

# A New Generation of Cushioned Flooring

## Reduce Injuries with SmartCells®

SmartCells dual purpose cushioned flooring:

### **Fall Protection:**

A compliant cellular structure for absorbing energy from falls.



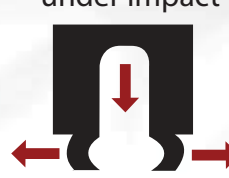
### **Fatigue Reduction:**

A stable, top surface for rolling, standing and walking.

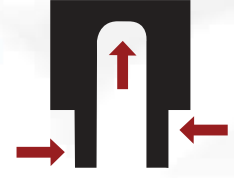
SmartCells  
at rest



SmartCells  
under impact



SmartCells  
rebounding



### **SmartCells Technology:**

The unique structure becomes softer as compressed without bottoming out.

SmartCells is a new generation of fall protection flooring and bedside mats that are **stable and firm** under normal activity, but under impact have the capacity to **absorb impact shock** and **reduce the risk of serious injury**.

### **SmartCells Cushioned Flooring:**

- Provides effective cushioning to reduce probability of serious injury
- Is appropriate for use with most floor coverings

#### **Great for use in:**

- Bathrooms
- Bedrooms
- Common Areas
- Wherever falls are likely



### **SmartCells Bedside Mats:**

- Provides bedside fall protection for non-ambulatory residents
- Available in a variety of sizes



- Low profile
- Stable and secure for caregivers and wheeled objects
- Leave in place

## Modular Options for SmartCells Bedside Fall Protection Mats

Protection



Flexibility



Selection

### Select the optimal configuration for your needs:

- Choose the fall-height protection desired -- 4' or 2'
- Determine likely fall area
  - How wide and long does the mat need to be?
- Identify work patterns of caregivers
  - How wide should the mat be for standing, walking, rolling, transferring?
- Choose desired color
  - Some advanced dementia patients think of black as a hole, and become fearful.



Brown    Black    Grey    Blue    Green

### SmartCells is available in the following colors:

## Photo Luminescent Markers



Additional safety is provided with optional photo luminescent markers.

- Make mats visible at night
- Glowing edge dots

*"We were able to reduce fractures by almost 45%, and less serious injuries requiring hospitalization or ER visits. The SmartCells fall-protection mats are definitely preventing serious injuries from falls when falling out of bed. Of the 22 out-of-bed falls, 12 involved residents with SmartCells fall protection mats in from of their bed, where we experienced zero fractures."*



Sigrid Howard NHA, Administrator

## SmartCells Advantages:

- Absorbs impact energy, protects from serious injury
- Becomes softer as compressed, resists bottoming out
- Low-profile surface allows resident to stand, walk or wheel over the mat without difficulty
- Reduces musculoskeletal stress and injury for staff who stand on the surface
- Wheelchair and lift accessible

## Bedside Mattress/Foam Pad Disadvantages

- Provide limited protection from fall injuries
- Become harder with impact, increasing risk of injury
- Need to be removed to access resident, exposing staff to musculoskeletal stress and possible injury
- Create trip hazards, obstacles for evacuation

Dear SATECH,

On behalf of all of the residents of the La Posada Community, let me first say Thank You and offer a congratulations on developing the finest injury prevention mat I have seen in over 15 years of Long Term Care.

The Smart Cell technology offered in your [fall protection] mat is the perfect application to preventing injury from falls in a long-term care setting. We currently use the product at the bedside of some our residents at risk for falling out of bed. Since 2005 we have used the product and on EVERY occasion, when a resident has fallen on the mat, there has been NO INJURY.

The mats work so well in the long-term care arena because of their low profile and design. The design allows a resident to stand, walk or wheel over the mat without difficulty. Being so thin and inconspicuous one would think it would offer little protection. This is where the SMART CELL technology takes over. Keeping the mat user friendly for ambulating, yet offering the best shock absorbing system around is what separates the SATECH product from all others.

I can honestly say after using various floor mattresses and other injury prevention devices, this product is the best I have ever seen.

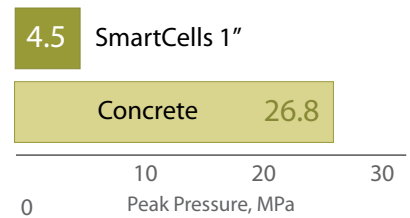
Steven W. Kolnacki, MS LNHA CALM  
Administrator

**SmartCells may reduce peak impact pressure on the hip by as much as 83% compared to a fall onto a concrete surface.\***

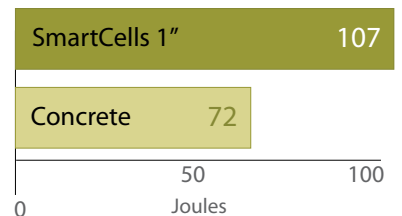
**From a 2' high fall height, SmartCells reduce the probability of even a mild head injury by a factor of 10.\*\***

**SATECH provides many anti-fatigue/safety products including flooring, mats and runners**

Hip Impact - Peak Pressure\*



Estimated Energy Absorption\*




\* Comparison of energy absorption by load spreading under anticipated loading conditions of a hip impact. Estimates based on a modified Harvard hip impact model, measured material properties of SmartCells 1" mats and the typical properties of concrete





\*\* Comparison of HIC (Head Injury Criteria) scores produced by a head-form missile from a 2' drop height in accordance with ASTM 1292 test.

## 4' Fall Protection



(1" thick)

Size includes 3" beveled edge (  )




| Description  | Size*      | Configuration of Segments   | Weight lbs. per Segments | Weight lbs. |
|--|------------|---|--------------------------|-------------|
| <b>Two Connectable Segments</b> with edging on three sides   | 39"x79"x1" |   | 33                       | 66          |
| <b>Three connectable segments</b> configure in smaller, lighter segments with edging on three sides  | 39"x61"x1" |   | 19<br>(16 center)        | 54          |
| <b>Two connectable segments</b> with edging on three sides   | 27"x79"x1" |   | 23                       | 46          |
| <b>Three connectable segments</b> configured in smaller, lighter segments with edging on three sides | 27"x61"x1" |  | 13<br>(11 center)        | 37          |

## 2' Fall Protection



(1/2" thick)

Size includes 1.5" beveled edge (  )

| Description  | Size*        | Configuration of Segments  | Weight lbs. per Segments | Weight lbs. |
|--|--------------|--|--------------------------|-------------|
| <b>One unit</b> , beveled edge on four sides                 | 36"x60"x1/2" |   | 30                       | 30          |
| <b>Two connectable segments</b> , beveled edge on four sides | 36"x60"x1/2" |  | 15                       | 30          |
| <b>Two connectable segments</b> beveled edge on four sides   | 24"x68"x1/2" |  | 11                       | 22          |

**Fall protection height is extrapolated from ASTM 1292 test results which indicate that a fall from 2' high (.5 inch thickness) or 4' high (1 in thickness) may significantly reduce injury.**