Elevate the Standard of Incisional Management

Precision, Protection, Enhanced Healing

Pensar Medical™

Surgical incisions require optimal protection to prevent complications and promote healing. Whether you are addressing primary closures or complex surgical procedures, proper incisional management is critical to patient outcomes. The right negative pressure wound therapy (NPWT) solution protects tissue integrity, reduces complications, and helps support the patient's early mobilization. This gives both the surgeons and patients confidence in wound healing recovery.

Two NPWT Solutions. Complete Incisional Management

MicroDoc

Single-Use Incisional NPWT

- For closed, shallow incisions that have low to moderate exudate, MicroDoc will deliver single-use NPWT in a tiny, wearable device.
- Multiple pressure options (-50 mm/Hg, -80 mm/Hg, and -125 mm/Hg) allow customization for therapy based on the wound's tissue quality and the patient's comfort.
- Ideal for closed incisions or shallow wounds with minimal to moderate drainage.
- Convenient, canister-free, lightweight, and discreet, which helps support early ambulation and the patient being able to return to their lifestyle. This has earned praise from both the patient and the staff.

WoundPro+

Traditional NPWT for Incisional Management and Complex Revisional Wounds

For open, deeper, or higher-exudate incisional and revisional wounds, Wound Pro+ provides advanced NPWT in a streamlined system.

- Compact 2-lb control unit with a strong 8 L/min flow rate for effective therapy on complex wounds.
- Flexible pressure settings with continuous, intermittent, and variable intermittent modes to tailor therapy to wound depth, exudate level, and patient comfort.
- Canister-based fluid management for moderate to copious drainage – reducing the risk of maceration and leaks.
- Double the fluid management capacity compared to other products.
- Designed for complex wounds with undermining, tunnels, irregular shapes, or exposed structures requiring traditional NPWT.
- Increased reliability with fewer alarms to enhance patient comfort.

How Closed-Incision NPWT Helps Improve Outcomes

Incisional NPWT provides so much more than surface-level benefits. It also helps to create an optimal wound environment for healing for patients undergoing surgical closure.

Stabilizes the Incision: Maintains approximation and relieves tension on sutures or staples in fragile tissue.

Controls Fluids and Dead Space: Removes excess fluid from wound areas, preventing collection under the skin as seroma or hematoma, particularly in undermined regions.

Enhances the Healing Environment: Improves local blood flow, seals the wound, and protects it from external contamination.

Elevate Incisional Management

A large national database analysis found that overall **inpatient complications occurred in 22% of primary TKAs compared with 28.8% of revision TKAs[1].**

Compromised Tissue: Previously operated, scarred tissue has reduced tensile strength and elasticity, making even a well-closed incision more likely to break down under tension.

Reduced Perfusion: Repeat surgeries damage the microvasculature, limiting oxygen and nutrient delivery. This can slow collagen deposition and remodeling.

Dead Space and Fluid Accumulation: Contours, undermining, and tissue loss increase the likelihood of seroma, hematoma, and bacterial growth.

A 2025 systematic review of closed-incision NPWT in orthopedic trauma surgery notes that NPWT "reduces lateral strain across the incision line" and "minimizes relative motion at the surgical site", "helping maintain a stable environment for wound closure" while 'reducing dehiscence and SSI"[2].

1 Nham FH, Patel I, Zalikha L, El-Othmani MM. Epidemiology of primary and revision total knee arthroplasty: analysis of demographics, comorbidities and outcomes from the national inpatient sample. Arthroplasty. 2023 Apr 2;5(1):18. doi: 10.1186/s42836-023-00175-6. PMID: 37004093; PMCID: PMC10068145.

2 Zhang J, Xu R, Qian J, Cai X. Closed incision management with negative pressure wound therapy: a systematic review and meta-analysis of orthopedic trauma outcomes. BMC Musculoskeletal Disord. 2025 Oct 23;26(1):991. doi: 10.1186/s12891-025-08986-1. PMID: 41131516; PMCID: PMC12548229.

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www.pensarmedical.com | hello@pensarmedical.com | +1 (800) 669-4757

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MicroDoc: Confident Support for Closed Incisions

When the wound is closed but the risks remain, MicroDoc is your go-to prophylactic incisional NPWT solution. It delivers protective negative pressure therapy designed to support healing where tissue integrity is compromised.

Ideal for These Scenarios

Arthroplasty, spine, vascular, abdominal, breast, or plastic surgery incisions that are closed and can benefit from protection with the MicroDoc system.

For Patients with Elevated Risk Factors

Diabetes, obesity, smoking history, immunosuppression, malnutrition, prior dehiscence or SSI, or multiple procedures at the same surgical site.

Why Surgeons Choose MicroDoc

- Perfectly sized for incisional use – eliminates the unnecessary bulk of traditional NPWT systems for low-exudate cases.
- Adjustable pressure options (–50mm/Hg, –80mm/Hg, and –125mm/Hg) allow a tailored approach to tissue condition and comfort.
- Intuitive one-button operation simplifies training and daily use, earning praise from both patients and staff.
- Lightweight, low-profile design encourages early mobilization and patient confidence in recovery.

WoundPro+: Advanced Therapy for Closed Incisions and Complex Revisional Wounds

When the incision is open, unstable, or producing too much exudate for MicroDoc to handle, Wound Pro+ delivers the therapeutic power of traditional NPWT in a compact and portable system.

Best for Complex Incisions and Revision Cases

- Partial or full incision dehiscence following infection or delayed healing.
- High-exudate or multi-layered wounds with tunnels, depth, or irregular geometry.
- Complex incisions and revisions requiring sustained negative pressure and fluid management.

Why Surgeons Choose Wound Pro+

- Management of complex wounds.
- Fully adjustable pressure ranges plus Intermittent, Continuous, and Variable Intermittent modes for complete therapeutic control.
- Canister-based drainage system ideal for moderate to heavy exudate management.
- Multiple dressing configurations – including Y-ports and bridging – to treat diverse or connected wound sites.
- Compact 2-lb unit delivers a strong 8 L/min flow rate in a smaller, easier-to-manage footprint.
- Increased reliability means fewer alarms disturbing patient.

Silverlon Antimicrobial Non-adherent Contact Layer

An added feature we are offering that is ideal for complex incisions and revisions is Silverlon, which provides an extra layer of protection for healing. It helps protect against infection and bioburden when it is needed most.

Example Guide for Incisions

These are mock scenarios for educational use. A full assessment by the ordering physician/surgeon needs to be completed to fully determine appropriate use of sNPWT or tNPWT use. This guide is intended as a sample of common scenarios only.

Scenario	Wound Status & Exudate Levels	System	Why This System
TKA, spine, vascular, ortho, closed with high-risk patient	Closed, shallow, low – moderate exudate	MicroDoc	Prophylactic incisional NPWT to protect a compromised closure and to support early mobilization without a larger pump.
Dehisced revisional abdominal or groin wound after an infection.	Open, moderate – high exudate	WoundPro+	Canister capacity and adjustable pressure for exudate control and granulation in a complex wound.
Complex flap or abdominal wall with undermining.	Open or partially open	WoundPro+	Dressing can be custom to complex geometry.
Closed incision in a patient with multiple systemic risks but still minimal drainage.	Closed, with low exudate	MicroDoc	Single-use will protect the wound and be simplified for the patient.

Important Note: Pensar NPWT systems are not intended for open-abdomen applications with exposed intra-abdominal organs.

For complete indications, contraindications, warnings, precautions, and instructions for use (IFU) please refer to our MicroDoc and Wound Pro+ manuals and IFU's. This material is intended for healthcare professionals only.

Dressing applications should only be done by appropriate medical professionals such as trained licensed physicians, nurses, PA's. NPs, etc. Follow your facility protocols.

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