

# TRUCKS

Heavy trucks, whether tractor-trailers, construction vehicles or garbage haulers, are involved in many serious traffic accidents due to their large weight, high centers of gravity, decreased visibility, poor handling and reduced braking efficiency. In addition, articulated tractor-trailers are subject to additional problems such as jack-knife and trailer sway instabilities. Truck tires and brakes also behave differently from those of passenger cars and require special consideration. Other truck issues that are frequently encountered include driver fatigue and clearance problems when driving through underpasses.



## Expertise

We have extensive experience in most aspects of truck accident investigation and reconstruction including:

- Jack-knife and trailer sway instability simulation
- Truck braking and skid analysis
- Truck rollover
- Construction vehicle accidents

## Questions Answered

Through scientific analysis, we can help you answer pertinent questions such as:

- How fast was the truck traveling before it started skidding?
- Was there adequate trailer clearance when driving through the underpass?
- What caused the truck to jack-knife?
- What was the truck driver able to see just before the accident?

## Case Examples

### Decapitation from Improper Cargo Stowage:

A car passenger was killed when the cargo of an oncoming tractor-trailer struck an underpass and separated from the trailer. We successfully demonstrated that the accident was not caused by an improper stowage design, but rather that the shipper failed to properly stow the cargo by not fully folding the structure before departing. This failure caused the cargo to strike the underpass, dislodging the snow plow-sized component that struck the passenger car, decapitating a passenger.

### Dump Truck Loading:

A dump truck driver was sitting in the cab as his truck was being loaded with earth material when he was allegedly thrown into the roof by the force of the load landing in the dump body. The plaintiff claimed that this impact caused him spinal injuries. We demonstrated, with a combination of truck and biomechanical modeling and testing, that even a full payload bucket would not have caused a large enough truck vibration to have caused the driver to strike his head on the cab ceiling.