

**Patient Care Solutions** 

# **PRU**ventor<sup>™</sup> II Heel Off-Loading Device

# **PRUventor<sup>™</sup> II** Heel Off-Loading Device PRODUCT FEATURES & BENEFITS



Static Bilateral Straps: Keeps the foot in a neutral position

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SCD/ICD Exits: Outlined by white stitching for ease of identification

> Anti-Rotation Wedge: ' Helps prevent foot rotation

#### **Ordering Information**

Product #	Description	Length	Quantity
M70-200LB*	Universal w/ Foot Drop Support	13″	6 Ea
M70-200LSB*	Universal w/ Foot Drop Support and Strap	13″	6 Ea
M70-200B	Bariatric w/ Foot Drop Support and Strap	15″	4 Ea

#### Accessories

**Product #** M70-100FW DescriptionCFoam Wedge Only

Quantity 6 Ea



**\*WARNING-** This product can expose you to chemicals including N,n-Dimethylformamide, which is known to the State of California to cause cancer. For more information, go to www.P65Warnings.ca.gov.

## **PRU**ventor<sup>™</sup> **II** CLINICAL PROTOCOL TEMPLATE

## **Preventing Heel Pressure Injury and Plantar Flexion**

#### **POLICY:**

The PRUventor<sup>™</sup> II Heel Off-loading Device will be used on all patients at risk for developing pressure injuries and plantar flexion of the foot. The PRUventor<sup>™</sup> II Anti-Rotation Wedge will be used in conjunction with the heel off-loading device to help prevent external rotation.

#### **PURPOSE:**

To help prevent pressure injuries on the heel by maintaining heel suspension and to help prevent plantar flexion by maintaining the neutral position of the foot.

#### **RISK FACTORS/CONDITIONS:**

- Total Braden Score of 18 or less
- Braden Mobility Score of 1 or 2
- Braden Activity Score of 1 or 2
- Expected Immobility > 6-8 hours
- Inability to move leg or legs, numbress of leg(s), arteriosclerosis of leg(s) (absent pulse, hair)

#### **KEY CO-MORBIDITIES:**

- Diabetes mellitus, stroke, PVD, hemiparesis, quadriparesis, malnutrition (low albumin < 3.5/Braden Nutrition Score of 1 or 2)
- Unconscious, comatose, spinal cord or head injury, peroneal nerve injury, leg or other trauma
- Orthopedic and other surgeries that limit motion of the legs (hip fractures, THR, TKR), leg compartment syndrome
- On medications such as sedatives, paralytics and vasopressive medications

#### **PRODUCT NEEDED:**

PRUventor™ II Heel Off-loading Device with optional Anti-Rotation Wedge

#### **PROCEDURE:**

- 1. Follow skin care procedures for assessment, cleansing, moisturizing and treatment of the heel and foot:
  - a. Remove the heel protector q-shift and inspect the patient's skin for signs of breakdown.
  - b. Cleanse and moisturize the skin daily. Be sure to dry thoroughly prior to re-application of the device.
  - c. Follow your facility's procedures for assessing pedal pulses and performing range of motion exercises.

#### 2. Apply the heel protector on the patient:

- a. Place the heel protector on the bed next to your patient's leg. Make sure all straps are open.
- b. Carefully lift the leg and position the heel over the opening. Support the knee to prevent hyperextension.
- c. With the heel resting in the opening, pull the heel protector's sides up and around the foot, ankle and lower leg. Make sure each side is pulled up completely (to properly seat the heel, ankle and lower leg).
- d. Attach all securement straps and make sure two fingers fit between the straps and the patient's leg.
- e. Verify the heel is positioned in the opening at the bottom of the heel off-loading device. If it is not, reposition the heel and readjust the securement straps.
- f. The heel off-loading device is to be used in bed only. Do not stand or walk while wearing the device.

# 3. Using the heel protector with a sequential compression device:

- a. Put the sequential compression device on the patient according to your facility's protocol.
- b. Follow steps (a) through (d) as explained above.
- c. Before attaching the securement straps, feed the tubing through the opening in the bottom side of the device.
- d. Verify the heel is positioned in the opening at the bottom of the heel off-loading device. If it is not, reposition the heel and readjust the securement straps.
- e. Make sure the tubing is not kinked or compressed against the patient's skin.

#### 4. Cleaning the heel protector:

Wipe down surface using a cloth and/or a hospital approved disinfecting wipe. Air dry completely prior to reapplication. Do not use bleach or oxidizing agents.

#### 5. Documentation:

Document completion of the procedure on the appropriate form.

## **PRUventor<sup>TM</sup> II** COMPARISON STUDY

### Study Objective:

To investigate the efficacy of 6 heel off-loading methods commonly used in clinical settings to decrease contact pressures on the heel.

### Methods:

- Heel contact pressures were evaluated in underweight, normal weight, and overweight simulations
- Pressure mapping measured between foot and the device
- Bench-side study

## Outcomes:

- **PRUventor™II Heel Off-Loading Device** exhibited significantly lower average pressure values than other off-loading strategies used
- **PRUventor™II Heel Off-Loading Device** suspends the heel in the boot from the surface

# **PRUventor<sup>™</sup> II** Heel Off-Loading Device

# A Summary of **Pressure Injury Prevention:** Effectiveness of Heel Off-Loading Methodologies

### Comparison of average heel pressure and off-loading techniques



### Comparison of pressure mapping of heel off-loading techniques



The data averages for each off-loading condition is separated by the loading amount. Standard error bars are displayed for each data set. Averages cover a twelve frame mask of heel forces averaged together over a ten second interval. Asterisks denote data significance as according to paired t-tests with a 5% significance level.



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