



Age in Place Safely

Falls May Be Inevitable, Injuries Don't Need to Be



Protect your Loved Ones with SmartCells
Fall Protection Flooring Solutions

Bedside Fall Mats | Custom Modular Mats | Wall-to-Wall Flooring

Why Fall Protection Matters

We know what you're going through and how tough it is. Falls are a serious issue and are the reason why we developed SmartCells Fall Protection Flooring.

25%

One in Four seniors aged 65+ fall every year

3x

After falling once, seniors are 2-3x more likely to fall again

1 in 5

One in Five falls cause a serious injury that can lead to death

300k

The amount of seniors who fracture a hip each year

1

Seniors feel more confident on SmartCells Flooring

SmartCells Fall Protection Flooring provides a stable surface that feels supportive when walking, but provides the perfect amount of cushion when falls occur. With SmartCells under their feet, seniors get a boost of confidence knowing that when they fall, they will be protected as best as they can be.

2

SmartCells reduce fall injury rates by 43%

SmartCells were involved in a blind clinical trial with seniors in a skilled nursing facility. The results of this study determined that SmartCells reduce fall injury rates by 43% without impairing balance or increasing risk of falling.

3

Caregivers feel less stress with SmartCells Flooring

We know how hard it can be to take care of your elderly loved ones. It's stressful for any caregiver to give the adequate care to seniors when worrying about falls. Much of that stress can be alleviated with a cushioned flooring solution to protect seniors and caregivers.

SmartCells Cushioning Technology

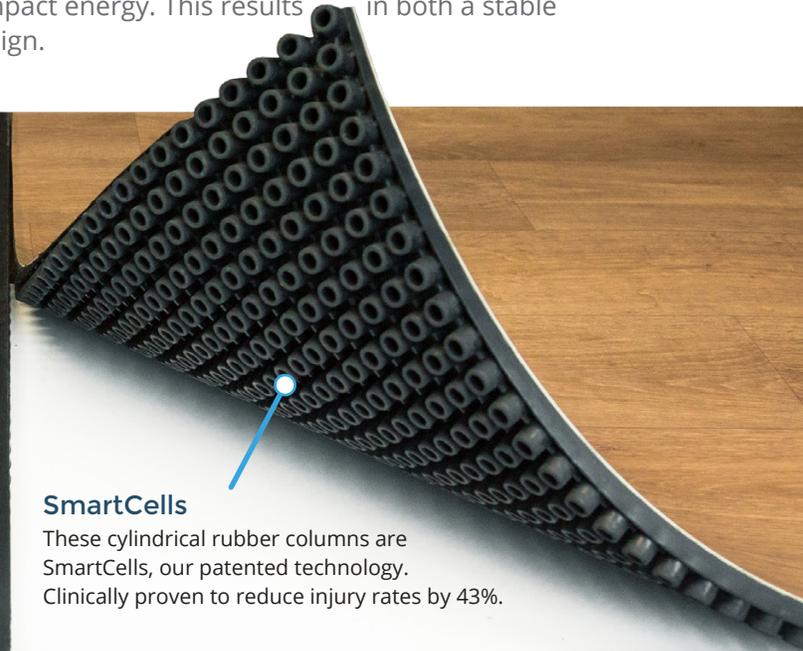
How SmartCells Work

SmartCells is an engineered rubber structure designed to provide a cushioning layer under normal floor coverings or as a stand-alone surface mat. It provides stable support for normal activities but when someone falls on the surface the rubber columns buckle to absorb impact energy. This results in both a stable surface to support balance and fall protection all in one design.

Designed to Reduce Fall Injuries

The purpose of SmartCells is to provide a simple way to reduce injuries when a fall occurs.

With SmartCells, there is nothing to remember to put on. Just put it down, forget it is there, and let it protect your loved one(s).



SmartCells

These cylindrical rubber columns are SmartCells, our patented technology. Clinically proven to reduce injury rates by 43%.

Stable & Supportive

Feels like a normal floor, will not impair balance or gait

Cushions upon Impact

Designed to absorb up to 90% of the peak impact force from a fall

Long Lasting

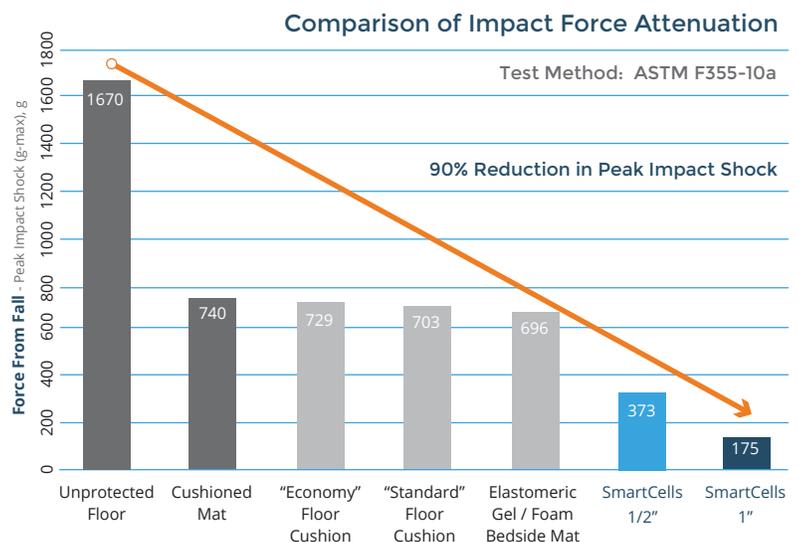
SmartCells come with an 8-year warranty or a warranty to match your floor covering

SmartCells is 5x more effective than traditional foam in absorbing the impact energy from a fall.

The graph at the right compares the cushion-ability of SmartCells to popular bedside fall mats and a concrete floor.

The large g-max rating for falling from 3' high onto an unprotected floor would likely lead to a fall injury.

From the same height, SmartCells can reduce the felt impact force by 90% and is nearly 5x more effective than a traditional foam mat.



SmartCells Fall Protection Products

Three ways to get SmartCells into your home



A

3' x 5' Bedside/Fall Mat
A portable fall solution



B

Custom Modular Matting
For targeted fall areas



C

Wall-to-Wall Flooring
For full coverage of a room

Diagram of where SmartCells products could be installed



30% These callouts indicate where falls are most likely to occur while at home

Testimonials

“

“I've always felt like one of the smartest things we did was use SmartCells for our remodel. I recommend it for those who have fallen and those who haven't fallen yet but want protection from potential falls. Nobody can be completely protected from a fall but on SmartCells you don't injure yourself.”

Pat

“

“My brother has fallen twice and the floor really works. He feels much more secure now because he knows that if he falls, he will be okay. Everybody also loves the way the floor feels underfoot. We praise the SmartCells floor to everybody we see!”

Marty

“

“My mom has had some falls since the installation of our SmartCells Fall Protection floor but has not sustained any injuries (She had previously broken her hip, tibia plateau and wrist in separate falls, prior to the SmartCells installation). This is an amazing product.”

Bill



“I love your product! Easy to install with very clear directions and exact measured tiles. My 87 year old mother has them put next to her shower and feels very safe with them. This is the perfect product for making showers safer.”

- Sharon

“I'd like to be able to do what I like to do when I want to. I gain this independence and security with the SmartCells Flooring. I had fallen three times and needed some sort of fall protection flooring so we decided to install SmartCells. This flooring helps me feel safe and more confident and I have found it very comfortable.”

- Evelyn



Research Studies

A

“Compliant flooring reduces impact forces”

“This study demonstrates that during 'high severity' simulated impacts, novel compliant floors can substantially reduce the forces and accelerations applied to a head-form compared to common floors including carpet and resilient rubber... these findings support the promise of novel compliant floors as a biomechanically effective strategy for reducing fall injuries including traumatic brain injuries and skull fractures.”⁶

B

Specific fall-protection flooring [SmartCells] will not impair balance⁶

“Compliant floors can attenuate femoral impact force by up to 50% while having only limited influence on balance in older women.”

“This study illustrates that the SmartCells novel compliant floor has minimal influence on balance and balance control responses...caused no impairments in ability to recover balance ...ranked as high for balance confidence and practicality as rigid floors... did not affect risk for falls.”

“While all floors affected postural sway during quiet stance...SmartCells is statistically indistinguishable from a standard rigid floor.”

C

Dual-stiffness flooring [SmartCells] is effective in preventing injuries from falls

“There was a tendency for residents falling on DSF to have less bruising and abrasions, while having more redness and cuts. There were 2 fractures on regular flooring (2.4% fracture rate) and none on the DSF flooring (0% fracture rate)...a 0% rate found on the DSF floor is a clinically significant improvement.”^{2, 5}

“...the rate of injury on the SmartCells Cushioned floor was 43% smaller than the rate on the control floor (no cushioning).” Independent Review Findings on “FLIP” study by Brian Hartman, PhD, ASA¹

List of Research Studies

1. Dawn C. Mackey, Chantelle C. Lachance, Peiwei T. Wang, Fabio Feldman, Andrew C. Laing, Pet M. Leung , X. Joan Hu, Stephen N. Robinovitch. The Flooring for Injury Prevention (FLIP) Study of compliant flooring for the prevention of fall-related injuries in long-term care: A randomized trial. PLOS Medicine, June 2019.
2. Knoefel F, Patrick L, Taylor J, Goubran R. Dual-stiffness flooring: can it reduce fracture rates associated with falls? J Am Med Dir Assoc. 2013; 14:303–5. <https://doi.org/10.1016/j.jamda.2012.12.077> PMID: 23375479
3. Hanger HC. Low-Impact Flooring: Does It Reduce Fall-Related Injuries? J Am Med Dir Assoc. 2017; 18:588–91. <https://doi.org/10.1016/j.jamda.2017.01.012> PMID: 28279604
4. Wright AD, Laing AC. The influence of headform orientation and flooring systems on impact dynamics during simulated fall-related head impacts. Med Eng Phys. 2012; 34:1071–8. <https://doi.org/10.1016/j.medengphy.2011.11.012> PMID: 22172523
5. Lachance CC, Jurkowski MP, Dymarz AC, Robinovitch SN, Feldman F, Laing AC, et al. Compliant flooring to prevent fall-related injuries in older adults: A scoping review of biomechanical efficacy, clinical effectiveness, cost-effectiveness, and workplace safety. PLOS ONE. 2017; 12:e0171652. <https://doi.org/10.1371/journal.pone.0171652> PMID: 28166265
6. Glinka MN, Karakolis T, Callaghan JP, Laing AC. Characterization of the protective capacity of flooring systems using force-deflection profiling. Med Eng Phys. 2013; 35:108–15. <https://doi.org/10.1016/j.medengphy.2012.04.006> PMID: 22647837=

How to Order and Implement

Bedside Fall Mats

Our 3' x 5' Bedside Fall Mats come in various colors and can be purchased on our website.



Order Online

Visit www.smartcellusa.com to purchase your mat today!

Shipped To Your Location

Mats purchased online will be shipped to the location you desire.

8 Year Warranty

All SmartCells products come with an industry leading 8 year warranty.



Modular Matting

Designed to cover the most critical areas of your room

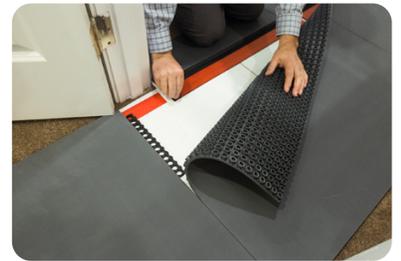


Determine Dimensions

Determine the type of coverage you're looking for and send us the dimensions.

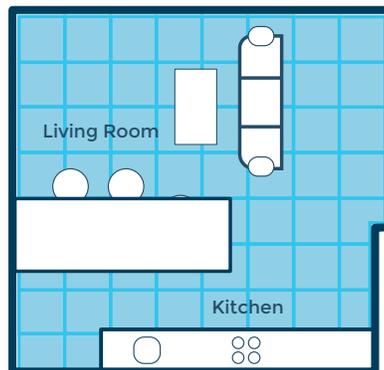
Connectable Mat Sections Are Shipped To You

We pre-assemble sections and ship them to your location for you or a handyman to assemble.



Wall-to-Wall Flooring

100% floor coverage in your most important rooms



Determine Your Layout

Send dimensions of the room and identify where the entrances and exits are to the room.

Installation

SmartCells Fall Protection flooring can be retrofitted to any existing room or installed in new construction.



Choose a Floor Covering Top Layer

Choose between carpet tile or sheet vinyl to apply over the SmartCells pads. Do it yourselves, handymen, or contractors are provided clear installation instructions on how to install.