

# lifespan perspective

A different way of looking at design

Falls Prevention Awareness Day 2010

## 5 things you can do to help prevent falls in and around your building

When we learned that September 23, 2010 has been declared Falls Prevention Awareness Day, we decided to chime in with this special edition newsletter. The numbers are staggering: one out of every three adults over 65 in the U.S. falls each year. According to the CDC, more than 18,000 older Americans died as a result of injuries from falls in 2007, and 2.1 million fall victims were treated in emergency rooms in 2008. No doubt a good deal will be written this month about preventing falls in the home, where 60% of the most serious falls occur. We'd like to talk about the 40% that occur away from home—in businesses and office buildings, public facilities and private clubs, on city streets, and in our neighborhoods.

Although many falls can be traced to physiological or cognitive issues, the physical environment often plays

a significant role. Falls happen when an individual trips, slips, stumbles, loses their balance, or inaccurately perceives steps, curbs, or changes in level. Falls research has led to the development of innovative falls-prevention programs focused on individual training, and a good deal has been written about home safety—but these efforts alone aren't enough. To effectively combat falls outside of the home, we must all take responsibility for removing hazards and making enhancements that may reduce the likelihood of people falling in the settings we control.

Admittedly, some issues are beyond our control. Even the most thoughtfully selected walking surfaces may prove slippery for some people and grippy for others, depending on their footwear and gait. Nonetheless, there are a number of things that you can do to create a safer walking environment for people of diverse ages and abilities.

### Remove tripping hazards

Take a critical look at the floors, steps, walkways, and parking lots in and around your facility, and consider the ease and safety with which these surfaces can be navigated by people of diverse ages and abilities. Think about the things that trip *you* up, or throw you off balance as you make your way through everyday life: uneven surfaces, holes, raised joints, obstructions in the pathway, area rugs, etc. Now imagine that you can't see clearly, or have difficulty lifting your feet or maintaining balance—those same annoy-

- ✓ Remove tripping hazards
- ✓ Adjust the lighting
- ✓ Keep it dry
- ✓ Lend a hand (rail)
- ✓ Amp up the contrast

### Accidents waiting to happen



Sunken & uneven pavers



Uneven joints



Area rugs

ances become minefields. Too often it is assumed that people will notice and sidestep these dangers, but can you afford to count on that?



Lifespan Design Studio offers architectural studies, assessments, planning, and design for new construction and renovations.

10678 Bettyray Drive  
Loveland, Ohio 45140

513.239.8259  
info@lifespandesignstudio.com

www.lifespandesignstudio.com

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## Adjust the lighting

It's important to be able to see where we're going and what we're walking on. People may be more likely to fall when they are blinded by glare, disoriented by shadows, or unable to discern the hazards listed above because of poor illumination. Bearing in mind that all people require increased illumination to see accurately as they age, lighting should be bright (but not glaring) and uniform in all spaces, unless otherwise indicated. Aging eyes may take significantly longer to adjust from one lighting level to another, thus the lighting environment should accommodate a smooth transition from outdoors to indoors, and from lighter to darker spaces within the facility. In deliberately darkened areas, consider installing floor-level illumination to define walkways, especially at steps, slopes, flooring transitions, obstructions, etc., where falls are most likely to occur. For assistance with any of these issues, consult a qualified lighting consultant. Be sure to discuss outdoor areas that require night lighting as well. In many cases, parking lot and other outdoor areas are dangerously under-illuminated.

## Keep it dry

Are you doing all you could to combat wet floors at your entrances? Walk-off mat systems that are recessed so that the mat surface is flush with the flooring surface are nice because there aren't any raised edges to trip on. If this isn't an option in your building, choose a mat with a very low profile, beveled rubber edge, and rubber backing to anchor it firmly in place. Make sure the mat is large and absorbent enough to serve the intended purpose, and consider a color that will contrast with the surrounding flooring, so that people are forewarned of a change in surface, and prepared to adjust their gait.

We are constantly surprised by the amount of unnecessary water found

on floors in public restrooms. Hand dryers or paper towel dispensers should be immediately adjacent to sinks, rather than forcing people to drip water from wet hands across the room. Blowers or dispensers mounted in the backsplash, sidesplash, or counter are especially effective.



**Can you find the hand dryer in this restroom? Look in the mirror—it's away from the sinks, on an end wall, causing people to drip water across the floor.**

As you take a look at these issues, also give some thought to water on the floor at water fountains, beverage dispensers, and other sources, and consider adding firm, trip-resistant absorptive mats like those used at entrances if necessary.

## Lend a hand (rail)

In spots where some people may be particularly at risk (on steps, irregular or potentially slippery surfaces, slopes, dimly or unevenly lit spaces, etc.) a secure hand-hold may help to prevent a fall. Hand rails, grab bars, sturdy furniture, etc. offer people the opportunity to steady themselves and pause, if necessary, to regain their balance or rest for a moment. Don't forget that **even a single step up or down can be a significant risk/challenge for some people**, and thus calls for a secure handhold.

## Amp up the contrast

No matter how well you adjust the lighting, some individuals will struggle to perceive critical edges and transitions effectively without help, in the form of color contrast. Consider the stairwell pictured below, decked out in pristine white on white on white. Not only is it difficult to discern the edges of the steps, it's altogether possible that some individuals would have difficulty seeing the handrails—even the door—in the monotone space. Note the hot spots and shadows created by uneven lighting as well. The good news is that the "fix" for this problem is reasonably easy—paint the handrails, doors, and trim in a contrasting color; add color to define stair edges; smooth out the lighting; and a potentially dangerous setting is vastly improved.



Color contrast isn't only important in stairwells. Imagine how difficult it may be for a person with a visual impairment to accurately discern the edge of a seat if its color blends with the flooring below—or to see obstacles in the pathway that blend with the background. To read more about the effective application of color, see the most recent past issue of **Lifespan Perspective** in the Resources section of our website: [lifespandesignstudio.com](http://lifespandesignstudio.com).

We've added a NEWS section to our website—check it out at [www.lifespandesignstudio.com](http://www.lifespandesignstudio.com).