



# CIGNA MEDICAL COVERAGE POLICY

The following Coverage Policy applies to all health benefit plans administered by CIGNA Companies including plans formerly administered by Great-West Healthcare, which is now a part of CIGNA.

Effective Date ..... 2/15/2011  
Next Review Date ..... 2/15/2013  
Coverage Policy Number ..... 0042

## Subject Pressure Reducing Surfaces

### Table of Contents

|                                  |    |
|----------------------------------|----|
| Coverage Policy .....            | 1  |
| General Background .....         | 3  |
| Coding/Billing Information ..... | 7  |
| References .....                 | 8  |
| Policy History .....             | 10 |

### Hyperlink to Related Coverage Policies

Electrical Stimulation for Wound Healing  
Hospital Beds and Accessories  
Hyperbaric Oxygen Therapy Systemic and Topical  
Negative-Pressure Wound Therapy/Vacuum-Assisted Closure (VAC) for Non-Healing Wounds  
Pulsed Electromagnetic Therapy  
Tissue-Engineered Skin Substitutes and Platelet-Derived Growth Factors

### INSTRUCTIONS FOR USE

Coverage Policies are intended to provide guidance in interpreting certain **standard** CIGNA HealthCare benefit plans. Please note, the terms of a customer's particular benefit plan document [Group Service Agreement (GSA), Evidence of Coverage, Certificate of Coverage, Summary Plan Description (SPD) or similar plan document] may differ significantly from the standard benefit plans upon which these Coverage Policies are based. For example, a customer's benefit plan document may contain a specific exclusion related to a topic addressed in a Coverage Policy. In the event of a conflict, a customer's benefit plan document **always supercedes** the information in the Coverage Policies. In the absence of a controlling federal or state coverage mandate, benefits are ultimately determined by the terms of the applicable benefit plan document. Coverage determinations in each specific instance require consideration of 1) the terms of the applicable benefit plan document in effect on the date of service; 2) any applicable laws/regulations; 3) any relevant collateral source materials including Coverage Policies and; 4) the specific facts of the particular situation. Coverage Policies relate exclusively to the administration of health benefit plans. Coverage Policies are not recommendations for treatment and should never be used as treatment guidelines. Proprietary information of CIGNA. Copyright ©2011 CIGNA

## Coverage Policy

Coverage for pressure reducing support surfaces is subject to the terms, conditions and limitations of the applicable benefit plan's Durable Medical Equipment (DME) benefit and schedule of copayments. In addition, certain mattresses, including but not limited to non-powered mattresses, are specifically excluded under many benefit plans. Please refer to the applicable benefit plan document to determine benefit availability and the terms, conditions and limitations of coverage. Under many benefit plans, coverage for DME is limited to the lowest-cost alternative.

If coverage for the specific pressure reducing support surfaces requested is available, the following conditions of coverage apply.

CIGNA covers pressure reducing support surfaces as medically necessary when the following criteria are met:

- **A Group 1 pressure reducing support surface** (HCPCS codes E0181, E0182, E0184, E0185, E0186, E0187, E0196, E0197, E0198, E0199, and A4640) is covered as medically necessary when the individual has prodromal skin changes consistent with the development of a pressure ulcer **OR** cannot independently make changes in body position significant enough to alleviate pressure **AND** is at risk for developing a pressure ulcer **AND** one of the following criteria is met:

- fecal or urinary incontinence
  - altered sensory perception
  - compromised circulatory status
- **A Group 2 pressure reducing support surface** (HCPCS codes E0193, E0277, E0371, E0372, and E0373) is covered as medically necessary when **ONE** of the following criteria is met:
    - Large or multiple Stage III or IV pressure ulcers are present on the trunk or pelvis.
    - A myocutaneous flap or skin graft has been performed within the past 60 days for a pressure ulcer on the trunk or pelvis **AND** the individual has been on a Group 2 or 3 support surface immediately prior to a recent discharge from a hospital or nursing facility (discharge within the past 30 days). Following myocutaneous flap or skin graft, coverage is usually limited to 60 days from the date of surgery.
    - Multiple Stage II pressure ulcers are located on the trunk or pelvis and have not improved over the past month despite the use of an appropriate Group 1 support surface **AND** a comprehensive ulcer treatment program that includes:
      - education of the individual and caregiver on the prevention and/or management of pressure ulcers
      - regular assessment by a nurse, physician or other licensed health care practitioner (i.e., usually at least weekly for an individual with a Stage III or IV ulcer)
      - appropriate turning and positioning
      - appropriate wound care for a Stage II, III, or IV ulcer
      - appropriate management of moisture/incontinence
      - nutritional assessment and intervention consistent with the overall plan of care
  - **A Group 3 pressure reducing support surface (HCPCS code E0194)** is covered as medically necessary when **ALL** of the following criteria are met:
    - The individual has a Stage III or Stage IV pressure ulcer.
    - The individual is bedridden or chair-bound as a result of severely limited mobility.
    - Without an air-fluidized bed, the individual would require institutionalization.
    - The air-fluidized bed is ordered following a comprehensive assessment and evaluation of the individual after at least 30 days of the following conservative medical management has been attempted without success:
      - education of the individual and caregiver on the prevention and/or management of pressure ulcers
      - assessment by a physician, nurse or other licensed health care practitioner at least weekly
      - appropriate turning and positioning
      - use of a Group 2 support surface, if appropriate
      - appropriate wound care
      - appropriate management of moisture/incontinence
      - nutritional assessment and intervention consistent with the overall plan of care
    - None of the following contraindications to the use of an air-fluidized bed pertain:
      - There is severe coexisting pulmonary disease (lack of firm back support makes coughing ineffective, and dry air inhalation thickens pulmonary secretions).
      - Treatment is required that utilizes wet soaks or moist dressings that are not protected by an impervious covering, such as plastic wrap or other occlusive material.
      - The caregiver is unwilling or unable to provide the type of care required for an individual on an air-fluidized bed.
      - The structural support is inadequate to sustain the weight of an air-fluidized system, which generally weighs at least 1600 pounds.

- The existing electrical system cannot adequately support the anticipated increase in energy consumption.
- 

## General Background

This information on pressure reducing surfaces has been developed through consideration of medical necessity and generally accepted standards of medical practice, as well as review of medical literature and government approval status.

A pressure ulcer is a result of pathologic changes in blood supply to the dermal and underlying tissues, usually because of compression of the tissue over a bony prominence. Chronic ulcers of the skin include arterial ulcers, venous stasis ulcers, diabetic ulcers, and pressure ulcers. Pressure ulcers generally appear in soft tissue over a bony prominence (Thomas, 2010).

Initial treatment for pressure ulcers is to relieve pressure by positioning the patient frequently and at a fixed interval to relieve pressure over the compromised area. A number of medical devices are designed to relieve pressure. The choice of devices should be based on durability, ease of use, and patient comfort. A check for bottoming out is generally done for all devices. To check for bottoming out, the hand is inserted palm upward under the patient's sacrum between the device and the bed surface. It is recommended that if no air column is apparent between the patient and the bed surface, the device is ineffective and should be changed. Also, it is suggested that patients who fail to improve, or who have multiple pressure ulcers, should be considered for a dynamic-type device, such as a low-air-loss bed or air-fluidized bed (Thomas, 2010).

Other factors that guide treatment of pressure ulcers include treating pain; assessing nutrition and hydration; removing necrotic debris, maintaining a moist wound environment, which is associated with more rapid healing rates compared to dressings that are allowed to dry; encouraging granulation tissue formation and promote re-epithelialization; and to control infection (Thomas, 2010).

### Staging of Pressure Ulcers

When evaluating pressure ulcers, a staging system is typically used that measures tissue destruction by classifying wounds according to the tissue layers involved. In 2007, the National Pressure Ulcer Advisory Panel (NPUAP) redefined the definition of a pressure ulcer and the stages of pressure ulcers, including the original four stages and adding two stages on deep tissue injury and unstageable pressure ulcers. The stages are defined by the NPUAP as follows:

- Suspected Deep Tissue Injury: Purple or maroon localized area of discolored intact skin or blood-filled blister due to damage of underlying soft tissue from pressure and/or shear. The area may be preceded by tissue that is painful, firm, mushy, boggy, warmer or cooler as compared to adjacent tissue.  
  
Further description: Deep tissue injury may be difficult to detect in individuals with dark skin tones. Evolution may include a thin blister over a dark wound bed. The wound may further evolve and become covered by thin eschar. Evolution may be rapid exposing additional layers of tissue even with optimal treatment.
- Stage I: Intact skin with non-blanchable redness of a localized area usually over a bony prominence. Darkly pigmented skin may not have visible blanching; its color may differ from the surrounding area.  
  
Further description: The area may be painful, firm, soft, warmer or cooler as compared to adjacent tissue. Stage I may be difficult to detect in individuals with dark skin tones. May indicate "at risk" persons (a heralding sign of risk).
- Stage II: Partial thickness loss of dermis presenting as a shallow open ulcer with a red pink wound bed, without slough. May also present as an intact or open/ruptured serum-filled blister.

Further description: Presents as a shiny or dry shallow ulcer without slough or bruising. This stage should not be used to describe skin tears, tape burns, perineal dermatitis, maceration or excoriation. Bruising indicates suspected deep tissue injury.

- Stage III: Full thickness tissue loss. Subcutaneous fat may be visible but bone, tendon or muscle are not exposed. Slough may be present but does not obscure the depth of tissue loss. May include undermining and tunneling.

Further description: The depth of a stage III pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and stage III ulcers can be shallow. In contrast, areas of significant adiposity can develop extremely deep stage III pressure ulcers. Bone/tendon is not visible or directly palpable.

- Stage IV: Full thickness tissue loss with exposed bone, tendon or muscle. Slough or eschar may be present on some parts of the wound bed. Often include undermining and tunneling.

Further description: The depth of a stage IV pressure ulcer varies by anatomical location. The bridge of the nose, ear, occiput and malleolus do not have subcutaneous tissue and these ulcers can be shallow. Stage IV ulcers can extend into muscle and/or supporting structures (e.g., fascia, tendon or joint capsule) making osteomyelitis possible. Exposed bone/tendon is visible or directly palpable.

- Unstageable: Full thickness tissue loss in which the base of the ulcer is covered by slough (yellow, tan, gray, green or brown) and/or eschar (tan, brown or black) in the wound bed.

Further description: Until enough slough and/or eschar is removed to expose the base of the wound, the true depth, and therefore stage, cannot be determined. Stable (dry, adherent, intact without erythema or fluctuance) eschar on the heels serves as "the body's natural (biological) cover" and should not be removed.

**Group 1 Pressure Reducing Support Surfaces:** These include HCPCS codes that stand for static overlays and mattress replacements:

- **Pressure Pads for Mattresses:** Code E0185 and codes E0197 through E0199, termed pressure pad for mattress, represent nonpowered pressure reducing mattress overlays. These devices are designed to be placed on top of standard hospital or home mattresses.
  - A gel mattress overlay (E0185) is a gel layer with a height of two or more inches.
  - An air mattress overlay (E0197) is characterized by interconnected air cells that have a cell height of three or more inches and are inflated with an air pump.
  - A water mattress overlay (E0198) is characterized by a filled height of three or more inches.
  - A foam mattress overlay (E0199) possesses the following characteristics:
    - base thickness of two or more inches and either of the following:
      - peak height of three or more inches if the overlay is convoluted (e.g., egg crate)
      - overall height of at least three inches if the overlay is not convoluted
    - foam of such density and other qualities that it provides adequate pressure reduction
    - durable waterproof cover
- **Nonpowered Pressure Reducing Mattresses**
  - An air, water or gel mattress (E0186, E0187, E0196) has the following characteristics:
    - height of five or more inches of the air, water or gel layer
    - durable, waterproof cover
    - can be placed directly on a hospital bed frame

- A foam mattress (E0184) has the following characteristics:
  - height of five or more inches
  - foam of such density and other qualities that it provides adequate pressure reduction
  - durable waterproof cover
  - can be directly placed on a hospital bed frame
- **Powered Pressure Reducing Mattress Overlay Systems:** Codes E0181, E0182, and A4640 represent powered pressure reducing mattress overlay systems (alternating pressure or low air loss) that have the following characteristics:
  - An air pump or blower provides either sequential inflation and deflation of air cells or low interface pressure throughout the overlay.
  - The inflated cell height of the air cells through which air circulates is two and one-half inches or more.
  - The height of the air chambers, proximity of the air chambers to one another, frequency of air cycling (for alternating pressure overlays), and air pressure provide adequate patient lift, reduce pressure and prevent bottoming out.

**Group 2 Pressure Reducing Support Surfaces:** These include HCPCS codes that are defined as follows:

- **Powered Pressure Reducing Mattress:** Code E0277 stands for a powered pressure reducing mattress (alternating pressure, low air loss, or powered flotation without low air loss) that has the following characteristics:
  - An air pump or blower provides either sequential inflation and deflation of the air cells or low interface pressure throughout the mattress.
  - The inflated cell height of the air cells through which air circulates is five inches or more.
  - The height of the air chambers, proximity of the air chambers to one another, frequency of air cycling (for alternating pressure mattresses), and air pressure provide adequate patient lift, reduce pressure and prevent bottoming out.
  - The surface is designed to reduce friction and shear.
  - The surface can be placed directly on a hospital bed frame.
- Code E0193 describes a semi-electric or total electric hospital bed with a fully integrated powered pressure reducing mattress which has all the characteristics defined above.
- **Advanced Nonpowered Pressure Reducing Mattress Overlay:** Code E0371 describes an advanced, nonpowered pressure reducing mattress overlay with the following characteristics:
  - The height and design of individual cells provide significantly more pressure reduction than in a group 1 overlay and prevent bottoming out.
  - The total height is three inches or more.
  - The surface is designed to reduce friction and shear.
  - There is documented evidence to substantiate that the product is effective in treating conditions described by the coverage criteria for group 2 support surfaces.
- **Powered Pressure Reducing Mattress Overlay:** Code E0372 describes a powered pressure reducing mattress overlay (low air loss, powered flotation without low air loss, or alternating pressure) with the following characteristics:
  - An air pump or blower provides either sequential inflation and deflation of the air cells or low interface pressure throughout the overlay. The inflated cell height of the air cells through which air circulates is 3.5 inches or more.

- The height of the air chambers, proximity of the air chambers to one another, frequency of air cycling (for alternating pressure overlays), and air pressure provide adequate patient lift, reduce pressure and prevent bottoming out.
  - The surface is designed to reduce friction and shear.
- **Advanced Nonpowered Pressure Reducing Mattress:** Code E0373 describes an advanced, manually powered pressure reducing mattress with the following characteristics:
    - The height and design of individual cells provide significantly more pressure reduction than those in a group 1 mattress and prevent bottoming out.
    - The total height is five inches or more.
    - The surface is designed to reduce friction and shear.
    - There is documented evidence to substantiate that the product is effective in treating conditions described by the coverage criteria for group 2 support surfaces.
    - The mattress can be placed directly on a hospital bed frame.

**Group 3 Pressure Reducing Support Surfaces** are described by a single HCPCS code, defined as follows:

- **Air-Fluidized Bed:** Code E0194 describes an air-fluidized bed, a device with **ALL** of the following characteristics:
  - The bed employs circulation of filtered air through silicone-coated ceramic beads, creating the characteristics of fluid.
  - The bed consists of a tank filled with silicone-coated microsphere beads that resemble grains of sand.
  - The tank is covered with a loose-fitting filter sheet that separates the patient from the beads.
  - Room air is drawn into the base unit, then filtered, heated and pushed into the tank through a diffuser board.
  - The airflow suspends the beads, causing them to take on properties of a fluid.
  - The sheet moves freely above the patient through the fluid. Usually, the patient sinks only 4–6 inches into the beads, and the pressure put on the skin is well below capillary closing pressure.
  - The sheet is permeable to the downward flow of body fluids (e.g., wound drainage, urine, perspiration). As body fluids come in contact with the beads, the beads clump and drop to the bottom of the tank, where the alkaline environment kills the bacteria. The clumps are removed during routine maintenance.
  - Patient transfers in and out of bed may be difficult and, in most models, the head cannot be elevated.
  - When the airflow is turned off, the beads settle into a mold around the body, creating a support surface that stabilizes the patient for nursing care, wound cleaning and other care needs.

### Literature Review

In a multi-center, randomized controlled trial, Nixon et al. (2006b) tried to determine whether there are differences between alternating pressure overlays and alternating pressure mattresses in the development of new pressure ulcers, healing of existing pressure ulcers, and patient acceptability. Participants (n=1972) were randomized to an alternating pressure mattress (n=982) or an alternating pressure overlay (n=990). The outcome measure was the proportion of participants developing a new pressure ulcer of grade 2 (i.e., partial thickness wound involving epidermis/dermis only) or worse; time to development of new pressure ulcers; proportion of participants developing a new ulcer within 30 days; healing of existing pressure ulcers; and patient acceptability. The patients were at least 55 years of age, admitted to vascular, orthopedic, medical, or care of elderly people wards, either as acute or elective admissions, in the previous 24 hours. Other eligibility criteria included an expected length of stay of at least seven days and either limitation of activity and mobility or an existing pressure ulcer of grade 2. Intention to treat analysis found no difference in the proportion of participants developing a new pressure ulcer of grade 2 or worse (10.7% overlay patients, 10.3% mattress patients; difference 0.4%, 95% confidence interval—2.3%–3.1%, p=0.75). More overlay patients requested change to a mattress owing to dissatisfaction (23.3%) than mattress patients (18.9%, p=0.02).

In a multi-center retrospective study, Ochs et al. (2005) compared pressure ulcer healing rates between different support surfaces. Data was analyzed from eligible nursing home residents (n=664) enrolled in the National

Pressure Ulcer Long-Term Care Study. Support surfaces were categorized as Group 1 (i.e., static overlays and replacement mattresses), Group 2 (i.e., low air loss beds, alternating pressure, and powered/nonpowered overlays/mattresses) and Group 3 (i.e., air-fluidized beds). Pressure ulcer healing rates were greatest for Stage III/IV ulcers on Group 3 surfaces versus Group 1 or 2 surfaces. Residents on Group 1 and Group 3 surfaces had fewer hospitalizations and emergency room visits than those on Group 2 surfaces despite significantly greater illness in residents on Group 2 and 3 versus Group 1 surfaces.

In a systematic review, Reddy et al. (2006) studied various interventions to prevent pressure ulcers. Fifty-nine randomized controlled trials (RCTs) were selected. Interventions in the studies were grouped into three categories (i.e., addressing impairments in mobility, nutrition, or skin health). Strategies that addressed impaired mobility included the use of support surfaces, mattress overlays on operating tables, and specialized foam and sheepskin overlays. The authors concluded that “given the current evidence, using support surfaces, repositioning the patient, optimizing nutrition status, and moisturizing sacral skin are appropriate strategies to prevent pressure ulcers. Although a number of RCTs have evaluated preventive strategies for pressure ulcers, many of them had important methodological limitations. There is a need for well-designed RCTs that follow standard criteria for reporting nonpharmacological interventions.”

An updated Cochrane review by McInnes et al. (2008) assessed the effectiveness of support services for prevention of pressure ulcers. For this second update 11 trials met the inclusion criteria bringing the total number of randomized controlled trials included in the review to 52. The authors concluded that the use of higher specification foam mattresses can reduce the risk of pressure ulcers in high risk patients, as compared to the standard hospital foam mattress. The health outcomes are unclear for alternating and constant low pressure devices, and of the different alternating pressure devices in the prevention of pressure ulcers.

### Summary

The accepted standard in clinical practice for the prevention and treatment of pressure ulcers is to turn patients manually at frequent intervals and to use a pressure reducing surface. The clinical outcomes from a limited number of clinical studies have proven the efficacy and effectiveness of pressure support surfaces. Additional randomized controlled trials are needed to compare the different types of pressure support surfaces.

## Coding/Billing Information

**Note:** This list of codes may not be all-inclusive.

**Covered when medically necessary only when coverage is available for the specific item. Benefit exclusions and limitations may apply. Some of these items are specifically excluded under many health benefit plans and therefore generally are not covered:**

| HCPSC Codes | Description  |
|-------------|--|
| A4640       | Replacement pad for use with medically necessary alternating pressure pad owned by patient |
| E0181       | Pressure pad, alternating with pump, heavy duty  |
| E0182       | Pump for alternating pressure pad  |
| E0184       | Dry pressure mattress  |
| E0185       | Gel or gel-like pressure pad for mattress, standard mattress length and width              |
| E0186       | Air pressure mattress  |
| E0187       | Water pressure mattress  |
| E0193       | Powered air flotation bed (low air loss therapy).  |
| E0194       | Air fluidized bed  |
| E0196       | Gel pressure mattress  |
| E0197       | Air pressure pad for mattress, standard mattress length and width                          |
| E0198       | Water pressure pad for mattress, standard mattress length and width                        |
| E0199       | Dry pressure pad for mattress, standard mattress length and width                          |
| E0277       | Powered pressure reducing air mattress   |
| E0371       | Nonpowered advanced pressure reducing overlay for mattress, standard                       |

|       |  |
|-------|--|
|       | mattress, standard length and width                                  |
| E0372 | Powered air overlay for mattress, standard mattress length and width |
| E0373 | Nonpowered, advanced pressure reducing mattress                      |

| ICD-9-CM Diagnosis Codes | Description                            |
|--------------------------|--|
| 707.00-707.09            | Decubitus ulcer                        |
| 707.22                   | Pressure ulcer stage II                |
| 707.23                   | Pressure ulcer stage III               |
| 707.24                   | Pressure ulcer stage IV                |
| 787.60                   | Full incontinence of feces             |
| 788.30                   | Urinary incontinence, unspecified      |
| 788.34                   | Incontinence without sensory awareness |
| 788.36                   | Nocturnal enuresis                     |

**\*Current Procedural Terminology (CPT®) © 2010 American Medical Association: Chicago, IL.**

## References

1. Bergstrom N, Bennett MA, Carlson CE, et al. Pressure Ulcer Treatment. Clinical Practice Guideline. Quick Reference Guide for Clinicians, No. 15. Rockville, MD: U.S. Department of Health and Human Services, Public Health Service, Agency for Health Care Policy and Research. AHCPH Pub. No. 95-0653. Dec. 1994. Modified Dec 12, 2005. Accessed January 5, 2011. Available at URL address: <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat2.section.5320>
2. Centers for Medicare and Medicaid Services (CMS). National Coverage Decision (NCD) for Air-Fluidized Bed (280.8). Effective November 1, 2000. Accessed January 5, 2011. Available at URL address: [http://www.cms.hhs.gov/mcd/viewncd.asp?ncd\\_id=280.8&ncd\\_version=1&basket=ncd%3A280%2E8%3A1%3AAir%2DFluidized+Bed](http://www.cms.hhs.gov/mcd/viewncd.asp?ncd_id=280.8&ncd_version=1&basket=ncd%3A280%2E8%3A1%3AAir%2DFluidized+Bed)
3. CIGNA Government Services. LCD for Pressure Reducing Support Surfaces Group 1. L11563. Revised December 1, 2009. Accessed January 5, 2011. Available at URL address: [http://www.cms.hhs.gov/mcd/index\\_local\\_alpha.asp?from=alphalmrp&letter=P](http://www.cms.hhs.gov/mcd/index_local_alpha.asp?from=alphalmrp&letter=P)
4. CIGNA Government Services. LCD for Pressure Reducing Support Surfaces Group 2. L11564. Revised April 1, 2010. Accessed January 5, 2011. Available at URL address: [http://www.cms.hhs.gov/mcd/index\\_local\\_alpha.asp?from=alphalmrp&letter=P](http://www.cms.hhs.gov/mcd/index_local_alpha.asp?from=alphalmrp&letter=P)
5. CIGNA Government Services. LCD for Pressure Reducing Support Surfaces Group 3. L11565. Revised April 1, 2010. Accessed January 5, 2011. Available at URL address: [http://www.cms.hhs.gov/mcd/index\\_local\\_alpha.asp?from=alphalmrp&letter=P](http://www.cms.hhs.gov/mcd/index_local_alpha.asp?from=alphalmrp&letter=P)
6. Cimino V, Davis WJ. Pressure Sores: Prevention and Treatment. In: Irwin RS, Rippe JM, editors. Irwin and Rippe's Intensive Care Medicine. Philadelphia, PA: Lippincott, Williams & Wilkins; 2008. Ch. 159.
7. Clinitron® RITE HITE® AT-HOME® air fluidized therapy [user manual]. Hill-Rom. Accessed January 5, 2011. Available at URL address: [http://www.hill-rom.com/PDFs/manuals/UserManuals/u120\\_iet.pdf](http://www.hill-rom.com/PDFs/manuals/UserManuals/u120_iet.pdf)
8. Cullum N, McInnes E, Bell-Syer SEM, Legood R. Support surfaces for pressure ulcer prevention. The Cochrane Database of Systematic Reviews 2004, Issue 3. Art. No.: CD001735.pub2.DOI: 10.1002/14651858.CD001735.pub2.

9. Mackey D. Support surfaces: beds, mattresses, overlays-oh my! *Nurs Clin North Am*. 2005 Jun;40(2):251-65.
10. McInnes E, Bell-Syer SE, Dumville JC, Legood R, Cullum NA. Support surfaces for pressure ulcer prevention. *Cochrane Database Syst Rev*. 2008 Oct 8;(4):CD001735.
11. National Institute for Clinical Excellence (NICE). The use of pressure-relieving devices (beds, mattresses and overlays) for the prevention of pressure ulcers in primary and secondary care. London, UK: National Health Service, National Collaborating Centre for Nursing and Supportive Care; December 2003. Accessed January 5, 2011 Available at URL address: <http://www.nice.org.uk/Docref.asp?d=97912>
12. National Pressure Ulcer Advisory Panel (NPUAP). Pressure Ulcer Stages. Updated February 2007. Accessed January 5, 2011. Available at URL address: <http://www.npuap.org/pr2.htm>
13. Nixon J, Nelson EA, Cranny G, Iglesias CP, Hawkins K, Cullum NA, PRESSURE Trial Group. Pressure relieving support surfaces: a randomised evaluation. *Health Technol Assess*. 2006a Jul;10(22):iii-iv, ix-x, 1-163.
14. Nixon J, Cranny G, Iglesias C, Nelson EA, Hawkins K, Phillips A, et al. Randomised, controlled trial of alternating pressure mattresses compared with alternating pressure overlays for the prevention of pressure ulcers: PRESSURE (pressure relieving support surfaces) trial. *BMJ*. 2006b Jun 17;332(7555):1413. Epub 2006 Jun 1.
15. Ochs RF, Horn SD, van Rijswijk L, Pietsch C, Smout RJ. Comparison of air-fluidized therapy with other support surfaces used to treat pressure ulcers in nursing home residents. *Ostomy Wound Manage*. 2005 Feb;51(2):38-68.
16. Panel for the Prediction and Prevention of Pressure Ulcers in Adults. Pressure Ulcers in Adults: Prediction and Prevention. Clinical Practice Guideline, Number 3. AHCPR Publication No. 92-0047. Rockville, MD: Agency for Health Care Policy and Research, Public Health Service, U.S. Department of Health and Human Services. May 1992. Accessed January 5, 2011. Available at URL address: <http://www.ncbi.nlm.nih.gov/books/bv.fcgi?rid=hstat2.chapter.4409>
17. Paralyzed Veterans of America. Pressure ulcer prevention and treatment following spinal cord injury: a clinical practice guideline for health care professionals. Washington, DC: Paralyzed Veterans of America; 2000 Aug. Accessed January 5, 2011. Available at URL address: [http://www.guideline.gov/summary/summary.aspx?doc\\_id=2589](http://www.guideline.gov/summary/summary.aspx?doc_id=2589)
18. Reddy M, Gill SS, Rochon PA. Preventing pressure ulcers: a systematic review. *JAMA*. 2006 Aug 23;296(8):974-84.
19. Thomas DR. Pressure ulcers. In: Rakel RE, Bope ET, editors. *Conn's Current Therapy*. 1st ed. Philadelphia, PA: W.B. Saunders; 2010. Section 13.

---

## Policy History

---

| <u>Pre-Merger<br/>Organizations</u> | <u>Last Review<br/>Date</u> | <u>Policy<br/>Number</u> | <u>Title</u>               |
|-------------------------------------|-----------------------------|--------------------------|----------------------------|
| CIGNA HealthCare                    | 2/15/2007                   | 0042                     | Pressure Reducing Surfaces |

"CIGNA", "CIGNA HealthCare" and the "Tree of Life" logo are registered service marks of CIGNA Intellectual Property, Inc., licensed for use by CIGNA Corporation and its operating subsidiaries. All products and services are provided by such operating subsidiaries and not by CIGNA Corporation. Such operating subsidiaries include Connecticut General Life Insurance Company, CIGNA Health and Life Insurance Company, CIGNA Behavioral Health, Inc., CIGNA Health Management, Inc., and HMO or service company subsidiaries of CIGNA Health Corporation and CIGNA Dental Health, Inc. In Arizona, HMO plans are offered by CIGNA HealthCare of Arizona, Inc. In California, HMO plans are offered by CIGNA HealthCare of California, Inc. In Connecticut, HMO plans are offered by CIGNA HealthCare of Connecticut, Inc. In North Carolina, HMO plans are offered by CIGNA HealthCare of North Carolina, Inc. In Virginia, HMO plans are offered by CIGNA HealthCare Mid-Atlantic, Inc. All other medical plans in these states are insured or administered by Connecticut General Life Insurance Company or CIGNA Health and Life Insurance Company.