Patient Lifting Stats and Facts

DID YOU KNOW?

According to the CDC's NIOSH, the construction industry comprises approximately 8% of the U.S. workforce, yet it accounts for 44% of job-related fatalities. Consider the statistics:

- Electrical hazards cause more than 300 deaths and 4,000 injuries each year among the U.S. workforce.
- Electrocution is sixth among causes of workplace deaths in America.
- Construction trades, and installation/maintenance/repair professionals are the top two groups suffering the most fatal electrocution work-related accidents, from 2003-2007.

Electrocution accidents involving heavy equipment

The construction industry represents 52% of all occupational electrocutions, according to the recent CDC study referenced above. Below are some statistics on the heavy equipment in the trades and related electrocution accidents:

- Heavy equipment events accounted for 50% of those overhead power contacts, with cranes comprising 56.5%, drilling rigs 7.7%, dump trucks 6.7%, bucket trucks 6.7% and backhoes 4.9%.
- Carried items comprised 20.5% of overhead line contacts, ladders 12.9%, scaffolding 2.2%, and direct human contact another 10.2%.
- More than than 90% of power line contact accidents involved overhead distribution conductors.
- Drop-down services from power poles to houses, and high power transmission lines connecting generating stations to substations, only resulted in 7% of workplace power line accidents.
- Labor trades with considerable risk, in addition to heavy equipment operators, were roofing/siding/sheet metal

contractors (9.3%), tree trim contractors (8.5%), water/sewer/pipeline personnel and communication contractors (7.9%), and painting contractors (7.3%).

Just how many people are injured or killed in electrocution accidents?

It's estimated that 62 agricultural workers/yr. die from electrocution in the U.S., with overhead power lines being the most common source.

And each year, many children and adults are electrocuted or seriously injured in this country due to accidental contact with floating phases, downed power lines or objects such as green wood or fences in contact with downed wires.

The vast majority of these tragic events are preventable, if utility companies use the best available preventive maintenance, inspection, and repair practices that are required by law. They must also attend to hazards resulting from aging infrastructure and components, maintain proper tree trim scheduling cycles and promptly respond to storm damage and direct and indirect knowledge of floating and downed wires.

According to **Occupational Safety and Health Administration** statistics, worker injuries from slips, trips, and falls are one of the agency's biggest concerns, especially in hospitals. Injury and illness rates in healthcare, at 5.2 cases for every 100 workers, continue to be above the national average, which is 3.5 cases per 100.

In 2011, U.S. hospitals recorded 253,700 work-related injuries and illnesses, or 6.8 injuries and illnesses for every 100 full-time employees. This is almost twice the rate for private industry as a whole.

Despite this, says OSHA, hospitals still are not employing enough assistive devices to help move patients, and that's a major reason why healthcare workers have one of the highest rates of occupational musculoskeletal injuries in the U.S. A recent study

found that such devices can help cut down on these injuries and improve patient care at the same time.

The National Institute for Occupational Safety and Health reports that there are 75 lifting-related injuries for every 10,000 full-time hospital workers, and 107 injuries for every 10,000 workers at nursing homes and residential facilities. Hospital rates are nearly twice the national average for all industries, and nursing home rates are nearly three times as high.

The problem has gotten so bad that OSHA was forced to create an entire website devoted to lifting injuries in hospitals and to solutions that facilities can employ, including training tips and advice. However, OSHA still does not have any published mandate or standards related to reducing patient-handling injuries, just a recommendation that hospitals take steps to reduce them.

AGING PATIENTS NEED ASSISTANCE

Now look at this issue from the patient's perspective. U.S. residents are getting older, and with that their mobility will become compromised. The number of people older than 65 in the United States is expected to grow significantly in the next 10 years. Consider the following:

- One out of every eight U.S. residents is age 65 or older. One in four will be in that age group by 2030.
- S. residents over the age of 85 are the fastest-growing segment of the population. Projected figures show them increasing from 3.3 million to 18.9 million—one in 20 people—by 2050.
- People are living longer. The average life span today is 75 years compared to 47 years in 1900 and is projected to rise to 85 years by 2050.

According to a May 2016 **study** by **Guy Fragala, PhD, PE, CSP, CSPHP,** senior advisor for ergonomics at the **Patient Safety Center of Inquiry** in Tampa, Florida, 36.5% of U.S. adults are obese, and one out of five U.S. adults have a disability, which means they will likely wind up on a physician's exam table at some point in

their lives. So will we all, but for individuals with mobility challenges, these exam tables can be major contributors to the injury statistics we've just discussed. (Fragala's study was sponsored by Midmark Corporation, an Ohio-based provider of medical, dental, and veterinary equipment and technologies, including exam tables and chairs.)

LIFT EQUIPMENT

According to some reports, hospitals are trying to do their best by utilizing new technologies and installing patient lifts. However, many nurses and caregivers still prefer to lift and move patients themselves. The problem, of course, is that if they don't lift properly, or if the patient shifts during the process, it could cause the caregiver or the patient to be injured.

There is some controversy around when lift devices should be deployed. Some research says nurses and other caregivers should not lift more than 35 pounds without an assistive device. The **American Nurses Association** has advocated for hospitals to deploy equipment and adopt protocols so that no staffer ever moves a patient without device assistance. But most caregivers balk at these recommendations, noting that they regularly move children and adults of average weight without help.

Some hospitals in healthcare systems such as **Kaiser Permanente** and the **Veterans Health Administration** have begun to install overhead lifts in their facilities that consist of a motorized hoist that can lift a patient into the air while the patient is secured in a sling. An overhead rail system allows nurses to move patients around the room or between rooms.

Some models designed for obese patients have two motors and can lift as much as 1,000 pounds. They can be pricey, though. Permanent overhead lifts cost an average of $16,000 per room to install. In contrast, mobile devices cost an average of $6,000. A few mobile devices can service an entire hospital if workers take the time to find and use them, according to statistics from the **ECRI Institute.**

OSHA says that these devices are cost-effective and that the benefits far outweigh the costs, adding that the initial capital investment in policies and equipment can be recovered within two to five years. Consider the following benefits OSHA says can be enjoyed by facilities that use lift–assist equipment:

- Reduced injuries
- Decreases in lost time and workers' compensation claims
- Increased productivity
- Higher quality of work life and worker satisfaction
- Increased staff retention
- Better patient care and satisfaction

Some hospitals have success stories with this equipment. For instance, **St. Joseph's/Candler Health System** in Savannah, Georgia, installed ceiling lifts in 38 patient rooms in the critical care department, the 330-bed St. Joseph's Hospital and 384-bed Candler Hospital, where a troubling 78 patient-handling injuries per year occurred. St. Joseph's is the state's oldest continuously operating healthcare facility; Candler is the second oldest in the nation.

In 2011, the hospital installed the ceiling lifts along with a staff training program; within a year, with the program only partially in place, the number of annual injuries dropped to 37. That number has been maintained since.

Overhead lifts aren't the only devices that can help prevent patient and caregiver injury. Fragala says that patients can benefit from adjustable equipment such as height-adjustable examination chairs and tables. His study found that with adjustable chairs, the level of exertion required by a patient needing a minimal assist was reduced by 72%, the level of difficulty getting into the chair was reduced by 64%, and the feeling of safety improved by 42%.

"These reported results indicate that when a height-adjustable examination chair is provided to assist a patient who requires even a little bit of help to mount the chair, the process of getting up onto the examination chair is made much easier and

requires less exertion," he says.

That's good, Fragala notes, because if a patient can't get onto an exam table or chair, the physician may be unable to examine the patient properly. That can have cascading effects—the patient might be misdiagnosed because the physician can't collect sufficient information, or the patient might miss the benefit of early detection of a serious condition.