SLIP/TRIP/FALLS: HOMES & COMMUNITIES AWARENESS & PREVENTION

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SLIP/FALL DATA – THE AGE EFFECT

Average Slip/Fall Claim Cost by Age

- 65 +
- 55 - 64
- 45 - 54
- 35 - 44
- 25 - 34
- 20 - 24
- 16 - 19

$ Total Incurred

EMC Companywide work comp data
WHAT CAUSES SLIPS, TRIPS AND FALLS

1. Uneven walking surfaces
2. Obstacles on walkways
3. Wet/Slippery surfaces
4. Footwear issues
5. Stairs and Steps
6. Distracted walking
1. Uneven walking surfaces

- ¼” change in elevation can cause a trip
- Many cities do not inspect sidewalks
- Those that do have \( \frac{3}{4} \) to 1 inch criteria
UNEVEN WALKING SURFACES

½" change in elevation, stumbled 15 feet, broke arm
UNEVEN WALKING SURFACES

"step on a crack, break your mothers back"
2 broken wrists in this case
UNEVEN WALKING SURFACES

Variable change in elevation hard to detect
UNEVEN WALKING SURFACES

Flared edges often not marked
Always walk in center
Curb Ramps

Proper flared edge identification
UNEVEN WALKING SURFACES

Built-up curb ramps not recommended
Sloped sides not visually contrasting
Need to walk in center
UNEVEN WALKING SURFACES

11” step down … more than 7” increases risk

Avoid curbs if possible
Would you veer left to avoid the 10" curb?
UNEVEN WALKING SURFACES

Beware of trees next to sidewalks
2. Obstacles on walkways

- Low-lying objects
- Some may lack sense of where foot is
- Blind corners compound the risk
OBSTACLES ON WALKWAYS

Poor product placement – visual distraction

Look down and to side when leaving a counter
OBSTACLES ON WALKWAYS

 Raised platform at blind corner – no contrast
*Take wide turns at corners, look for hazards*
OBSTACLES ON WALKWAYS

Metal edging in area where shortcuts are taken

Stay on walkways at all times
OBSTACLES ON WALKWAYS

Don’t ignore this!
Small round objects can cause violent falls
OBSTACLES AND UNEVEN WALKWAYS

Prevention:

1. Look ahead for hazards; 10-15 feet, even if in a familiar area
2. Stay on walkway, away from edges
3. Avoid obstacles and curbs if possible
4. Look down when turning a corner or moving from a counter
5. Make wide turns at corners
3. Wet/Slippery Surfaces
Wet/Slippery Surfaces

Standing water: Algae/slime is very slippery
Wet/Slippery Surfaces

Slip resistant paint not used
Should add mineral aggregate

*Use caution on wet painted areas*
Floors: “Bright ain’t right”

Beware of high gloss – hard to see spills, “hypnotic” effect

Dull finish – easier to see water

Walk cautiously in areas where spills/puddles are expected
<table>
<thead>
<tr>
<th>Product</th>
<th>Single Application</th>
<th>After One Month</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pine Solé Cleaner</td>
<td>+1%</td>
<td>0%</td>
</tr>
<tr>
<td>Pledge® Grab It™ Wet Floor Wipes</td>
<td>+1%</td>
<td>0%</td>
</tr>
<tr>
<td>Pledge® Orange Wood Floor Cleaner</td>
<td>+1%</td>
<td>-11%</td>
</tr>
<tr>
<td>Spic and Span®</td>
<td>-12%</td>
<td>-35%</td>
</tr>
<tr>
<td>Swiffer Wet™ Disposable Cloths</td>
<td>-25%</td>
<td>-20%</td>
</tr>
<tr>
<td>Xtra-Pine®</td>
<td>-5%</td>
<td>-20%</td>
</tr>
</tbody>
</table>

Test results at: www.nfsi.org
Wet/Slippery Surfaces

Started out 0.64 SCOF (high traction)
After cleaning regularly with a Swiffer: < 0.30 (low traction)
WET/SLIPPERY SURFACES - TREATMENTS

Products are available to treat any hard surface

www.noskidding.com
www.slipdoctors.com
www.tractionplus.com
Wet/Slippery Surfaces
No Skidding: One Time Floor Treatment

Wet SCOF

untreated vs. treated
Smooth concrete can be very slippery
Grab Bars

Mount to studs or use special mounting hardware

Don’t use towel bars!!

Textured grab bar cover

Suction models - balance assistance only!
WET/SLIPPERY SURFACES: WEATHER FACTORS

Slips/Falls by Month - Severity

01 02 03 04 05 06 07 08 09 10 11 12
Black Ice: 44 degrees
Wet/Slippery Surfaces

Prevention:

1. Look ahead for spills, puddles, and ice
2. Slow down/shorten stride 50% or more for puddles/wet areas – treat as if icy
3. Wide turns at corners
4. Wet weather - assume puddles exist beyond entrance mats
4. **Footwear**

- Footwear issues cause 25% of slip incidents
- Study: 65% of population buy improperly fitted shoes
- Slip resistant footwear is available
WALKING DYNAMICS

85% of population use heel strike method

Heel Strike Phase

“Hydroplaning” possible even if high traction flooring

1. Cannot recover from 10 cm foot slide
2. 1 to 2 cm slide can cause falls
3. Loose-fitting footwear compounds risk

Slow down and avoid wet areas
FOOTWEAR

Heels and soles should be inspected monthly
PREVENTION

✓ Slip resistant on wet and/or oily floors; softer rubber
✓ Flat heel = maximum contact area
✓ Honeycomb pattern: many leading edges, less hydroplaning
SLIP RESISTANT SHOES: HEALTHCARE

www.shoesforcrews.com
FOOTWEAR

Prevention:

1. Buy shoes that fit snugly and avoid raised heels
2. Use a long-handled shoe horn if needed
3. Inspect soles and heels frequently
4. Buy footwear appropriate for expected walkway conditions
5. Use a spare set of shoes indoors - Avoid slippers and bare feet
Foot Issues

✓ Callused, dry skin reduces traction
✓ Etch or treat tubs, showers and bathroom floors

Standards currently being developed for wet barefoot conditions
SHOWER SHOES

Flip flops are not recommended!

These are not slip-resistant soles (soft foam)
5. STAIRS AND STEPS

Historic buildings (Courthouse, etc) may have hazards
Uneven riser heights, poor drainage
Change in elevation; not seen from soda machine
Illustrates need to look down/behind when backing or turning
HANDBRAILS

Public Library: Handrails difficult to grip 10” perimeter, should be 6.25” max.
PREVENTION

Point hips toward railing

Keep hands free for gripping
PREVENTION

Side step technique: knee/hip issues or shallow treads
More Prevention Tips:

1. Remove reading glasses before using stairs
2. New glasses or contacts? 2+ weeks to adjust
3. Don’t access a dark stairway – turn on lights
   Place motion-activated nightlight near steps
4. Use both handrails (if available)
6. Distracted Walking

Don’t text and drive while walking
Handrails on both sides
3 coats of gloss urethane improved grip
Motion-activated LED nightlights
1. Reduce step height. Was 8”, now 5” (cost $10)
2. ½” trim material added under threshold lip for stability

• Scraper mat
• Epoxy coating on floor, was smooth concrete
• Step stool kept handy
Large tote bag keeps one hand free for handrail
Can be used as a laundry basket
Route power cords to prevent tripping
Outdoor scraper mats help keep moisture out
Eliminate throw rugs
Rugs/mats should have slip resistant backing, low height
PREVENTION - HOMES

Add a graspable handrail onto existing 2x6 handrail
PREVENTION - HOMES

Treat slippery floors
Wet SCOF increased from .25 to .67 (168% increase)