

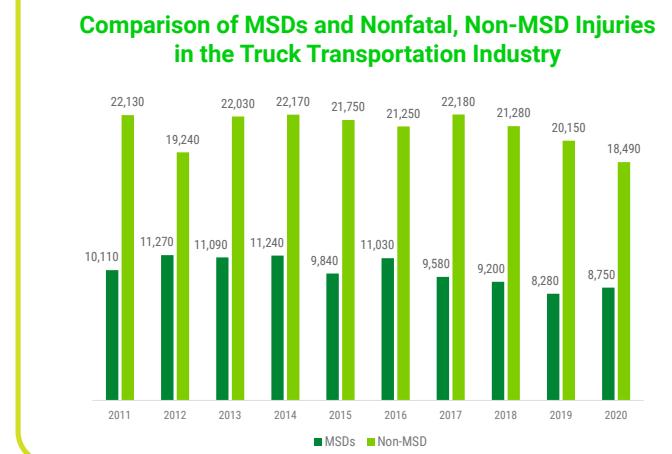
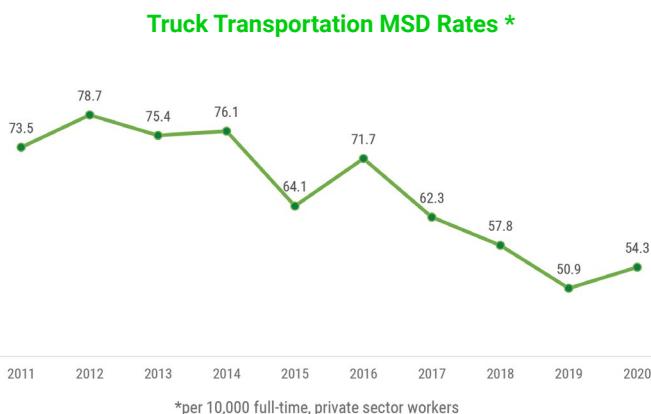
Industry Spotlight: Truck Transportation

Purposeful interventions can prevent work-related musculoskeletal disorders (MSDs).

Injury Trends

While MSD rates in the truck transportation industry – a subsector of the transportation and warehousing industry – have decreased over the last decade, MSDs have accounted for more than a third of all non-fatal workplace injuries within this industry. Based on recent reporting, **Injury Facts** and the **Bureau of Labor Statistics** indicate that for every 10,000 workers, 54 reported cases of MSDs resulting in lost workdays exist.[†]

This contributes to an annual loss of **\$4.67 billion** in nonfatal workplace injuries – including \$450 million being lost for awkward postures and other bodily reactions[‡] alone – across the whole transportation and warehousing industry. Despite technological advancements and increased attention on MSDs in the workplace, the proportion of MSD injuries suffered in this industry has remained unchanged over time.



[†]These numbers represent the number of nonfatal occupational injuries and illnesses involving days away from work with the U.S. and private industry.

[‡]Based on the 2022 Liberty Mutual Workplace Safety Index

Potential Risks

Employers are encouraged to assess the risk factors of their unique workplaces by consulting with their employees. However, **common MSD risk factors** in the truck transportation industry include:

- Sustained sitting
- Whole body vibration
- Manually securing loads
- Moving landing gear
- High forces and awkward postures associated with manual material handling
- Entering and exiting the truck, especially jumping off the truck
- Contact stress
- Awkward postures
- Frequent bending, reaching or lifting
- Fatigue
- Stress
- Unpredictable working hours
- Psychosocial factors (lack of job control, onboard monitoring, extended time away from home, etc.)
- **Obesity** – truck drivers are twice as likely to be obese compared to workers in other industries
- Inadequate **sleep** or **sleep apnea**, both of which have negative health consequences and impact a person's ability to recover after an injury
- Poor nutrition due to limited healthy food options



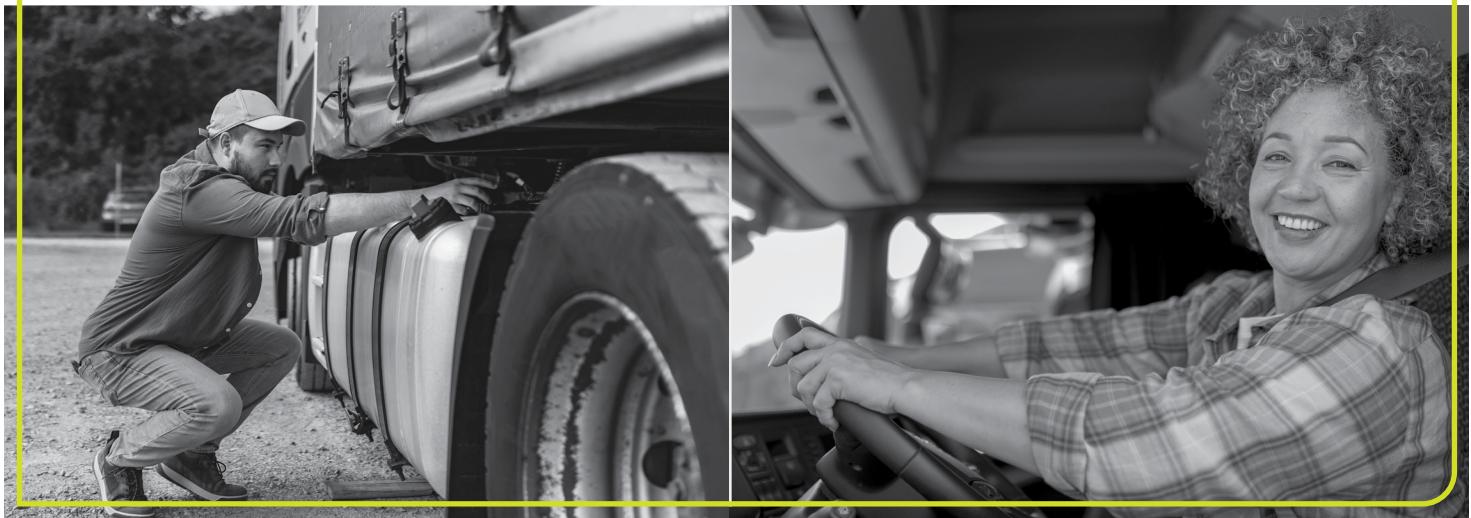
Potential Solutions

The wide variety of risk factors identified in the truck transportation industry require an equally wide variety of solutions to mitigate MSDs. Employers are encouraged to create tailored MSD solutions best suited for their workers. However, **potential solutions** for musculoskeletal pain, discomfort or injury in this industry include:

- Providing vibration attenuation seating, such as active or passive suspension seats
- Conducting regular maintenance of vehicle suspension and tires to reduce noise and vibration
- Having drivers adjust the seat and backrest, and make sure to depress the pedals without twisting their back or moving away from the seat – if necessary, provide a cushion for the seat and backrest, and consider **vehicle modification** by a qualified vehicle rehabilitation specialist
- Eliminating hard surfaces and sharp edges on all armrests and seating structures to reduce contact stress
- Having drivers change hand positions on the steering wheel frequently, thus relieving pressure on the hands – if necessary, provide an appropriate cover for the steering wheel
- Training drivers to position hands on the steering wheel with shoulders relaxed to keep elbows as close to the sides as possible
- Providing manual material handling assistive devices for loading/unloading, such as dollies and fork trucks
- Establishing proper lifting techniques for smaller items that cannot be accommodated by assistive devices
- Offering powered landing gear solutions to alleviate drivers from manual hand cranking
- Adopting tarp or strap solutions to prevent drivers from manually securing loads
- Using auto-tensioning systems to eliminate the need for manually securing loads with chains or straps
- Performing regular risk assessments and updates of driver cab and equipment to ensure quality and safety
- Offering education on common risk factors and vehicle ergonomics
- Allowing flexible scheduling to ensure time for sleep and proper hydration and nutrition
- Promoting and educating on physical activity and proper nutrition to combat obesity and related health concerns that can influence MSD development risk
- Offering organizational support in the form of employee job control or management involvement in employee safety
- Mitigating stress by paying for time spent driving, as opposed to miles driven to account for situations outside the control of the driver, such as traffic jams, mechanical issues and weather
- Training drivers to use three points of contact to climb in and out of trucks
- Offering physical activity-based training and coaching, such as flexibility, strength training and endurance training
- Training workers to allow warm-up/transition time between driving in a seated posture to loading/unloading cargo – for example, when getting in and out of your truck, turn your body first and then step up or down, and after stepping out of the cab, stretch your legs

Key Takeaway

An MSD prevention strategy for workers in the truck transportation industry will require a combination of physical, psychosocial and organizational factors. A range of risk factors can affect those working in the truck transportation industry, though these risk factors mainly revolve around working hours (e.g., stress and fatigue) and equipment (e.g., whole-body vibration and awkward postures). Ergonomics training, organizational support and ergonomically-designed equipment can help to mitigate these risks.



DISCLAIMER: This educational Industry Spotlight was created by the National Safety Council for educational purposes only; as well as to provide general information and a general understanding of musculoskeletal disorders; not to replace or list the comprehensive rules and regulations relating to safety compliance and musculoskeletal disorders; and not to offer specific medical advice. This Industry Spotlight should not be used as a substitute for competent medical advice from a licensed health care professional or medical practitioner.