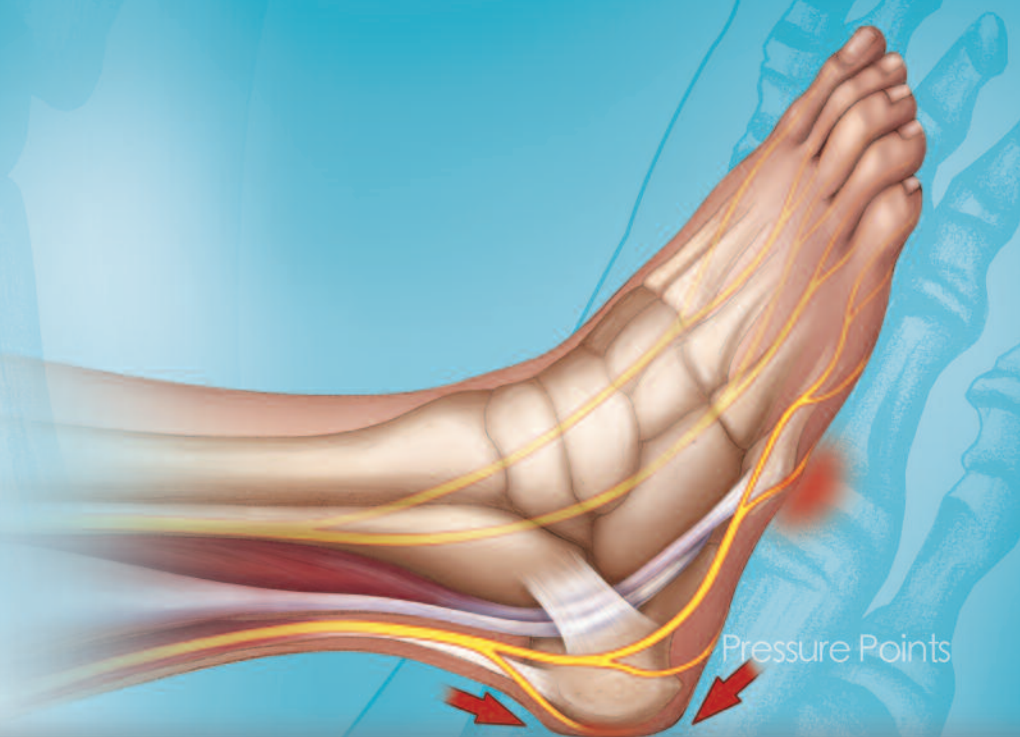
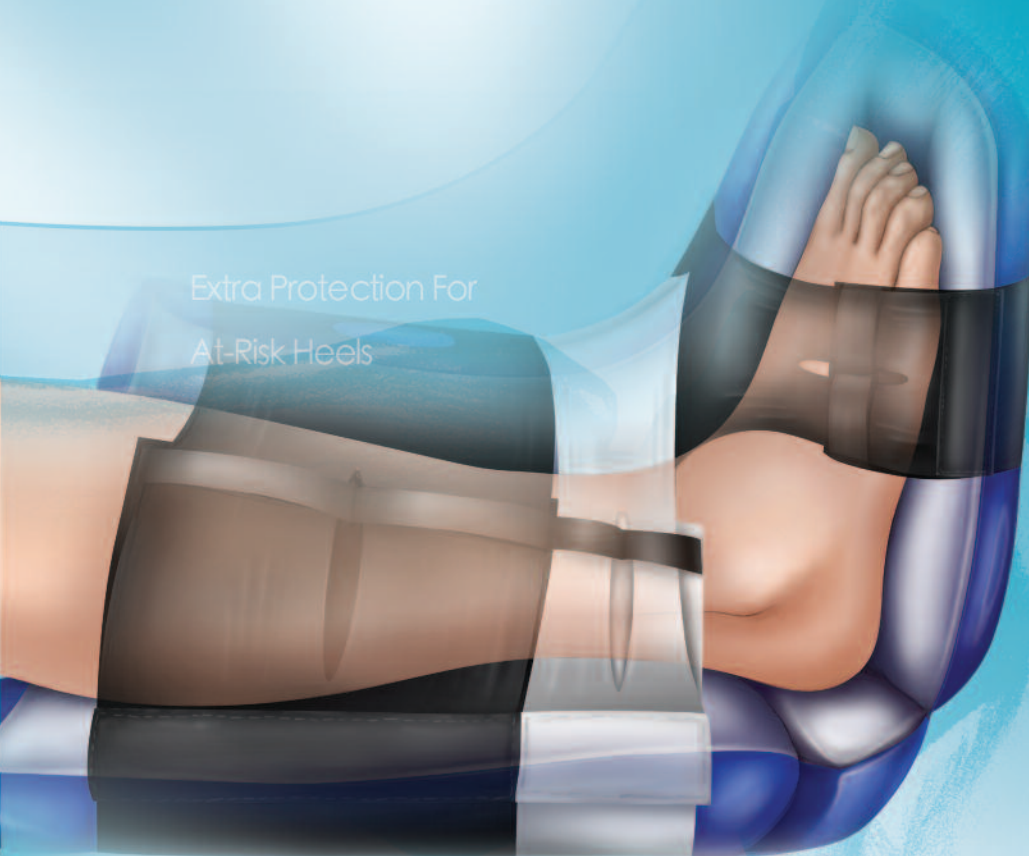


Heel Pressure Ulcers Are Preventable Of all pressure ulcers, 30.3% develop on the heel and 6.1% on the malleolus (ankle bone), the second and third most common sites for site continuous disordered in



## HEEL PROTECTION

Extra Protection For At-Risk Heels



Special support surfaces, such as beds, mattresses and overlays, do not provide complete pressure relief for heels.<sup>12</sup>

Non-ambulatory patients require added protection—their heels must be off-loaded.<sup>12</sup> Prevalon completely off-loads the heel, delivering total, continuous

**SAGE**<sup>®</sup>  
PRODUCTS INC

Simple Interventions.  
Extraordinary Outcomes.

# THE CASE FOR ADVANCED HEEL PROTECTION

## Prevalence, risk, and cost

The heel and ankle bone are the second and fifth most common sites for pressure ulcer development.<sup>1</sup> One study finds 43% of hospital-acquired pressure ulcers (HAPUs) developed on the heel.<sup>2</sup> Despite growing advances in healthcare, pressure ulcers are a bigger problem than ever. So big in fact, that the Centers for Medicare and Medicaid Services (CMS) will no longer reimburse facilities for pressure ulcers not present on admission.<sup>3</sup> Still, HAPUs are “largely preventable.”<sup>4</sup>

## RISK FACTORS FOR HEEL PRESSURE ULCERS

### Impaired mobility

Of the risk factors occurring in patients who develop pressure ulcers, impaired mobility is the most frequent at 87%.<sup>5</sup> Over half also suffer from malnutrition and decreased mental status.

### Surgery

Lying immobile in pre-surgery, during the procedure, and post-op recovery adds up to several hours without proper heel protection. One study shows surgeries greater than three hours accounted for almost 25% of HAPUs, plus 30% to 40% of the total costs.<sup>4</sup>

*“...those who are at significant risk may develop stage I ulcers in less than 2 hours on a standard support surface.”<sup>6</sup>*

### Diabetes

Diabetic patients confined to a bed often keep their heels in the same position due to the loss of sensation. These patients also suffer friction trauma when the patient uses the heel to change body position. These two processes can lead to skin breakdown.<sup>6</sup>

### Various other conditions

Other risk factors include peripheral vascular disease, metastatic cancer and spinal cord injury.<sup>5</sup> While external pressure causes decreased blood flow, it can also result from arteriole disease, diabetes, circulatory problems, decreased hyperemic response and age.<sup>7</sup>

## ENORMOUS HOSPITAL COSTS

The annual cost of treating heel pressure ulcers is a staggering \$2.2 to \$3.6 billion.<sup>4</sup> Costs increase with wound stage, ranging from \$2,000 to \$30,000 for a stage 1, 2 or 3 ulcer, to \$70,000 for complex, full-thickness stage 4 ulcer.<sup>9</sup>

## CMS GETTING TOUGH

### IF IT'S NOT POA, THEY WON'T PAY!

The Centers for Medicare and Medicaid Services (CMS) will no longer reimburse hospitals for pressure ulcers (stage III and IV) not present on admission.<sup>3</sup>

## BEST PRACTICES FOR PREVENTING HEEL PRESSURE ULCERS

### ASSOCIATION OF PERIOPERATIVE REGISTERED NURSES (AORN)

In its recommended practices and guidelines, AORN recommends, among other interventions, that facilities “use devices that eliminate or redistribute pressure” to prevent perioperative\* heel ulcers.<sup>10</sup>

\*Perioperative defined as a pressure-related deep tissue injury under intact skin that presents within the first 5 days following surgical procedures.

## IHI FIVE MILLION LIVES CAMPAIGN<sup>11</sup>

### PREVENT PRESSURE ULCERS

#### 6. Minimize Pressure

*“...Use pillows under the calf to elevate the patient's heels off the bed surface. Place cushioning devices between the legs/ankles to maintain alignment and prevent pressure on bony prominences. (NPUAP clinical guidelines, 1992).”*

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1. Amlung SR, Miller WL, Bosley LM. Adv Skin Wound Care. Nov/Dec 2001;14(6):297-301. 2. Walsh J, DeCampo M, Waggoner D. Keeping heels intact: evaluation of a protocol for prevention of facility-acquired heel pressure ulcers. Poster presented at the Symposium on advanced Wound Care, San Antonio, TX, Apr 2006. 3. Federal Register, Vol. 72, No. 162, 2007 Aug; 47201-47205. 4. Beckrich K, Aronovitch SA. Nursing Economic. Sep/Oct 1999;17(5):263-71. 5. Maklebust J, Magnan MA. Adv Wound Care. Nov 1994;7(6):25, 27-8, 31-4 passim. 6. Levin M. Adv Wound Care. Mar/Apr 1997;10(2):24-30. 7. Wong VK, Stotts NA, JWOCN. Jul 2003; 30(4): 191-8. 8. Folkedahl BA, Frantz R. Prevention of pressure ulcers. Iowa City (IA) University of Iowa Gerontological Nursing Interventions Research Center, Research Dissemination Core; May 2002. 9. Young ZF, Evans A, Davis J. J Nurs Admin (JONA). Jul/Aug 2003;33(7/8):380-3. 10. AORN Standards Recommended Practices & Guidelines 2007. Assoc. Operating Room Nurses.



# PREVALON™ PRESSURE-RELIEVING HEEL PROTECTOR

Prevention protocols and Prevalon effective in reducing heel pressure ulcers and plantar flexion contracture

When it comes to protecting your patient's heels, trust Prevalon Pressure Relieving Heel Protector - the **#1 hospital brand of heel protection**.<sup>12</sup> When used with an effective prevention protocol, Prevalon Pressure-Relieving Heel Protector provides the most advanced protection against heel pressure ulcers and plantar flexion contracture. Incorporating a heel pressure ulcer prevention protocol - combined with early, aggressive implementation of pressure-relieving devices and early identification of high-risk patient populations has been proven to reduce the rate of heel pressure ulcers.<sup>2</sup>

## PROTECT HEELS OF NON-AMBULATORY PATIENTS

Prevalon Pressure-Relieving Heel Protector helps minimize pressure, friction and shear on the feet, heels and ankles of non-ambulatory patients. It completely off-loads the heel delivering total, continuous pressure relief. This provides extra protection-for at risk heels, much more than special support surfaces like beds, mattresses and overlays.<sup>13</sup>

## REDUCE RISK OF PLANTAR FLEXION CONTRACTURE

Prevalon's Contracture Strap maximizes support under the foot helping prevent plantar flexion contracture. It helps prevent Achilles tendon shortening by maintaining the foot at 90° while the patient is in bed, reducing the risk of foot drop.

*"Early and aggressive implementation of pressure-relief and pressure-reduction products as part of the individual care planning process is effective in prevention of heel facility-acquired pressure ulcers."<sup>15</sup>*

## PRESERVE THE NERVE

The Prevalon Foot and Leg Stabilizer Wedge helps prevent lateral foot and leg rotation, and reduces risk to the peroneal nerve which can lead to foot drop.



## EFFECTIVE AGAINST EXISTING HEEL PRESSURE ULCERS

**BEFORE PREVALON**  
2 YEARS OF FAILURE TO HEAL



**AFTER PREVALON**  
2ND MONTH OF INTERVENTION



Intervention with Prevalon for heel protection and silver alginate for wound dressing for two months completely closed wound from existing stage IV pressure ulcer and it eventually healed completely.<sup>15</sup>

### CONT REFERENCES

Jan 15, 2007. 11. Getting started kit: prevent pressure ulcers: how-to guide. Protecting 5 million lives from harm campaign. Institute for Healthcare Improvement (IHI), 2006. 12. GHXTrend Report (Dollars) 2nd Quarter, 2008 Hospital: Annualized markets based on last 4 quarters data. 13. Coats-Bennet U. Critical Care Nursing Quarterly: May 2002;25(1):22-32. 14. Garret D. Intervention with a new heel protection device and silver alginate dressing to prevent amputation of lower leg due to stage IV ulcer of the heel and malleolus. Case study conducted at Salem Village Nursing and Rehabilitation Center, Joliet, IL, Oct 2006. 15. BurdaVA successful heel ulcer prevention program resulting in 95% reduction of heel ulcer incidence. Poster presented at the Symposium on AdvancedWound Care, Tampa, FL, Apr 2007.

# PREVALON™ PRESSURE RELIEVING HEEL PROTECTOR

The most advanced protection against heel pressure ulcers and plantar flexion contracture



## TARGET ZERO

One study finds the right programs, protocols and products can help achieve zero heel pressure ulcers.<sup>1</sup>

- Initial and ongoing skin assessment
- Early and aggressive implementation of prevention protocol
- Application of heel pressure-relieving devices

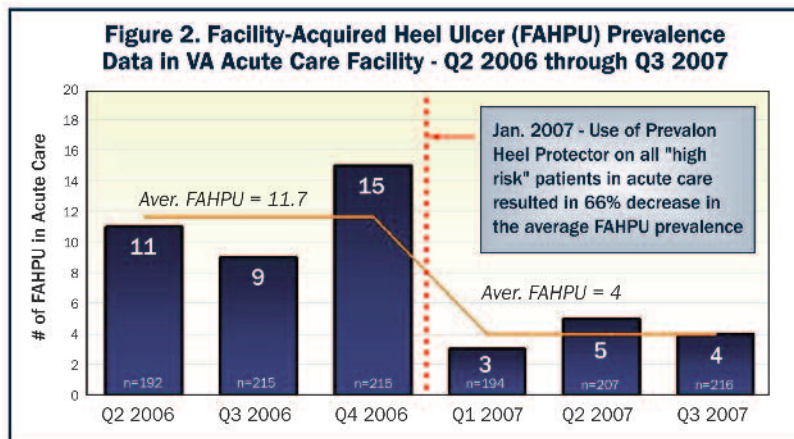
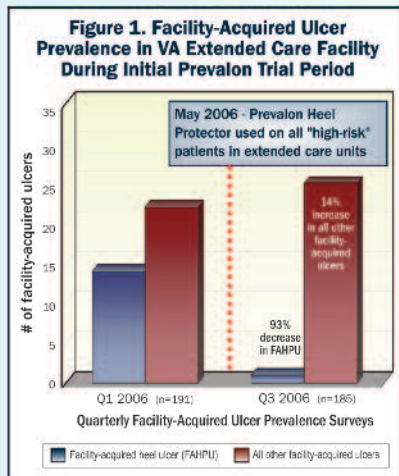
## PREVALON'S PROVEN CLINICAL RESULTS

A study at a 550-bed nursing home aimed to assess the impact of a heel pressure ulcer protection protocol using Prevalon. The facility saw a 95% reduction in heel pressure ulcer development and concluded that Prevalon "significantly reduced the risk of developing heel pressure ulcers in a high-risk population."<sup>2</sup>

Another facility saw a 100% prevention in both heel ulcers and foot drop using Prevalon.<sup>3</sup>

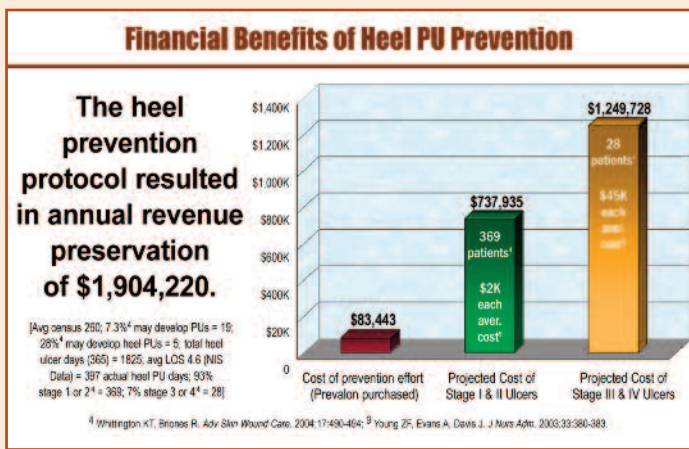
A 5-month trial using Prevalon on all high-risk patients in one facility's extended care unit showed a 93% decrease in heel pressure ulcers, and a subsequent 18-month trial of Prevalon in the acute care unit showed a 66% heel pressure ulcer reduction.<sup>4</sup>

Nurses also ranked Prevalon at a statistically significant, higher level of preference over a waffle-style competitor.<sup>5</sup>



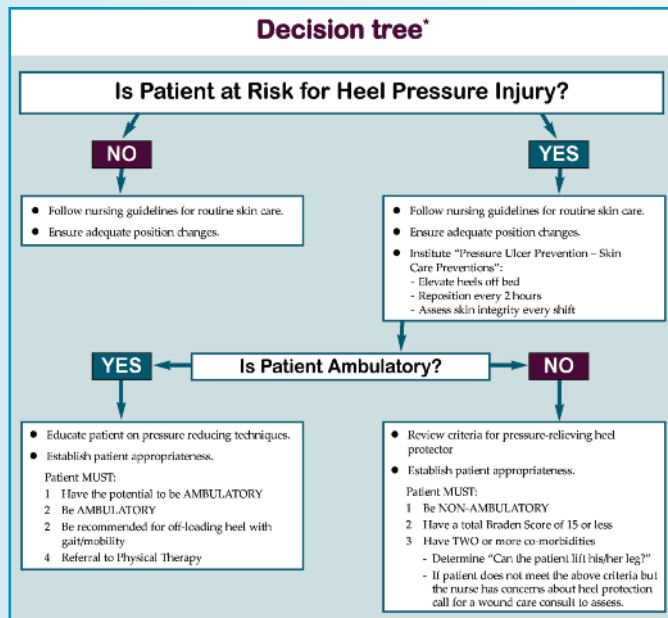
## PROVEN FINANCIAL BENEFITS

Besides a 100% prevention in both heel ulcers and foot drop, an evaluation of Prevalon in one facility compared to the projected costs of treating heel pressure ulcers revealed an annual revenue preservation of \$1.9 million!<sup>3</sup>

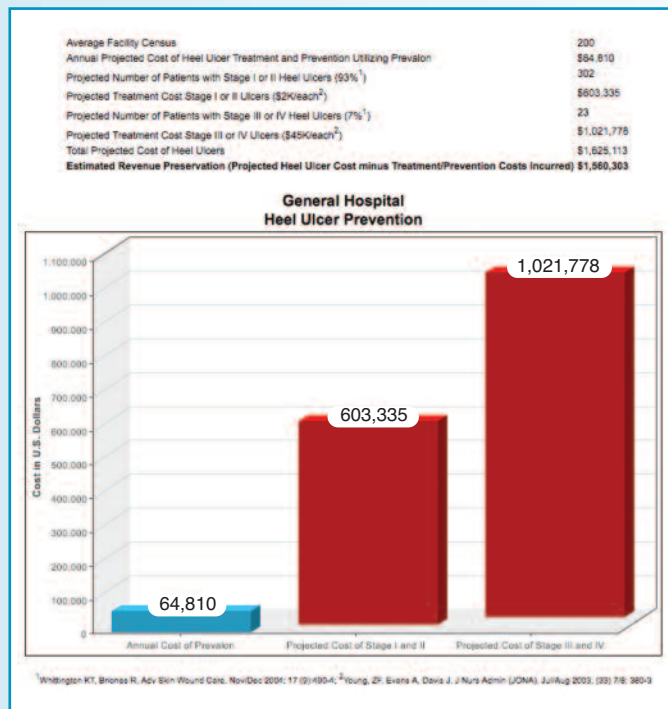


# EFFECTIVE IMPLEMENTATION TOOLS

Two new visual tools can help your facility in implementing a successful heel pressure ulcer prevention program.



\* Developed by Christine Baker, RN, MSN, CWOON, APN



To ensure proper use of Prevalon, a Decision Tree was presented at the 2008 SAWC Conference - clearing up the mystery behind the use of "rigid" ankle-foot orthotics (AFOs) and heel protectors for the non-ambulatory patient.<sup>1</sup>

Poster presented at the Symposium on Advanced Wound Care, San Diego, CA April, 2008. Visit [www.sageproducts.com/education/pSymposiaPres.asp](http://www.sageproducts.com/education/pSymposiaPres.asp)

Need more proof on the positives of Prevalon? Our Cost Justification Tool can help compare your facility's projected annual expense and/or lost reimbursement related to heel ulcer prevention and estimated treatment cost for proper heel off-loading.

See if your facility can see significant cost avoidance by using Prevalon! Visit [www.sageproducts.com/education/pcostJuststart.cfm](http://www.sageproducts.com/education/pcostJuststart.cfm)

## REFERENCES

1. Fowler E, Williams Scott S, Head Over Heels: Best Practices for Preventing Heel Ulcers. Poster presented at the Symposium on Advanced Wound Care, San Diego, CA April, 2008. 2. Burda V, A successful heel ulcer prevention program resulting in 95% reduction of heel ulcer incidence. Poster presented at the Symposium on Advanced Wound Care, Tampa, FL Apr 2007. 3. Meyers T, et al., Strategies to Prevent Heel Pressure Ulcers and Plantar Flexion Contracture in the Ventilator Patient. Poster presented at 3rd Congress of the World Union of Wound Healing Societies: June 4-8, 2008 Toronto, Canada. 4. Brainard N, Ortiz L, Simple low cost intervention saves VA hospital thousands through reduction in heel injury. Poster presented at Institute for Healthcare Improvement (IHI), Orlando, FL, December 2007. 5. Walsh J, DeCampo M, Waggoner D, Keeping heels intact: evaluation of a protocol for prevention of facility-acquired heel pressure ulcers. Poster presented at the Symposium on Advanced Wound Care, San Antonio, TX, Apr 2006.

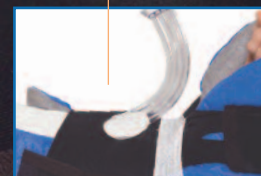


# PREVALON™ PRESSURE-RELIEVING HEEL PROTECTOR

Minimizes pressure, friction, and shear on feet, heels, and ankles of non-ambulatory patients

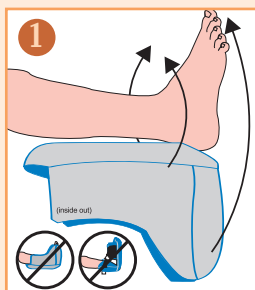
Prevalon provides an easy-to-use and durable way to help protect against heel pressure ulcers and plantar flexion contracture. Our fully adjustable stretch panels provide a secure, comfortable fit. Prevalon's outer surface is constructed with strong, ripstop nylon, the same material used in parachutes and outdoor gear.

Easy to apply, stays on patient's foot. Stretch panels adjust quickly for a secure, comfortable fit. No sharp edges or irritating straps. Breathable fabric provides good air circulation.

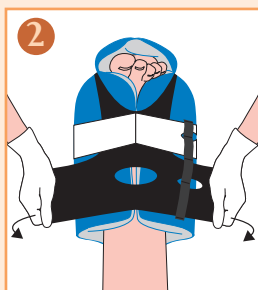


Works with DVT compression devices.

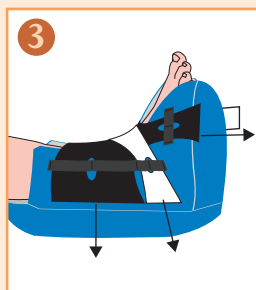
## PREVALON AND PREVALON PETITE GO ON IN SECONDS FOR A SECURE, COMFORTABLE FIT



*Pull boot up around foot.*



*Wrap stretch panels around boot.*

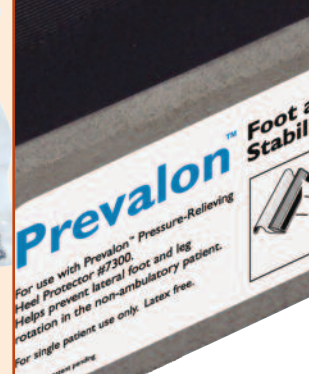


*Adjust straps. Do not overtighten.*

## PROMOTES PROPER UTILIZATION



*Bold, easy instructions printed on every package!*





Built-in, pillow-style cushioning provides proven, support surface. Reduces foot rotation inside boot. Soft comfort-grip interior minimizes friction and shear while keeping foot in proper position.

Tag helps clinicians visualize how to properly apply boot.

Contracture Strap delivers maximum support to the bottom of the foot, to help prevent plantar flexion contracture.

Helps maintain patient's freedom of movement. Durable, exterior slides easily over bed sheets.



Open, floated-heel design completely off-loads heel; allows for easy monitoring between assessments.

Helps keep foot in upright position with pontoon bottom design.



**PREVALON™  
PRESSURE-RELIEVING  
HEEL PROTECTOR**

8 packages/case  
Reorder #7300

2 packages/case  
Reorder #7302

Medicare Reimbursement  
HCPCS Code #E0191



**PREVALON™  
PRESSURE-RELIEVING  
HEEL PROTECTOR WITH WEDGE**

8 packages/case  
Reorder #7355

Medicare Reimbursement  
HCPCS Code #E0191



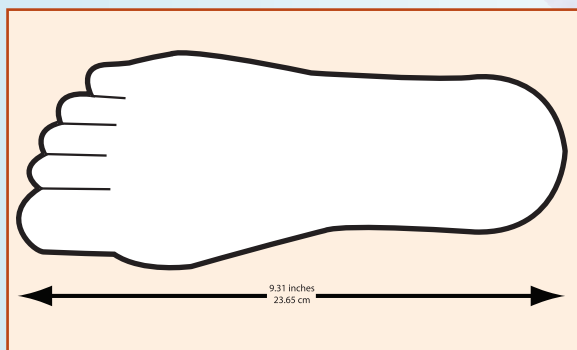
**NEW!**

# PREVALON™ PETITE PRESSURE-RELIEVING HEEL PROTECTOR

Reduce the risk of heel problems in smaller patients

Prevalon Petite is a new, smaller version of Sage's Prevalon Pressure Relieving Heel Protector. This new product is intended for the small profile foot, which remains at high risk for the formation of heel pressure ulcers. Prevalon Petite is intended to fit women's foot sizes 7 or smaller, or a men's size 6 or smaller. This boot properly fits the dimensions of the smaller foot, ankle and calf for better fit, comfort and heel positioning.

Proportionately scaled straps.  
Fits thinner calf and ankle on  
smaller patients.



*For feet smaller than  
9.31 in. / 23.65 cm in length  
Equivalent U.S. shoe sizes:  
Women's 7/Men's 6 and smaller*

## PROMOTES PROPER UTILIZATION



*Bold, easy instructions  
printed on every package!*

Smaller pontoon bottom.  
Off-loads the heels while  
minimizing hyperextension of  
the knees in the smaller patient.



Newly designed for smaller features. Helps prevent skin exposure to seams and stitching.



Contracture Strap delivers maximum support to the bottom of the foot, to help prevent plantar flexion contracture.

Allows smaller patients easy movement. Smaller patients can freely move feet and legs in bed with its low friction exterior surface.



Open, floated-heel design completely off-loads heel; allows for easy monitoring between assessments.



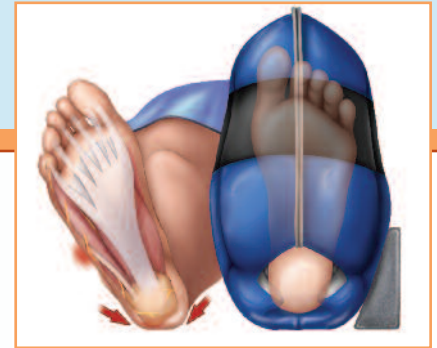
**NEW!** **PREVALON™ PETITE**  
**PRESSURE-RELIEVING**  
**HEEL PROTECTOR**

8 packages/case  
Reorder #7310

2 packages/case  
Reorder #7312

**Medicare Reimbursement**  
HCPCS Code #E0191

# FOOT AND LEG STABILIZER WEDGE



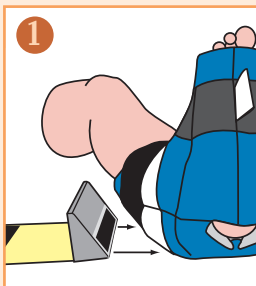
## PREVALON™ FOOT AND LEG STABILIZER WEDGE

10 packages/case  
Reorder #7350

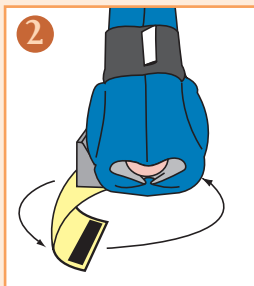
Non-ambulatory patients are at risk for other lower leg complications in addition to heel ulcers. The new Prevalon™ Foot and Leg Stabilizer Wedge works with the Prevalon Heel Protector to help maintain the upright position of the foot, minimizing lateral foot and leg rotation in the highest-risk patients.

- Helps prevent lateral foot and leg rotation in the non-ambulatory patient.
- Helps reduce pressure on the lateral side of the leg, including the peroneal nerve.
- Securely attaches in seconds to the Prevalon Pressure-Relieving Heel Protector.
- Crush-resistant foam withstands weight and constant pressure from patient's leg.

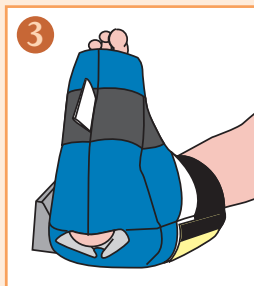
### FOOT AND LEG STABILIZER WEDGE HELP MAINTAIN AN UPRIGHT POSITION OF THE FOOT



1 Place patient's foot in upright position and slide the foam wedge across the mattress onto the outside of Heel Protector (lateral side of leg).



2 Lift leg and slide clear panel under Heel Protector and attach to inside (medial side of leg).



3 Make sure wedge is secured on both sides of Heel Protector and foot is in desired position. Readjust if necessary.

### PROMOTES PROPER UTILIZATION



Bold, easy instructions  
printed on every package!





# THE INTERVENTIONAL PATIENT HYGIENE COMPANY

Born from a core belief in prevention, Interventional Patient Hygiene is a nursing action plan focused on fortifying patients' host defenses with evidence-based care.

By promoting a return to the basics of nursing care, our advanced patient hygiene products and programs help healthcare facilities improve clinical outcomes by reducing the risk of hospital-acquired infection and skin breakdown.

## SIMPLE INTERVENTIONS. EXTRAORDINARY OUTCOMES.



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Customizable Programs For:

- Reducing HAP/VAP Risk Factors
- Reducing Threats to Skin Integrity
- Preventing Incontinence-Associated Dermatitis (IAD)
- Preventing Heel Pressure Ulcers
- Reducing an SSI Risk Factor

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forests, controlled sources and  
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