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Dockless Electric Scooters - Whitepaper



What You Need to Know if Your Workers are Using Them on the Job

Imagine this scenario:

Your employee leaves the office and heads to a business meeting in downtown Los Angeles. The client is located about a mile from the office so the eager associate grabs a dockless electric scooter for the short commute. After checking her smart-phone app to locate the nearest scooter, she unlocks it and jumps on for the quick ride. Half way to the client's office she approaches a busy intersection. She has the green light and proceeds, only to notice an oncoming car beginning to make a left-hand turn in front of her. As she attempts to take evasive action, the scooter hits a crack in the roadway, causing her to lose control. She is thrown through the air landing face first on the concrete curb, while the scooter careens into a pedestrian waiting on the corner. The pedestrian is bleeding and bruised from the impact and your worker is unconscious.

The seemingly over-night presence and use of micro-mobility devices around the country has created an increase in exposure to both workers' compensation as well as general liability claims. The following paper will discuss the issue in more depth and provide guidelines to help your company reduce and control these exposures to the extent possible.

Dockless Electric Scooters: How Did We Get Here?

Several factors have driven the proliferation of micro-mobility devices. The concept itself relates to both a "first mile" and "last mile" mode of transport, filling the gap from traditional and mass transit to final destination. The variety of devices that fit this category is wide, constituting scooters, skateboards, bicycles, unicycles, hoverboards, etc. They may be human-powered or motorized, but they all share the common characteristics of transporting people for relatively short distances at relatively slow speeds, primarily in congested urban areas or city centers. Collectively, these devices are referred to as Personal Transportation Devices (PTDs) by the San Jose State University research team in their May 2019 [report](#), *How and Where Should I Ride This Thing? "Rules of the Road" For Personal Transportation Devices*¹ commissioned by the Mineta Transportation Institute.

The spread of electric scooters has been fast and broad. Since Bird first introduced e-scooters in Santa Monica, CA in September 2017, no less than a dozen companies have distributed scooters in cities across the country in an effort to capture a piece of the quickly expanding market. With names like Lime, Spin, Skip, Scoot, Jump, and Bolt, scooters are becoming ubiquitous in metropolitan areas across the U.S. and across the globe. According to the [National Association of City Transportation Officials](#)², the number of shared micromobility trips in the U.S. in 2018 more than doubled from 2017 to 84 million. By definition, this encompasses all shared-use fleets of small, fully or partially human-powered vehicles including bikes, e-bikes, and e-scooters. Further, in 2018, 38.5 million scooter share trips accounted for the largest share of the 84 million trips. By the end of 2018, over 85,000 e-scooters were available for public use in nearly 100 U.S. cities. E-scooters have been replacing bike-sharing options and companies such as Spin and Lime, originally coming to market as bike-share companies have retooled and are putting significant capital into expanding e-scooter offerings. Hundreds of millions of investor dollars have poured into e-scooter companies and start-ups have been acquired by those looking for a seat at the trending dockless e-scooter table. Ford Motor Company acquired Spin in November 2018 for close to \$100 million, and Uber and Lyft are also players on the e-scooter scene.

The e-scooter phenomenon has created both supporters and detractors. Supporters tout accessibility of the devices, low cost of use and operation (most scooters can be unlocked for \$1 and cost \$0.15 per minute of operation), improved city transportation options particularly for those with less access to traditional modes of transportation, reduced demand for vehicle parking spaces, and reduced greenhouse gas emissions and traffic congestion when people use PTDs in lieu of automobiles. Detractors point to lack of regulation resulting in scooters parked in walking paths and wheel-chair accessibility areas, irresponsible riders creating hazards during operation, the clutter and poor aesthetics from too many scooters carelessly discarded wherever a rider completes their use, and most significantly, concerns about safety to both riders and pedestrians.

Safety

The exponential growth of e-scooters has made it difficult to accurately track and identify e-scooter injuries and incidents. No national data on e-scooter related crashes currently exists, however several studies have been completed and all of them generally point to the high severity of scooter related crashes.

The largest and most comprehensive review of incidents involving e-scooters was published by [Consumer Reports](#)³ in February 2019. The study tabulated injuries from 110 hospitals across 47 U.S. cities and found that at least 1,500 people had been injured using e-scooters since late 2017. Injury types include: concussions, nasal fractures, forearm fractures, blunt head trauma, brain injuries, cuts and bruises, musculoskeletal injuries, and major head injuries.

E-Scooter Fatalities:

- **TWELVE since fall 2017**
- **ELEVEN of the TWELVE have resulted when riders were struck by motor vehicles**
- **A 5-year old Tulsa, OK boy riding with his mother fell off and was hit by a vehicle**
- **FOUR fatalities have occurred in Atlanta, GA over a four month period from May-August, 2019**

Supporting the nature of severity of these incidents, a UCLA study⁴ found that one in three people involved in electric scooter accidents require emergency room treatment for their injuries. The UCLA study was completed in January 2019 and was limited to information collected from two southern California hospitals. A total of 249 people were treated for injuries, including: head injuries (40%), fractures (32%), and cuts, sprains, or bruises without fractures (28%).

Are Scooters Really Any More Dangerous Than Other Mode of Transportation?

There is no doubt that medical professionals, emergency room physicians, and others in the health care and emergency response fields have seen a sharp increase in the number of e-scooter related injuries. Certainly, the rapid increase in availability and adoption by users has fueled these numbers. With Lime reporting it had reached 11.5 million rides and Bird 10 million rides after one year of use, it may be reasonable to argue that the accident rate of scooters is no worse than bicycles or even automobiles.

While specific injury and accident **rates** for electric scooters are not known, a [study](#) published in January, 2019 in JAMA Network Open entitled, *Injuries Associated With Standing Electric Scooter Use*⁵ found that during the study period from September 1, 2017 to August 31, 2018, 249 patients presented at emergency departments with injuries associated with standing electric scooter use. This compares to 195 bicyclist injuries and 181 pedestrian injuries during the same time period at the same two emergency departments.

The most significant difference is the severity of injuries occurring from the scooters, principally due to the lack of helmet use. While all of the e-scooter companies encourage helmet use, the data suggest that helmet usage is nearly non-existent by typical e-scooter riders. Unlike cyclists, many of whom utilize bikes for commuting and therefore plan their rides (including utilizing a helmet), the majority of scooter users make spontaneous judgements when deciding to use a scooter, making it unlikely that they will have a helmet at their disposal when they unlock and begin riding. A similar behavior was noted in a study in December, 2018 on [Seattle's bikeshare program](#)⁶, which found that while over 90% of cyclists wore helmets when riding their personal bikes, only 20% of bike share riders did the same.

Concerns

Helmet Availability and Usage

Because e-scooter riders rarely pre-plan their trips and typically make the decision to ride the scooter on the spur of the moment, helmets are rarely available and therefore rarely used. Findings from the JAMA Network Open study found helmet usage to be between 4% and 6%. More disconcertingly, only one of the 190 scooter riders in the Austin Public Health [Dockless Electric Scooter-Related Injuries Study](#)⁷ was wearing a helmet.

Scooter Condition/Maintenance

Nineteen percent of the scooter riders in the same study believed their scooter malfunctioned or did not operate as intended. Although the scooters are picked up nightly by “chargers” or “juicers” for battery recharging, repair, and redistribution, the condition and maintenance of scooters has been called into question.

Lime removed scooters manufactured by Okai across the globe in November 2018 after finding that scooter model could catastrophically fail when subjected to repeated abuse. Social media posts have often shown Lime scooters broken apart where the baseboard and stem meet. Lime also pulled scooters from the streets in the early summer of 2018 after discovering a small number of them may have been carrying batteries with potential to catch fire.

Riding Protocols – Confusion and Inconsistency

The Mineta Transportation Institute [study](#) found that “the review of existing regulations in states, cities and university campuses revealed that PTD users operate in a murky regulatory environment, with rules often poorly defined, contradictory, or altogether absent.” Further, regulations for riding (sidewalks, streets, both, neither) vary widely from place to place, creating confusion and uncertainty for operators of e-scooters.

In many cases, rules may be clear or consistent, but the existing infrastructure is neither designed for nor able to accommodate those rules. For example, California state law requires e-scooters to be ridden on streets, but streets aren’t prepared to accommodate them.

According to the [Consumer Reports survey](#)⁸ conducted in March 2019:

- 27% of riders are uncertain of the traffic laws they should follow
- 51% ride on the sidewalk, 26% in a bike lane, and 18% in the street, but not a bike lane
- More than 25% say that pedestrians got in the way
- 20% reportedly feel unsafe around car traffic
- 8% reported part of their scooter malfunctioned or didn’t work properly

Insurance Coverage

The pervasiveness of e-scooters operated on busy city streets and sidewalks (typically illegal per local ordinances) is bound to lead to accidents and injuries. But, who's responsible for those accidents? Assuming the scooter companies provide a well-maintained scooter, the answer to this question so far has been the person operating the scooter.

Scooter company legal teams have clearly anticipated these issues and have addressed them through terms of service that so far have protected the company from liability when scooter crashes and injuries inevitably occur. Users unlocking a scooter via the company app agree to several stipulations of use including:

1. Arbitration Agreement – Users agree to arbitration, essentially giving up their right to go to court and hear their dispute by a judge or jury. This agreement extends to waiving rights to join a class action lawsuit against the company.
2. Competent Operator – Users agree that they are “competent operators”, that they are familiar with how the scooter operates, and that they “assume all responsibilities and risks for any injuries and/or medical conditions” that result from crashing while on the scooter.

While some cities require scooter rental companies to obtain a permit from the city and provide proof of insurance before they can operate legally, the app-based operator “training” provided to first time users combined with the operating instructions outlined on the scooter and the terms of use agreements noted above makes it unlikely that the scooter rental company will cover a rider or anyone the rider injures while operating a scooter.

People operating scooters on their personal time should expect to rely on their personal health insurance to cover their personal injuries. In the event that a 3rd party is injured in an accident, the operator may or may not have coverage. According to the National Association of Insurance Commissioners [Consumer Alert](#)⁹ entitled, *Scooter Sharing Creates Insurance Implications for Consumers*, automobile insurance generally omits liability coverage for motor vehicles with fewer than four wheels, and it's unlikely to apply to scooter rentals. Similarly, though most homeowner's policies provide for limited liability coverage while away from a primary residence, a scooter rental could be excluded.

Impact of E-Scooters on Business Insurance Policies

What about when a worker is using a scooter during the workday?

Employees operating a scooter while working or as part of their workday are a different story. If a scooter is used for transportation to/from a client site, lunch meeting, or for some other work related reason, it is likely that an employee injury would be recognized as being compensable under workers' compensation. Similarly, if an employee's operation of a scooter results in personal injury to a 3rd party, there is a possibility of the company's general liability insurance policy responding with coverage depending on the specific circumstances.

One thing is clear; to date, the user of the scooter has been responsible for the losses resulting from crashes when they are operating the scooter. This includes costs for their own injuries as well as the injuries to others and damage to property. If your workers are using e-scooters during their workday

and as part of their work routine, you should be aware and develop a policy on this use, as well as communicate and enforce guidelines to help ensure safe operation. See suggested operating guidelines on the next page or download BTU's **E-Scooter Safe Operating Guidelines** document from the BTU Risk Control [website](http://www.berley-tech/risk-control/) at www.berley-tech/risk-control/.

E-SCOOTER SAFE OPERATING GUIDELINES

If your employees are going to operate electric scooters as part of their job with your approval and knowledge of their use, the following practices should be understood, observed and adopted.

Pre-Use Inspection

Ensure that the scooter is in good operating condition and free of obvious defects.

- Conduct a visual inspection of the scooter to check for:
 - Tire/wheel condition
 - Cracks or damage to the riding deck and the deck/stem interface
 - General integrity (“feel”) of the scooter
 - Operational front-facing white light and rear-facing red reflector or red light
- Once the scooter is unlocked and operational, check the brake to make sure it is working properly
- Upon initial movement, ensure that the scooter accelerator works properly. The scooter should accelerate evenly and releasing the accelerator should result in the scooter smoothly slowing down

ANY DAMAGED OR DEFICIENTLY MAINTAINED SCOOTER SHOULD NOT BE USED and should be reported to the scooter company.

Scooter Operation

Employee operators must follow these rules of the road for the safest scooter operation:

- ***Wear a helmet at all times*** while operating the scooter
- ***Do not ride on sidewalks*** (unless local ordinances allow for this, most do not)
- ***Ride in bike lanes or with traffic***
- ***Maintain control and operate at a safe, reasonable speed***
- ***Stay alert for riding surface conditions*** (potholes, bumps, loose gravel, sewer grating, obstructions, etc.)
- Ride as close as practicable to the right-hand side of the road
- Generally speaking, scooters should follow the same traffic laws as bicyclists. This includes obeying traffic lights. *Know the local rules and regulations for scooter operation*



Scooter Operation (continued)



- Operate with both hands on the handle bars
- Riders must be at least 18 years of age
- Only one rider at a time
- Do not operate after consuming alcohol or while under the influence of any medications or drugs
- Don't ride wearing headphones. In California, wearing headphones (including insert able ear buds) while driving a vehicle or riding a bicycle is a ticketable offense (California Vehicle Code 27400)

Parking

- Park upright and stabilize with kickstand
- Park as close to the curb as possible and outside the pedestrian path of travel
- Park on public property only
- Do not block: pedestrian ramps and walkways, building/property entrances, driveways, loading zones, disability parking and transfer zones, transit stops, crosswalks, benches, parking meters
- Utilize designated scooter parking areas, if available



References

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- ⁹ "National Association of Insurance Commissioners. "Scooter Sharing Creates Insurance Implications for Consumers." Alert. September 2018. Accessed at: https://www.naic.org/documents/consumer_alert_electric_scooter.htm "

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