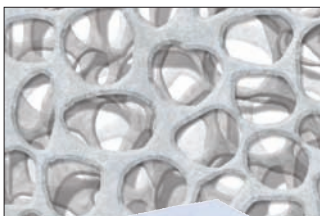
V.A.C. ATS® easy operation



Dedicated dressings for specific wound applications



V.A.C.® GranuFoam® is made of open, reticulated polyurethane (PU) material



V.A.C.® WhiteFoam is made of a micro-porous, polyvinyl alcohol (PVA) material

Chronic and acute wounds can be complex and difficult to heal.

Advanced V.A.C.® Therapy™ dressing systems employ two technologies depending on wound type and desired wound healing goals:

V.A.C.® GranuFoam®

Multiple shapes and sizes to choose from depending on wound.

Main Benefits:

- Helps to stimulate granulation tissue formation
- High drainage capacity, therefore particularly suitable for heavily exudating and infectious wounds

V.A.C.® WhiteFoam

Two dressing sizes to choose from depending on wound.

Main Benefits:

- Ideal for wounds with tunneling and undermining
- Helps promote flap and graft take
- Recommended when granulation tissue growth needs to be controlled for a more comfortable dressing change

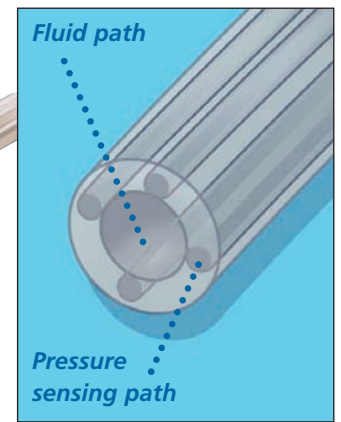
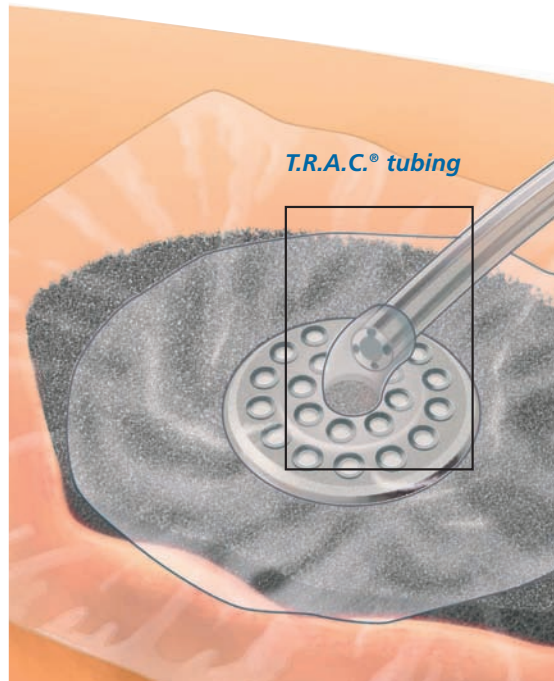
It is also possible to use a combination of the two dressings, e.g. use V.A.C.® WhiteFoam as layer underneath V.A.C.® GranuFoam® to restrict tissue in-growth.

T.R.A.C.® Technology

Provides more effective therapy as target sub-atmospheric pressure is monitored and maintained at the wound site, even during patient movement

Ensures controlled, consistent and therefore, safe V.A.C.® Therapy™:

- Alerts the user of tubing blockage and pressure leakage to maximise patient safety
- Consistent pressure at the wound site regardless of patient movement or positioning
- Enables the rate of dressing draw down to be adjusted, which contributes to your patient's comfort

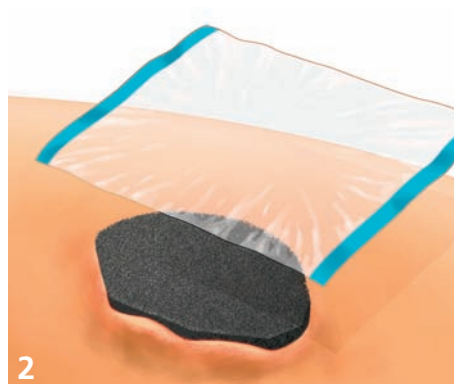


T.R.A.C.® (Therapeutic Regulated Accurate Care)

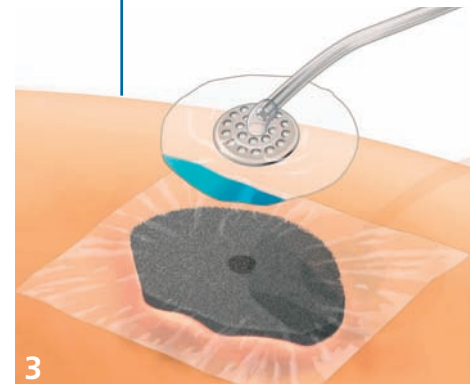
T.R.A.C.® Pad simplifies dressing changes and saves valuable clinician time



1 Cut the V.A.C.® dressing to fit the size and shape of the wound, including tunnels and undermined areas



2 Trim the drape to cover the dressing, plus 3–5 cm border of intact skin



3 Make a small hole in the drape and apply the T.R.A.C.® Pad

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